

## **CLOUD TECHNOLOGIES**

Aripov Masud Marufovich<sup>1</sup>, Xakimova Yoqutxon Toxirjon qizi<sup>2</sup>. Gofurov Saidakbar Abdulatif ugli<sup>3</sup>

1,2,3Kokand SPI, city Kokand

<sup>1</sup> mazanglik@mail.ru, <sup>2</sup>xakimovaqdpi@mail.ru, <sup>3</sup>yupiter0101@gmail.com

## **Annotation:**

The article discusses the use of cloud technologies in the field of education, examples of the use of cloud technologies in education are given. The importance of the introduction and use of cloud technologies in education of the Republic of Uzbekistan is analyzed. It was revealed that cloud technologies in education allow using a wider range of forms and methods of teaching, and are one of the modern ways of intensifying and optimizing the educational process.

**Key words:** cloud technologies, education system, new educational technologies, cloud.

#### Аннотация:

В статье рассматривается применение облачных технологий в сфере образования, приведены примеры использования облачных технологий в образовании. Проанализирована значимость внедрения и использования облачных технологий в образовании Республики Узбекистан. Выявлено, что облачных технологии в образовании позволяют использовать более широкий спектр форм и методов обучения, и являются одним из современных путей интенсификации и оптимизации учебного процесса.

**Ключевые слова:** облачные технологии, система образования, новые образовательные технологии, облако.

The XXI century is the century of high technologies and mass communication. Now it is difficult to imagine our life without electronic devices. A computer, laptop, tablet, or even a cell phone. These devices have changed the lives of a large number of people.

To date, "cloud" technologies are actively used in all developed countries.

They provide fundamentally new, cost-effective opportunities for business, management, education and research.

Currently, the very rapid growth of information and knowledge in themselves cease to be an end in itself, they are a condition for the successful realization of a person, her professional activity.

Thus, the study of cloud technologies is currently of particular importance:

- > one person has several computers: at work, at home, laptop, tablet, between which you have to constantly transfer files, open and edit documents, think about software compatibility;
- limited amount of computer hard disk or flash card;



- the need to have a software license;
- Cloud technologies are data processing technologies in which computer resources are provided to the Internet user as an online service. The word "cloud" is present here as a metaphor, personifying a complex infrastructure that hides all the technical details behind it.

Currently, the following categories of "clouds" are distinguished:

- Private (private)
- Public (public)
- Hybrid
- > Clan

Private Cloud

**Private Cloud** — infrastructure used by a single organization that includes several consumers. A private cloud can be owned, managed and operated by both the organization itself and a third party (or some combination thereof), and it can physically exist both inside and outside the jurisdiction of the owner. Public Cloud

**Public Cloud** — infrastructure used by the general public. A public cloud can be owned, managed, and operated by commercial, scientific, and governmental organizations (or some combination thereof).

**Hybrid Cloud** — This is a combination of two or more different cloud infrastructures (private, public or public) that remain unique objects, but are interconnected by standardized or private data transfer technologies and applications (for example, short-term use of public cloud resources for load balancing between clouds).

**Community Cloud** — a type of infrastructure intended for use by a specific community (clan) of consumers from organizations with common tasks. A public cloud may be co-owned, managed and operated by one or more of the community or third party organizations (or any combination thereof), and it may physically exist both inside and outside the jurisdiction of the owner.

Thus, Cloud technologies are data processing technologies in which computer resources are provided to the Internet user as an online service.

Today, education in Uzbekistan is facing an obvious need to revise its targets. Namely, in the course of the educational process, a modern person should not so much accumulate knowledge and skills, as acquire the ability to independently and jointly with other people set meaningful goals, build self-education situations, search and produce means and ways to solve problems.

It goes without saying that cloud technologies fit perfectly here, from simple online tools where children can draw and take notes together, to complex technologies for working together on projects. Teachers and students are active participants here. SaaS technologies (rental of IT applications and cloud web services, because there are many absolutely free ones among them) are most suitable here.

As an example of the use of cloud technologies in education, we can call



- electronic diaries, magazines
- personal accounts for students and teachers
- > interactive reception
- thematic forums where students can exchange information
- > search for information where students can solve certain learning tasks even in the absence of a teacher or under his guidance
- cloud data storage.

The directions of using cloud technologies in educational activities include the following:

1. Joint work of employees on documents.

For example, an educational program or an annual plan. This document is created by employees of the administration and teachers responsible for any areas, such as a teacher-psychologist, social pedagogue or responsible for health savings. Everyone is responsible for their own part of the document and cannot make changes to other blocks.

To collaborate in cloud technologies, you need to create or place a document in a cloud storage and provide access to it to those who have a link or email addresses.

2. Joint project work of students.

Students receive topics for projects. Then they are divided into 2 groups. Each group has its own responsibilities. The supervisor creates the document and grants access. These can be links or email addresses. Students work on a project at home or at school, filling out documents with content. When the work is finished, the teacher is granted access.

- If necessary, the teacher leaves comments so that students can make corrections. For example, using Google Docs, the main advantage of which is the ability to edit documents together (texts, drawings, presentations, tables).
- 3. Distance learning. The teacher offers a task to students using an electronic diary. For example, written assignments. The student either creates a document or works with a document. The teacher can view the modified document, since he has access to it. The adoption of cloud technologies is an irreversible process that goes on as usual. In the near future, "clouds" will become as widespread a technology in Russia as in the West.
- 4. Control of students' knowledge. The Quizizz cloud service resembles Kahoot and with its help you can also create and conduct games, quizzes, tests and homework. The main difference is that when starting a quiz in the classroom, students answer questions moving at their own pace and do not depend on the speed of the answers of other participants.

With Quizizz, you can organize competitions and track the results of each student.

Today, cloud technologies are something that everyone uses almost daily. The rapid spread of cloud technologies sets us the task of integrating cloud services into the system of an educational institution. Cloud computing has broad prospects for application in the field of education, scientific research and applied development, as well as for distance learning.

The use of cloud technologies in the educational process makes it possible to make the educational space open.



## References

- 1. Atayeva G.I. A analysis of the possibility of using cloud technologies in higher education at uzbekistan. URL:https://cyberleninka.ru/article/n/analiz-vozmozhnosti-ispolzovaniya- oblachnyh tehnologiy -v- vysshem obrazovanii-uzbekistana /viewer
- 2. Khakimova Yo.T. Tasks of distance learning in higher education institutions and pedagogical and psychological aspects os its organizarion. Galaxy international interdisciplinary research journal. 263-267 b.
- 3. Xakimova Yo.T, Sh.Ahmadaliyev, M.Botirov Teaching form and methods of teacher training in distance education. International Journal of early Childhood Special Education. 2202-2204 b.
- 4. Y.T. Xakimova, Pedagogical opportunities of distance education's didactic support in higher education institutions // American Journal of research. 2021.08.10 1-4 b.
- 5. Muydinovich, R. I., Valentinovna, M. S., & Xabibjonqizi, M. D. (2022). THE ROLE OF INFORMATION TECHNOLOGY IN MODERN METHODS IN THE SYSTEM OF HIGHER EDUCATION. *International Journal of Early Childhood Special Education*, 14(7).
- 6. Muydinovich, R. I. (2022). The Role of Digital Technologies in Growing Secondary School Students to the Profession. *Eurasian Scientific Herald*, *6*, 137-142.
- 7. MUYDINOVICH, R. I. (2020). Problems and Solutions of Online Education in Tertiary Institutions. *International Journal of Innovations in Engineering Research and Technology*, 7(11), 58-60.
- 8. Muydinovich, R. I. (2021). Innovative approach to ensuring the continuity of teaching computer science in the system of continuous education of the New Uzbekistan. *ACADEMICIA: An International Multidisciplinary Research Journal*, 11(4), 1622-1629.
- 9. РАСУЛОВ, И. М., & ТОЛИПОВ, У. К. (2018). РАЗВИТИЯ КУЛЬТУРЫ ПРОЕКТИРОВАНИЯ СТУДЕНТОВ ПОСРЕДСТВОМ КОМПЬЮТЕРНЫХ ТЕХНОЛОГИЙ. In Высшее и среднее профессиональное образование России в начале 21-го века: состояние, проблемы, перспективы развития (pp. 198-203).
- 10. Muydinovich, R. I. (2022). Methodology of using the google classroom mobile application in teaching informatics and information technologies for secondary school students. *European Journal of Interdisciplinary Research and Development*, 3, 158-162.
- 11. Muydinovich, R. I. (2021). Strategic Conditions for the Modernization of the Educational System in the 3-Renaissance. *Central Asian Journal of Theoretical and Applied Science*, *2*(6), 85-92.
- 12. Расулов, И. (2014). Формирование понятий и навыков у учеников при создании ребусов при помощи компьютерных технологий. Актуальные проблемы современной науки, (3), 84-88.
- 13. Muydinovich, R. I. (2022). INFORMATIKA FANI YO 'NALISHIDA ZAMONAVIY DASTURLASH TILLARINI O 'RGANISHNING AHAMIYATI. In *INTERNATIONAL SCIENTIFIC RESEARCH CONFERENCE* (Vol. 1, No. 4, pp. 75-78).
- 14. Muydinovich, R. I. (2021). Problems and solutions of teaching in credit-module system in higher education institutions. *The American Journal of Social Science and Education Innovations*, *3*(04), 721-727.



- 15. Muyidinovich, R. I. (2020). Advantage And Methodological Problems Of Teaching Computer Science In Modern Schools. *The American Journal of Interdisciplinary Innovations and Research*, 2(10), 13-16.
- 16. Rasulov, I. M. (2022). ADVANTAGE AND METHODOLOGICAL PROBLEMS OF TEACHING COMPUTER SCIENCE IN MODERN SCHOOLS. Ученый XXI века, 22.
- 17. Muydinovich, R. I. (2022). RAQAMLI TEXNOLOGIYALARNING RIVOJLANISHI TUFAYLI PAYDO BO'LGAN KASBLAR VA ULARNI O'RGANISH. *PEDAGOGS jurnali*, 13(1), 117-122.
- 18. Muydinovich, R. I. (2022, April). INTEGRITY AND CONTINUITY OF COMPUTER SCIENCE IN THE SYSTEM OF CONTINUING EDUCATION. In *E Conference Zone* (pp. 322-326).
- 19. Muydinovich, R. I. (2022). THE ROLE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN PROVIDING INTERDISCIPLINARY INTEGRATION IN THE EDUCATIONAL PROCESS. Web of Scientist: International Scientific Research Journal, 3(12), 1281-1286.
- 20. Muydinovich, R. I. (2022). VOCATIONAL TRAINING OF SECONDARY SCHOOL STUDENTS BASED ON DIGITAL TECHNOLOGIES. *Galaxy International Interdisciplinary Research Journal*, 10(12), 209-216.
- 21. IE R., Yo S S., TT M. EMERGENCIES OF A SOCIAL COLOR //International Journal of Early Childhood Special Education.  $-2022. T. 14. N^{\circ}2. 7.$
- 22. IE, R., Yo S, S., & TT, M. (2022). EMERGENCIES OF A SOCIAL COLOR. *International Journal of Early Childhood Special Education*, 14(7).
- 23. Yokutkhon, S. (2022). HEALTHY LIFESTYLE. INTERNATIONAL JOURNAL OF SOCIAL SCIENCE & INTERDISCIPLINARY RESEARCH ISSN: 2277-3630 Impact factor: 7.429, 11(12), 254-259.
- 24. Yoqutxon, S. (2022). THE MAIN LAWS OF THE GROWTH AND DEVELOPMENT OF PRESCHOOL CHILDREN. *Galaxy International Interdisciplinary Research Journal*, 10(12), 194-197.
- 25. Muydinovich, R. I., Valentinovna, M. S., & Xabibjonqizi, M. D. (2022). THE ROLE OF INFORMATION TECHNOLOGY IN MODERN METHODS IN THE SYSTEM OF HIGHER EDUCATION. *International Journal of Early Childhood Special Education*, 14(7).
- 26. Makhkamova, D. X. (2023, January). IMPROVING THE METHODOLOGY OF USING SOFTWARE TOOLS FOR THE FUTURE INFORMATICS AND INFORMATION TECHNOLOGY TEACHER. In *E Conference Zone* (pp. 64-69).
- 27. Makhkamova, D. X. (2023). METHODOLOGY OF FORMATION OF FREELANCING SKILLS OF FUTURE TEACHERS OF INFORMATICS AND INFORMATION TECHNOLOGIES THROUGH THE SUBJECT OF INFORMATICS AND DIGITAL TECHNOLOGIES. *Conferencea*, 55-64.
- 28. To'lanboevna, M. M. (2023). YOSHLARNI RUHIY VA MA'NAVIY SOG'LOM TARBIYALASHDA OILANING O'RNI. *ILMIY TADQIQOTLAR VA JAMIYAT MUAMMOLARI*, 1(2), 3-11.



- 29. Tulanboevna, M. M. (2022). PRIORITY RESPONSIBILITIES OF THE MANAGER IN THE FIELD OF PERSONNEL MANAGEMENT AND DEVELOPMENT IN THE SYSTEM OF VOCATIONAL EDUCATION. *Open Access Repository*, 8(12), 561-565.
- 30. Khasanov, A. R. (2022). LEARNING IS A COMPETENCY-BASED APPROACH AS A CONTENT UPDATE STEP. *Galaxy International Interdisciplinary Research Journal*, 10(12), 217-223.
- 31. Khasanov, A. R. (2022). Development of information competence of future informatics teachers as a pedagogical problem. *Open Access Repository*, *9*(12), 73-79.
- 32. Xasanov, A. R. (2021, May). USE OF MODERN PEDAGOGICAL TECHNOLOGIES AND INTERACTIVE METHODS IN TEACHING COMPUTER SCIENCE. In *E-Conference Globe* (pp. 198-199).
- 33. Maxmudovich, X. X. (2022). CULTURE OF THE USE OF INFORMATION TECHNOLOGY IN THE EDUCATIONAL SYSTEM. *Galaxy International Interdisciplinary Research Journal*, 10(12), 268-271.
- 34. Makhmudovich, K. K. (2022). Building Models of Their Functions According to Single-Valued and Multivalued Compatibility Truth Table of Cryptographic Accelerations. *Open Access Repository*, *9*(12), 44-49.
- 35. Sharifovich, A. S., Maxmudovich, H. X., & Mansurovich, B. M. (2022). Application Of Information Compression to Create New Hash Functional Algorithms of Rectangal Matrix Introduction. *Texas Journal of Multidisciplinary Studies*, *9*, 54-57.
- 36. Sharifovich, A. S., Maxmudovich, H. X., & Mansurovich, B. M. (2022). Protocol For Electronic Digital Signature of Asymmetric Encryption Algorithm, Based on Asymmetric Encryption Algorithm Based on the Complexity of Prime Decomposition of a Sufficiently Large Natural Number. *Texas Journal of Multidisciplinary Studies*, 7, 238-241.
- 37. Aripov, M. M., Axmadaliyev, S. S., Xasanov, X. M., & Botirov, M. M. (2022). IMPLEMENTING MINIMUM GRAPH COVERING IN PYTHON. *Ann. For. Res*, 65(1), 10016-10021.
- 38. Останов, К., & Ботиров, М. М. (2022). О НЕКОТОРЫХ ОСОБЕННОСТЯХ ИНТЕГРАТИВНОГО ПОДХОДА ПРИ ИЗУЧЕНИИ МАТЕМАТИКИ. Проблемы науки, (6 (74)), 5-7.
- 39. Mansurovich, B. M., & Ogli, Y. M. D. (2022). PHP DASTURLASH TILI VA UNING IMKONIYATLARI. *Ta'lim fidoyilari*, 18(5), 77-80.
- 40. Ботиров, М. (2017). Морфология твердой фазы биологических жидкостей, как метод диагностики в медицине. *Журнал проблемы биологии и медицины*, (4 (97)), 179-182.
- 41. БОТИРОВ, М. ў¤ ЗА-ўАЛЛА НАВБАТЛАБ ЭКИШДА ОРАЛИЈ МУДДАТДА БЕДА ПАРВАРИШЛАШ. *ЧОРВАЧИЛИК. ВЕТЕРИНАРИЯ*, 8.
- 42. Ботиров, М., Ураимов, Т., & Усмонхужаева, Г. Андижанской сельскохозяйственный институт, Республика Узбекистан ВЛИЯНИЕ ПОКРОВНОГО ЛЮЦЕРНЫ ПОСЕВА HA пожнивные, КОРНЕВЫЕ ОСТАТКИ ВОДОПРОЧНЫХ ΑΓΡΕΓΑΤΟΒ В И ПОЧВЕ. ІЗДЕНІСТЕР, № 2 ИССЛЕДОВАНИЯ, НӘТИЖЕЛЕР 2017 РЕЗУЛЬТАТЫ, 147.



# Academicia Globe: Inderscience Research

**ISSN:** 2776-1010 Volume 4, Issue 3, Mar., 2023

- 43. Valiyevna, K. S., & Kizi, I. N. V. (2022). New vocabulary of the internet language: Methods of formation, reasons for the appearance. *Asian Journal of Multidimensional Research*, 11(5), 84-89.
- 44. Turdaliyevich, M. I. (2022). SOME ISSUES IN THE PROCESS OF USING INFORMATION TECHNOLOGIES IN THE PROCESS OF THE EDUCATIONAL SYSTEM. *Open Access Repository*, 8(12), 289-294. Turdaliyevich, M. I. (2022). Methodological Aspects of Preparing A Future Informatics Teacher for Innovative Activities. *Open Access Repository*, 9(11), 337-339.
- 45. Rakhimovna, S. F. (2022). ANALYSIS OF NATIONAL MODELS FOR THE FORMATION OF ECONOMIC CLUSTERS IN UZBEKISTAN. *Open Access Repository*, 8(12), 530-535.