Trends in the formation of information flows and information culture in the digital information space

Karimov Ulmasbek Umaralievich
doctor of philosophy (PhD) in philosophical sciences, senior lecturer
Fergana State University
Fergana, Uzbekistan
https://orcid.org/0000-0001-8417-6983

FOR CITATION
Karimov U.U. Trends in the formation of information flows and information culture in the digital information space // Modern Science, Technology and Innovation: Proceedings of the International Scientific and Practical Conference (ZFTI–2026, 5 November 2026). – 2026. – P. 77–83. – https://doi.org/10.66073/ReFocus-Conf/051114
QR code — link to the DOI page

ABSTRACT
This article presents a scientific and theoretical analysis of the specific features of the formation, dissemination, and consumption of information flows, as well as the trends in the development of information culture in the context of the evolving digital information space. It examines the impact of information and communication technologies, the Internet, social media platforms, and artificial intelligence on information exchange processes. The article highlights the importance of media literacy, critical thinking, assessing information reliability, digital security, and information ethics in the modern information environment. Furthermore, proposals and recommendations are developed regarding the priority areas for fostering information culture and ensuring the effective and responsible use of information in the digital society.

Keywords: digital information space, information flow, information culture, digital technologies, information and communication technologies, media literacy, critical thinking, information security, social networks, artificial intelligence.

ANNOTATSIYA
RAQAMLI AXBOROT MAKONIDA AXBOROT OQIMI VA AXBOROT MADANIYATINING SHAKLLANISH TENDENSIYALARI
Karimov O'lmasbek Umaraliyevich, falsafa fanlari bo'yicha falsafa doktori (PhD), katta o'qituvchi, Farg'ona davlat universiteti, O'zbekiston, Farg'ona

Ushbu maqolada raqamli axborot makonining rivojlanishi sharoitida axborot oqimlarining shakllanishi, tarqalishi va iste'mol qilinishining o'ziga xos xususiyatlari hamda axborot madaniyatining shakllanish tendensiyalari ilmiy-nazariy jihatdan tahlil qilingan. Shuningdek, axborot-kommunikatsiya texnologiyalari, internet tarmog'i, ijtimoiy media platformalari va sun'iy intellektning axborot almashinuvi jarayonlariga ta'siri yoritilgan. Zamonaviy axborot muhitida media savodxonlik, tanqidiy fikrlash, axborotning ishonchliligini baholash, raqamli xavfsizlik va axborot etikasi kabi omillarning ahamiyati asoslab berilgan. Bundan tashqari, axborot madaniyatini rivojlantirishning ustuvor yo'nalishlari hamda raqamli jamiyat sharoitida axborotdan samarali va mas'uliyatli foydalanish masalalari yuzasidan taklif va tavsiyalar ishlab chiqilgan.

Kalit so'zlar: raqamli axborot makoni, axborot oqimi, axborot madaniyati, raqamli texnologiyalar, axborot-kommunikatsiya texnologiyalari, media savodxonlik, tanqidiy fikrlash, axborot xavfsizligi, ijtimoiy tarmoqlar, sun'iy intellekt.

АННОТАЦИЯ

ТЕНДЕНЦИИ ФОРМИРОВАНИЯ ИНФОРМАЦИОННЫХ ПОТОКОВ И ИНФОРМАЦИОННОЙ КУЛЬТУРЫ В ЦИФРОВОМ ИНФОРМАЦИОННОМ ПРОСТРАНСТВЕ

Каримов Улмасбек Умаралиевич, доктор философии (PhD) по философским наукам, старший преподаватель, Ферганский государственный университет, Фергана, Узбекистан

В данной статье проведён научно-теоретический анализ особенностей формирования, распространения и потребления информационных потоков, а также тенденций формирования информационной культуры в условиях развития цифрового информационного пространства. Освещено влияние информационно-коммуникационных технологий, сети Интернет, платформ социальных медиа и искусственного интеллекта на процессы информационного обмена. Обоснована значимость таких факторов, как медиаграмотность, критическое мышление, оценка достоверности информации, цифровая безопасность и информационная этика в современной информационной среде. Кроме того, разработаны предложения и рекомендации по приоритетным направлениям развития информационной культуры, а также вопросам эффективного и ответственного использования информации в условиях цифрового общества.

Ключевые слова: цифровое информационное пространство, информационный поток, информационная культура, цифровые технологии, информационно-коммуникационные технологии, медиаграмотность, критическое мышление, информационная безопасность, социальные сети, искусственный интеллект.

In today's era of globalization and digital transformation, information is becoming one of the key strategic resources for the development of society. Due to the rapid advancement of information and communication technologies, the widespread use of the Internet and the growing popularity of social media platforms, the processes of creating, transmitting, receiving, and utilizing information are undergoing fundamental changes. As a result, modern society is witnessing an acceleration of information flows, an expansion of the information space, and the increasing integration of digital communication tools into everyday life. These processes not only increase people's demand for information but also necessitate the development of skills related to searching, selecting, analyzing, and effectively utilizing information.

In the context of the expansion of the digital information space, the content, forms, and speed of dissemination of information flows are changing, while new mechanisms of information exchange are emerging. In particular, the development of social networks, electronic mass media, digital platforms, and artificial intelligence technologies is having a significant impact on information consumption culture. At the same time, the growing volume of information, the spread of unverified data, fake news, manipulative information, and issues related to information security are becoming increasingly relevant. Under these circumstances, enhancing individuals' information literacy and information culture is considered one of the important socio-pedagogical tasks.

Information culture refers to the ability of a modern individual to consciously receive information in the digital environment, assess its reliability, independently search for necessary information, analyze and store it, and use it responsibly. This concept encompasses not only the skills required to use technological tools but also critical thinking, adherence to ethical standards, protection of personal data, and digital communication culture when working with information. In this regard, the development of information culture emerges as an important factor in enhancing an individual's intellectual potential, social engagement, and ability to adapt to modern society.



Figure 1. Information flows in the digital information space

Humanity is living in an era in which information flows are becoming increasingly rapid and information technologies capable of transforming the attitudes, psychological states, goals, aspirations, and even the entire way of thinking of the world's population have emerged. This is one of the distinctive achievements of modern civilization. It is a remarkable phenomenon that contributes to bringing peoples, nations, and states closer together, facilitating the management of global socio-political processes, and fostering the emergence of a shared global outlook, collective consciousness, and common values.

The emergence of computers has transformed the entire globe into a single information space, creating a reality in which the destiny of each country has become closely interconnected with that of the entire world. Problems related to information, information flows, and information culture have acquired different meanings and significance across various historical periods, shaped by laws and patterns that have evolved over time.

"Today's rapidly developing modern technologies are exerting both positive and negative influences on society. In particular, the Internet has created opportunities for people to exchange opinions, obtain information quickly and easily, and disseminate both useful and harmful messages without significant restrictions. It has transcended geographical boundaries and brought distant places closer together"[1, p. 5]. It is well known that in today's world, characterized by the rapid advancement of science and technology, the volume of scientific knowledge, concepts, ideas, and information is increasing dramatically. On the one hand, this process contributes to the emergence of new branches and fields of science and technology; on the other hand, it breaks down the boundaries between established scientific disciplines and necessitates the acceleration of integration processes.

Our country is undergoing profound transformations, while processes aimed at consistently reforming and liberalizing all aspects of political, social, and economic life, as well as democratizing and modernizing society, are progressing at a rapid pace. In this regard, the significant objectives identified and systematically implemented to build a strong civil society are creating a solid foundation for further development. The current stage of development of the Republic is characterized by fundamental qualitative changes taking place across all spheres of social life. It is an undeniable fact that achieving this ambitious objective is closely linked to enhancing the intellectual potential of citizens. This, in turn, is inextricably connected with the proper organization of education and upbringing. To achieve this, it is essential, first and foremost, to systematize and establish a sound theoretical foundation for the processes of education and upbringing.

Today, global development is taking place in the era of information and innovation. The driving force behind this process is a series of transformations based on scientific achievements, the rapid adoption of new technologies, and their effective management. As a result, relations associated with the exchange and implementation of innovations among economic enti-

https://doi.org/10.66073/ReFocus-Conf/051114

ties are becoming increasingly prominent. The scientific study of the concept of "information flow" has subsequently become an integral component and source of philosophical knowledge. However, one-sided and scientifically inadequate approaches to defining and classifying this concept still exist. Therefore, understanding and examining the problems associated with the origin and development of information flows on the basis of their scope and underlying patterns is of considerable methodological importance for their further development.

The concept of "informatization" is often used in contemporary literature as a synonym for the terms "electrification," "computerization," and "automation." However, these concepts differ in their philosophical status and essence. Therefore, some researchers who fail to recognize the distinctive characteristics of these processes interpret informatization as being identical to computerization. "Information culture," in turn, is manifested in the ability to store information, identify its essential aspects, classify it into relevant categories, assess its accuracy and reliability, examine its ideological foundations, and identify the sources of information. Furthermore, information culture encompasses both technical-technological and socio-cultural dimensions.

From a technical and technological perspective, information culture refers to a system of knowledge about technical and information tools used for obtaining, processing, and transmitting information, as well as methods of their rational and effective application. Today, the process of information consumption also requires a distinct culture of its own, which should become an integral component of humanity's broader spiritual culture.

The culture of information consumption is of particular importance under current conditions, when the Internet is developing rapidly as one of the characteristic features of globalization processes. Therefore, in the modern era, individuals have such extensive opportunities to select information that any information failing to meet their needs is likely to lose its value almost immediately. From this perspective, information consumption today differs fundamentally from that of previous periods. Undoubtedly, access to necessary information has become a requirement of the times. However, nowadays, the dissemination of information about individuals, social groups, nations, society, and the state itself is also of considerable importance. This issue has two main aspects. First, given the expanding capabilities of the Internet in the modern era, it is essential to make extensive use of these opportunities to strengthen our country's position within the international community.

Today, the process of informatization of society encompasses the economic, political, socio-cultural, and other dimensions of social life. Accordingly, informatization is a multidimensional process in which technical and technological, social, socio-economic, political, and cultural aspects are developed in an integrated manner. *"Fundamental changes take place in such a society not only in the fields of production and technology but also in its socio-economic and spiritual life. It is well known that any field of activity develops through both extensive and intensive approaches. The process of informatization is no exception. While extensive development prevails in its initial stages, it is subsequently replaced by intensive development" [2, p. 77].*

The extensive approach began with the emergence of computers. At this stage, the following issues were addressed: establishing a scientific foundation for the informatization of society; creating a technological basis for the mass production of computing equipment; identifying the information needs of various social, professional, and age groups; establishing structures for the development, documentation, distribution, and promotion of software; creating the necessary conditions for large-scale training in the use of computing equipment; organizing a system of continuous professional development in connection with the introduction of new tech-

https://doi.org/10.66073/ReFocus-Conf/051114

nologies into the education system; and developing communication infrastructure to ensure the provision of information services.

As these scientific and methodological challenges were gradually addressed, the extensive approach expanded to cover virtually all areas of human activity, including science, labor, design, education, and consumption. The rapid growth of informatization and the development of automation methods led to the creation of computers and the subsequent computerization of various spheres of human life.

Today, the information environment and communication tools are exerting a significant influence on modern society. In particular, the rapid development of digital technologies, the Internet, and social media platforms has brought information exchange processes to a new level. This, in turn, has a direct impact on the worldview, social consciousness, values, and information consumption culture of members of society. Alongside creating extensive opportunities for people through the rapid dissemination, accessibility, and openness of information, these developments also necessitate the ability to properly understand, select, and critically analyze information flows.

At the same time, in the modern information environment, it is becoming increasingly important to distinguish between reliable and false information, assess the objectivity of information sources, and develop a critical attitude toward various information attacks and manipulative influences. Under these circumstances, information culture emerges as one of the key factors determining the spiritual and intellectual potential of society. Indeed, the rational and responsible use of information plays an important role in shaping each individual's activities in the digital environment, social interactions, and position within modern society.

The culture of information consumption, like other forms of culture, performs a number of functions. These include communicative, regulatory, informational, and axiological (evaluative) functions. Within the scope of the problem under consideration, the axiological function of information consumption culture is of particular importance. For example, alongside a vast amount of positive information, the Internet also disseminates content that may have a negative impact on Eastern culture, particularly on the moral values and behavioral norms of our society. Naturally, such information may adversely affect the ideological and moral upbringing of our citizens, especially young people.

Preventing such negative influences is possible primarily through the development of information culture. The key issue lies in who uses this resource and for what purposes. In other words, rather than focusing on searching for negative aspects of the Internet, it is more appropriate to utilize its opportunities to promote the reputation and achievements of our country on the international stage. This is because the Internet is a virtual yet objective phenomenon, and its entry into our lives can no longer be controlled or prevented.

Rather than attempting to keep people away from the Internet, it would be more appropriate to teach them how to use it rationally and responsibly and to strive to enhance their culture of information consumption. Indeed, when individuals possess a well-developed culture of information consumption, the evaluation of messages and information that contradict national values is guided by their established value systems. As noted, *"...when evaluating information, an individual's personal views and system of values inevitably play an important role. However, in most cases, particularly when the phenomenon being evaluated belongs to a different culture, the system of values internalized through the culture to which we belong takes precedence and manifests itself in its entirety. ...It is through the evaluative function of culture that selection takes place, thereby ensuring*

https://doi.org/10.66073/ReFocus-Conf/051114

cultural stability, identity, uniqueness in each historical period, as well as continuity and succession"[3, p. 37].

From this perspective, taking into account national values, historical heritage, moral and ethical standards, and the socio-cultural characteristics of society is of particular importance in the process of developing and strengthening the culture of information consumption. In particular, alongside increasing the younger generation's engagement in the digital information environment, it is essential to develop their ability to critically analyze information, understand its underlying meaning and content, and distinguish reliable sources from unreliable ones. In this regard, cooperation among educational institutions, families, and the wider community plays a particularly important role.

Thus, the culture of information consumption reflects not only an individual's ability to work with information but also their awareness of national identity, spiritual resilience, and social responsibility. Therefore, ensuring harmony between national and universal human values in the digital information space and fostering a culture of conscious, purposeful, and responsible information consumption constitute important tasks facing modern society.

CONCLUSION

In conclusion, the rapid development of the digital information space is fundamentally transforming the content, forms, and mechanisms of information flows in modern society. The advancement of information and communication technologies, the expansion of the Internet, social media platforms, and artificial intelligence capabilities are increasing the speed and scale of information exchange, while placing new demands on how individuals receive, process, and utilize information.

The research findings indicate that the development of information culture in the digital information space is closely associated not only with the acquisition of skills in using technological tools but also with the formation of competencies such as critical thinking, media literacy, the ability to assess the reliability of information, and adherence to digital security principles. In particular, amid the widespread dissemination of fake news, disinformation, and manipulative content, the ability of information consumers to think independently and critically evaluate information sources is of particular importance.

Furthermore, the development of information culture is a continuous process that requires cooperation among the education system, families, mass media, and the wider social environment. Therefore, promoting digital and media literacy in educational institutions and teaching young people how to search for, select, analyze, and effectively use information are among the pressing priorities. In this regard, alongside introducing modern information technologies into the educational process, it is essential to incorporate the principles of information ethics and digital security.

The following proposals and recommendations can be put forward within the framework of this study:

1. *Expand educational programmes aimed at developing information and media literacy among the population, particularly young people.*
2. *Foster critical thinking and fact-checking skills when using digital information sources.*
3. *Systematically integrate knowledge of information culture, digital ethics, and cybersecurity into the educational process at educational institutions.*

https://doi.org/10.66073/ReFocus-Conf/051114

4. *Promote responsible information exchange and a culture of information consumption on social media platforms.*
5. *Pay particular attention to information accuracy, copyright protection, and personal data privacy when using artificial intelligence and digital platforms.*

In general, the development of information culture in the digital information space is one of the key factors in ensuring society's intellectual potential, information security, and social stability. By developing individuals' competencies in working with information and fostering a conscious and responsible attitude towards information, it is possible to create the necessary conditions for the sustainable development of a digital society. Therefore, enhancing information culture should be regarded as one of the priority scientific and practical objectives in the context of modern digital transformation.

REFERENCES

1. Muhammad Amin Yahyo. Internetdagi tahdidlardan himoya. Yordamchi o‘quv qo‘llanma. Toshkent, 2016-y.
2. Tojiyev M., Salaxutdinov R., Barakayev M., Abdalova S. Ta’lim jarayonida zamonaviy axborot texnologiyalari. Toshkent, 2001-y.
3. Shermuhamedov S., Ochildev A. Madaniyat va sivilizatsiya. Farg‘ona, 2000-y.
4. Karimova, G., & Makhamadaliev, L. (2022). The importance of innovative ideas in increasing the effectiveness of education. *Asian Journal of Research in Social Sciences and Humanities*, *12*(6), 143-148.
5. Каримова, Г. Й. (2021). АХЛОҚ-МАЪНАВИЙ ТАҲДИДЛАРГА ҚАРШИ КУРАШНИНГ МАФКУРАВИЙ УСУЛИ СИФАТИДА. *Экономика и социум*, (6-1 (85)), 707-710.
6. Teshaboev, M. M. (2023). Prospects for improving the quality of education and education without corruption in the new Uzbekistan. *Research Focus*, *2*(1), 534-541.
7. Тешабаев, М. М. (2011). Формирование основ нравственной культуры личности в образовательном процессе и гуманистическое мировоззрение. *Credo new*, (1), 19-19.
8. Тураев, Б. О., & Ризаев, И. И. (2022). Особенности проявления искусственного интеллекта в бытии человека. In *Новые информационные технологии и системы (НИТиС-2022)* (pp. 361-363).
9. Karimov, A., & Muxammadjonov, X. (2020). Information technologies: Information education and informatics. *Экономика и социум*, (8 (75)), 40-43.
10. Avazbek, K. (2026). INNOVATIVE TECHNOLOGIES AND CYBERSECURITY ISSUES IN THE DIGITAL EDUCATION SYSTEM. *Новости образования: Исследование в XXI веке*, *4*(41), 199-203.