



ARES

ACADEMIC RESEARCH IN EDUCATIONAL SCIENCES

SJIF 2021: 5.723

2021/06
VOLUME 2
ISSUE 6

ISSN: 2181-1385



We increase scientific
potential together!

ARES.UZ

Exact Sciences
Natural Sciences
Technical Sciences
Pedagogical Sciences
Medical Sciences
Social and Humanitarian Sciences



**THE JOURNAL OF
ACADEMIC RESEARCH IN
EDUCATIONAL SCIENCES**

**ISSN 2181-1385
VOLUME 2, ISSUE 6
JUNE 2021**



www.ares.uz

ACADEMIC RESEARCH IN EDUCATIONAL SCIENCES
SCIENTIFIC JOURNAL
VOLUME 2, ISSUE 6, JUNE, 2021

EDITOR-IN-CHIEF

G. Mukhamedov

Professor, Doctor of Chemical Sciences, Chirchik State Pedagogical Institute

EDITORIAL BOARD

O. Ziyadullaev

Professor, Doctor of Chemical Sciences, Chirchik State Pedagogical Institute

S. Madayeva

Professor, Doctor of Philosophical Sciences, National University of Uzbekistan

R. Bekmirzayev

Professor, Doctor of Physical Sciences, Jizzakh State Pedagogical Institute

G. Nurushiyeva

Professor, Doctor of Philosophical Sciences, National University of Kazakhstan

G. Gafarova

Professor, Doctor of Philosophical Sciences, Chirchik State Pedagogical Institute

Y. Safronova

Professor, Doctor of Pedagogical Sciences, Volgograd State Agricultural University, Russia

G. Ruzmatova

Professor, Doctor of Philosophical Sciences, National University of Uzbekistan

B. Eschamov

Associate Professor, Doctor of Physical Sciences, Chirchik State Pedagogical Sciences

N. Shermuhammedova

Professor, Doctor of Philosophical Sciences, National University of Uzbekistan

B. Khisanayev

Associate Professor, Candidate of Philosophical Sciences, Chirchik State Pedagogical Institute

K. Bobokhudjayev

Associate Professor, Candidate of Physical Sciences, Chirchik State Pedagogical Institute

K. Tulantayeva

Associate Professor, Candidate of Historical Sciences, National University of Kazakhstan

O. Namnenko

Associate Professor, Candidate of Philosophical Sciences, National University of Science and Technology MISIS

M. Rakhimshikova

Associate Professor, Candidate of Philosophical Sciences, South Kazakhstan State University

N. Makhmudova

Senior Teacher, PhD in Philological Sciences, Uzbekistan State World Languages University

M. Sultomov

Associate Professor, Doctor of Chemical Sciences, Jizzakh State Pedagogical Institute

N. Zolotyx

Associate Professor, Candidate of Pedagogical Sciences, Volgograd State Agricultural University, Russia

J. Kholmuminov

Associate Professor, Doctor of Philosophical Sciences, Tashkent State University of Oriental Studies

A. Kholmakhmatov

PhD in Political Sciences, Ministry of Higher and Secondary Specialized Education

D. Bozorov

Associate Professor, Candidate of Philosophical Sciences, Academy of the Armed Forces of the Republic of Uzbekistan

D. Karshiyev

Associate Professor, Candidate of Physical Sciences, Tashkent Pediatric Medical Institute

T. Shevchenko

Associate Professor, Candidate of Pedagogical Sciences, Volgograd State Agricultural University, Russia

C. Nasridinov

Associate Professor, Chirchik Higher School of Tank Command-Engineering

S. Edesukulova

Associate Professor, Doctor of Philological Sciences, Jizzakh State Pedagogical Institute

N. Saitova

Associate Professor, Doctor of Philological Sciences, Jizzakh State Pedagogical Institute

Z. Yakhshiyeva

Associate Professor, Doctor of Chemical Sciences, Jizzakh State Pedagogical Institute

J. Ramatov

Professor, Doctor of Philosophical Sciences, Tashkent State Transport University

U. Khodjamukov

Associate Professor, Doctor of Pedagogical Sciences, Chirchik State Pedagogical Institute

S. Bodirova

Associate Professor, PhD in Philological Sciences, Chirchik State Pedagogical Institute

B. Vudashov

Associate Professor, Tashkent Pediatric Medical Institute

V. Islamov

Associate Professor, Candidate of Biological Sciences, Tashkent Pediatric Medical Institute

S. Allayurova

Associate Professor, Candidate of Philosophical Sciences, National University of Uzbekistan

B. Saparov

Associate Professor, PhD, Tashkent State Agrarian University

M. Djumabekov

Associate Professor, Candidate of Philosophical Sciences, South Kazakhstan State University

K. Toshov

Senior Teacher, PhD, National University of Uzbekistan

A. Karimjonov

Associate Professor, Candidate of Pedagogical Sciences, Chirchik State Pedagogical Institute

T. Khojlyev

Associate Professor, PhD, National University of Uzbekistan

T. Kuyliyev

Associate Professor, Candidate of Philosophical Sciences, Tashkent State Agrarian University

A. Shukurov

Associate Professor, Candidate of Philological Sciences, Chirchik State Pedagogical Institute

N. Khodikova

Associate Professor, Candidate of Philological Sciences, Chirchik State Pedagogical Institute

O. Hayitov

Associate Professor, Doctor of Psychological Sciences, Academy of Public Administration under the President of the Republic of Uzbekistan

I. Ergashev

Professor, Doctor of Political Sciences, National University of Uzbekistan

J. Davletov

Senior Teacher, PhD in Philosophical Sciences, Urgench State University

A. Makhmudov

Doctor of Philosophy in Economical Sciences, Academy of Public Administration under the President of the Republic of Uzbekistan

Editorial Secretary: T. Madalimov

ISSUES OF USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE CONDITIONS OF DIGITAL ECONOMY

Mukaddas Valisherovna Urinova

Applied Mathematics department, lecturer Namangan state University

ABSTRACT

The article examines the use of information and communication technologies in the conditions of digital economy. The importance of the opportunities and benefits offered by information and communication technologies is highlighted. The article also analyzes the objective need to use information and communication technologies in the development of the digital economy. The current state of the information sector in Uzbekistan is analyzed. The article also outlines ways to improve the use of information and communication technologies.

Keywords: digital economy, digital technologies, information, communication, internet, information society.

INTRODUCTION

In today's era of globalization and information, it is difficult to imagine almost all industry and business without information and communication technologies and without their current capabilities.

The widely development of modern communication and information technologies serves as one of the criteria for the level of development of our country and society.

High-tech manufacturing, economic activity, financial services - information and communication technologies and personal computing devices in the Internet format, educational concepts and standards for a wide range of social processes, entertainment and recreation, electronic interaction, digital technology-based economic activity is a new development vector of the global economy with digital status.

In recent years, the rapid introduction of information and communication technologies in the economy of the country is showing its efficiency.

Expansion of opportunities for the introduction and use of digital technologies in the national economy is one of the main tools of ensuring macroeconomic stability.

METHODOLOGY

Consistent work is being done in our country on the development of modern information technologies and communications, the creation of an integrated system of

e-government services, the introduction of new mechanisms of communication between government agencies and the population. In particular, the Decrees of the President of the Republic of Uzbekistan, No. PF-4947 of February 7, 2017 "Actions Strategy of further development of the Republic of Uzbekistan" and PF-5349 of February 19, 2018 "Measures to further develop the field of information technology and communications", serve as a guide in the development of the information and communication technologies.

As the President of the Republic of Uzbekistan Shavkat Mirziyoyev said: "It is necessary to acquire digital knowledge and modern information technologies in order to achieve development. This allows us to take the shortest path to the ascent. Today in the world, information technology is penetrating deep into all areas.

Digital technologies not only improve the quality of products and services; they reduce unnecessary expenses. At the same time, they are also an effective tool in overcoming the most serious flaw that bothers me the most - the source of corruption. We all need to understand this deeply. The widespread introduction of digital technologies in the social sphere as well as in state and public governance, can increase efficiency and dramatically improve people's lives"[1].

Although information technology has existed at different stages of human development, the peculiarity of today's information society is that, for the first time in the history of civilization, the power spent for knowledge and production outweighs the cost of energy, raw materials and consumables and it means information technology is a leader among all new technologies. The set of the information technology industry consists of computers, communication systems, databases, knowledge bases and related areas of activity.

The functions of information and communication technologies are:

- Information searching and collection;
- Information analysis;
- Development of new information;
- Data processing and storage;
- Solving optimization problems, etc.

RESULTS

Today, the use of information systems in the world is growing rapidly. According to Datareportal.com's "Digital 2020" report in January 2020, 59 percent of the world's 7.75 billion people, or 4.54 billion, are Internet users, 67 percent (5.19 billion) are mobile phone users, and 3.80 billion, 49% of the world's population is an

active user of social media [6]. In turn, these numbers are growing every year. However, Internet users are people of different ages, different incomes and social status. Interestingly, among the active users of Internet resources, every year there is an increase in older people who communicate on social networks and use the Internet to search for information.

Respectively with global trends, the total number of Internet users in Uzbekistan has exceeded 22 million, and the number of mobile Internet users has exceeded 19 million [7]. Also, the number of mobile base stations is increasing and the capacity of the international data transmission network is accelerating (Table 1).

Table1.
Dynamics of information and communication indicators in Uzbekistan¹

No	No Indicators	2015	2016	2017	2018	2019
1	Total number of Internet users (million)	10,2	12,1	14,7	20	22
2	Number of mobile subscribers (mln.)	20,1	20,6	21,4	22,8	23,9
3	Number of mobile base stations (pcs)	14921	16265	18194	22178	26017
4	International data network bandwidth (Gbit/s)	16,07	25,7	64,2	1200	1200

DISCUSSION

At present, information and communication technologies are one of the key components of economic development. Almost all firms and consumers are developing the use of computers and the Internet for economic purposes, such as providing consumers with more diversified and customized products, improving product quality, selling goods and services. We all know that the expansion of information and communication technologies in developed and developing countries and its impact on economic growth has been growing rapidly over the past two decades. However,

domestic data on computer, mobile phone and Internet users reflect different indicators of the spread of information and communication technologies across countries and regions, despite the recent global economic crisis, the use of information and communication technologies shows an increasing trend. The modern development and achievements of information technology show the need for informatization of all areas of science and human activity. Informatization of society means the use of information as a wealth of society, which provides economic development, scientific and technological progress of the country, the acceleration of the process of democratization and intellectualization of society.

The impact of information and communication technologies on the development of society can be assessed on the basis of the following factors:

- accelerating the implementation of industry programs on the use of information technology in the modernization of enterprises, technical and technological re-equipment, the transition to international quality standards;
- accelerating the exchange of data using in the Internet, studying the requirements of foreign and domestic markets, supporting competitiveness and stimulating exports;
- improving the skills of society in the use of information technology, the implementation of measures;
- Maintaining high rates of economic growth by stimulating demand in the domestic market in the context of growing demand for information technology in the world market.

CONCLUSION

To sum up, in a globalized world, the integration of society and information has become an important strategic factor in the development of any state. After all, today it is impossible to modernize and modernize the country, to achieve sustainable development without the widespread development of information and communication technologies, the Internet.

REFERENCES

1. Address of the President of the Republic of the Uzbekistan to the Oliy Majlis. // <https://president.uz/uz/lists/view/3324>
2. Decree of the President of the Republic of Uzbekistan dated February 7, 2017 No PF-4947 "Actions Strategy for further development of the Republic of Uzbekistan" // "Khalq suzi". February 8, 2017.

3. Decree of the President of the Republic of Uzbekistan dated February 19, 2018 No PF- 5349 "Measures to further development of the field of information technology and communications" // <https://lex.uz/docs/3564970>
4. Aripov A.N., Iminov T.K. "Management issues in the field of information and communication technologies of Uzbekistan" Monograph -P.: Science and technology, 2005.
5. Khurramov O. K., Fayzieva S. A., Saidova F. K., Khalilov B. B., Fayzieva S. K. Directions for improvement digital tourism and tourism info structure in Uzbekistan. Journal of Critical Reviews, 7 (5), p.p. 366-369, 2020.
6. Kuzmanova, G. B., Kuzmanova, N. N. (2021). Umumiy o'rta ta'lim maktab matematika darslarida o'rganiladigan konsentratsiyaga va aralashmaga doir matnli masalalarini yechishni ba'zi tadbiqlari. Ekonomika i sotsium, 5(84).
7. Kuzmanova, G. B. (2021). Umumiy o'rta ta'lim maktablari matematika darslarida matnli masalalarini o'rgatishda innovatsion klaster usulining ahamiyati. Ekonomika i sotsium, 4(83).
8. Kuzmanova, G. B. (2021). Umumiy o'rta ta'lim maktablarida matnli masalalarning ta'limiy ahamiyati. Academic research in educational sciences, 2(3), 1154-1159.
9. N. B. Otojonova (2021) Mexanik harakatga doir masalalarda differensial tenglamalardan foydalanish. Экономика и социум, 83(4), 211-223
10. Tadjibaev, I. U. (2021). On the problem of the specific frequency of globular clusters. EUREKA: Physics and Engineering, 2, 137-142.
11. Нуритдинов, С. Н., Таджибаев, И. У., Растворгувеев, А. С. (2021). К проблеме классификации шаровых скоплений. расчет степени концентрации звезд для 26 скоплений. Письма в Астрономический журнал, 47(3), 197-204.
12. Таджибаев, И. К. (2020). К теории происхождения систем шаровых скоплений вокруг галактик. Евразийский союз ученых, 7-2, 59-64.
13. Нуритдинов, С., Кутлимуратов, С., Таджибаев, И. (2020). Специальный сводный каталог карликовых галактик во вселенной до расстояний 121 мпк. Uzbek Journal of Physics, 22(4), 329.
14. Tadjibaev I. U., Begaliev, J. U., Usmonov Sh. N. (2020). The role of physics in career guidance. Pedagogy & Psychology. Theory and practice International scientific journal, 30(4), 31.
15. Таджибаев, И. У., Нуритдинов, С. Н. (2019). Новая классификация шаровых скоплений звезд. «Узбекский физический журнал», 21(3), 196-199.
16. Tadjibaev, I. U., Nuritdinov, S. N. (2019). A new classification of the globular star clusters. Uzbekiston Fizika Zhurnali, 21(3), 196-199.

17. Ganiev, J. M., Tadjibaev, I. U. (2018). Small-Scale Modes on the Background of Non-Stationary Disc-Like Models of Self-Gravitating Systems. Modern Star Astronomy. 1, 104-106.
18. Таджибаев, И. У., Нуритдинов, С. Н., Муминов, А. А. (2017). Нелинейная космология системы шаровых скоплений вокруг галактик. Український фізичний журнал, 62(12), 1050-1057.
19. Otojonova N. B. (2021). Cluster method in organizing mathematics lessons. Scientific progress, 2(2), 64-66.

CONTENTS
Volume 2, Issue 6, JUNE, 2021

213. Исламов, И. С. (2021). ВЛИЯНИЕ ТРЕНИРОВКИ НА ИММУНИТЕТ ПЛОВЦА. ACADEMIC RESEARCH IN EDUCATIONAL SCIENCES, 2(6), 1451-1461. <https://doi.org/10.24412/2181-1385-2021-6-1451-1461>
214. Эшназарова, М. Ю., & Нурматов, Б. Х. (2021). ДУАЛ ТАЪЛИМНИНГ НАЗАРИЙ АСОСЛАРИ. ACADEMIC RESEARCH IN EDUCATIONAL SCIENCES, 2(6), 1462-1467. <https://doi.org/10.24412/2181-1385-2021-6-1462-1467>
215. Абдухалирова, А. Э. (2021). ХИВА ХОНЛИГИ СОЛИҚ ТИЗИМИНИНГ ЎРГАНИЛИШИГА ДОИР. ACADEMIC RESEARCH IN EDUCATIONAL SCIENCES, 2(6), 1468-1474. <https://doi.org/10.24412/2181-1385-2021-6-1468-1474>
216. Topilova, M. M. (2021). MAKTABGACHA TA'LIM MUASSASALARIDA BOLALARNI TABIAT BILAN TANISHTIRISHNING TAMOYILLARI. ACADEMIC RESEARCH IN EDUCATIONAL SCIENCES, 2(6), 1475-1480. <https://doi.org/10.24412/2181-1385-2021-6-1475-1480>
217. Буронов, А. К., Зияев, З. М., Ходлиев, О. Э., & Файзулаев, А. З. (2021). КУЗГИ ВА ДУВАРАК БУҒДОЙ НАВЛАРИНИНГ ЮҚОРИ АВЛОД ЛИНИЯЛАРИДА МИҚДОРИЙ ВА СИФАТ БЕЛГИЛАРИ БЎЙИЧА КЛАСТЕР ТАҲЛИЛ. ACADEMIC RESEARCH IN EDUCATIONAL SCIENCES, 2(6), 1481-1488. <https://doi.org/10.24412/2181-1385-2021-6-1481-1488>
218. Бекбергенова, З. У., & Сарсенбаева, А. К. (2021). ДИОЛОГИК НУТҚНИНГ КОММУНИКАТИВ ВА БАДИЙ-ЭСТЕТИК МОХИЯТИ ХУСУСИДА. ACADEMIC RESEARCH IN EDUCATIONAL SCIENCES, 2(6), 1489-1500. <https://doi.org/10.24412/2181-1385-2021-6-1489-1500>
219. Babadjanova, N. X. (2021). MIFOLOGIK DUNYOQARASHLARNING O'ZIGA XOS XUSUSIYATLARI VA ULARNING INSON ONGIGA TA'SIRI. ACADEMIC RESEARCH IN EDUCATIONAL SCIENCES, 2(6), 1501-1505. <https://doi.org/10.24412/2181-1385-2021-6-1501-1505>
220. Jo'raboyev, B. B. (2021). O'ZBEKISTON MADANIYAT VA URF-ODATLARI. ACADEMIC RESEARCH IN EDUCATIONAL SCIENCES, 2(6), 1506-1513. <https://doi.org/10.24412/2181-1385-2021-6-1506-1513>
221. Отажонова, Д. Б. (2021). ЁЗМА НУТҚ МАДАНИЯТИДА ЛЕКСИК ВА СЕМАНТИК БИРЛИКЛАРНИНГ ИЖТИМОИЙ ЧЕКЛНИШИ. ACADEMIC RESEARCH IN EDUCATIONAL SCIENCES, 2(6), 1514-1519. <https://doi.org/10.24412/2181-1385-2021-6-1514-1519>
222. Jonuzokova, C. M. (2021). PECULIARITIES OF LITERARY TRANSLATION. ACADEMIC RESEARCH IN EDUCATIONAL SCIENCES, 2(6), 901-904. <https://doi.org/10.24412/2181-1385-2021-6-901-904>
223. Urinova, M. V. (2021). ISSUES OF USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE CONDITIONS OF DIGITAL ECONOMY. ACADEMIC RESEARCH IN EDUCATIONAL SCIENCES, 2(6), 1520-1525. <https://doi.org/10.24412/2181-1385-2021-6-1520-1525>
224. Рахимов, А. К., & Мирзаева, Н. А. (2021). ЗНАЧЕНИЕ МЕЖДУНАРОДНЫХ ОЦЕНОЧНЫХ ПРОГРАММ (PISA, PIRLS) В РАЗВИТИИ ЕСТЕСТВЕННО-НАУЧНОЙ ГРАМОТНОСТИ УЧАЩИХСЯ. ACADEMIC RESEARCH IN EDUCATIONAL SCIENCES, 2(6), 1526-1534. <https://doi.org/10.24412/2181-1385-2021-6-1526-1534>