



ENSURING FINANCIAL SECURITY OF TELEGRAM USERS IN  
THE DIGITAL ERA

*Daminova Barno Esanovna,*

*Associate Professor, Department of Algorithms and Programming  
Technologies, Karshi State University, [barnod@mail.ru](mailto:barnod@mail.ru)*

*ORCID: 0009-0001-4211-6082*

*Umrzoqov Dilshod Ilhom o'g'li,*

*Student of Karshi State University, [dilshodumrzoqov01@gmail.com](mailto:dilshodumrzoqov01@gmail.com)*

**Annotation.** *The rapid expansion of digital communication platforms has significantly transformed financial interactions, making them more accessible yet increasingly vulnerable to cyber threats. Telegram, as one of the fastest-growing messaging platforms, has become a hub for financial transactions, business communications, and cryptocurrency exchanges. However, this growth has also attracted cybercriminal activities such as phishing, fraud schemes, identity theft, and unauthorized transactions. This article explores the key risks associated with Telegram usage in financial contexts and proposes comprehensive strategies to ensure users' financial security. The study highlights technological, educational, and regulatory approaches, emphasizing the role of user awareness and platform responsibility. The findings demonstrate that a combination of secure practices, advanced encryption, and digital literacy is essential for mitigating financial risks.*

**Keywords.** *Telegram security, financial safety, cybercrime, phishing attacks, digital privacy, online fraud, cryptocurrency security, data protection, user awareness*

**Аннотация.** *Быстрое расширение цифровых коммуникационных платформ значительно изменило финансовые взаимодействия, сделав их более доступными, но в то же время все более уязвимыми для киберугроз. Telegram, как одна из самых быстрорастущих платформ обмена сообщениями, стала центром финансовых транзакций, деловой переписки и обмена криптовалютой.*



Однако этот рост также привлек киберпреступность, такую как фишинг, мошеннические схемы, кража личных данных и несанкционированные транзакции. В данной статье рассматриваются ключевые риски, связанные с использованием Telegram в финансовом контексте, и предлагаются комплексные стратегии обеспечения финансовой безопасности пользователей. В исследовании освещаются технологические, образовательные и регуляторные подходы, подчеркивается роль осведомленности пользователей и ответственности платформы. Результаты показывают, что сочетание безопасных методов, передового шифрования и цифровой грамотности имеет важное значение для снижения финансовых рисков.

**Ключевые слова.** безопасность Telegram, финансовая безопасность, киберпреступность, фишинговые атаки, цифровая конфиденциальность, онлайн-мошенничество, безопасность криптовалют, защита данных, осведомленность пользователей.

**Annotatsiya.** Raqamli aloqa platformalarining tez kengayishi moliyaviy o'zaro ta'sirlarni sezilarli darajada o'zgartirdi, ularni yanada qulayroq qildi, ammo kibertahdidlarga tobora zaifroq bo'lib qoldi. Eng tez rivojlanayotgan xabar almashish platformalaridan biri sifatida Telegram moliyaviy operatsiyalar, biznes aloqalari va kriptovalyuta almashinuvlari uchun markazga aylandi. Biroq, bu o'sish fiishing, firibgarlik sxemalari, shaxsni o'g'irlash va ruxsatsiz tranzaksiyalar kabi kiberjinoyatchilik faoliyatini ham o'ziga tortdi. Ushbu maqolada moliyaviy kontekstlarda Telegramdan foydalanish bilan bog'liq asosiy xavflar o'rganiladi va foydalanuvchilarning moliyaviy xavfsizligini ta'minlash uchun keng qamrovli strategiyalar taklif etiladi. Tadqiqotda texnologik, ta'lim va tartibga solish yondashuvlari ta'kidlangan, foydalanuvchilarning xabardorligi va platforma mas'uliyatining roli ta'kidlangan. Topilmalar shuni ko'rsatadiki, xavfsiz amaliyotlar, ilg'or shifrlash va raqamli savodxonlikning kombinatsiyasi moliyaviy xavflarni kamaytirish uchun juda muhimdir.



**Kalit so'zlar.** *Telegram xavfsizligi, moliyaviy xavfsizlik, kiberjinoyatchilik, fuqarolarning hujumlari, raqamli maxfiylik, onlayn firibgarlik, kriptovalyuta xavfsizligi, ma'lumotlarni himoya qilish, foydalanuvchilarning xabardorligi*

In the modern digital economy, messaging applications have evolved beyond simple communication tools into multifunctional platforms supporting financial transactions, e-commerce, and investment activities. Telegram stands out due to its strong encryption features, large user base, and support for bots and channels. However, these advantages also introduce vulnerabilities that can be exploited by malicious actors. Ensuring financial security on Telegram is therefore a critical issue requiring interdisciplinary attention.

**Financial Risks Faced by Telegram Users.** Telegram users encounter a variety of financial threats, including: Phishing scams via fake links and bots, Fraudulent investment schemes (especially cryptocurrency-related), Identity theft and account hijacking, Unauthorized access to personal financial data, Social engineering attacks.

**Table 1. Common Threat Types and Their Impact**

Threat Type	Description	Potential Impact
Phishing	Fake messages or links to steal login credentials	Loss of accounts and financial assets
Fake Investment Schemes	Fraudulent crypto or trading opportunities	Financial loss
Account Hacking	Unauthorized access through weak passwords or leaked data	Theft of funds and personal information
Malware Links	Malicious files or links sent via chats	Device compromise and data theft
Social Engineering	Manipulation of users into sharing sensitive information	Identity theft and fraud

**Methods to Ensure Financial Security. Technical Measures.** Enable two-factor authentication (2FA), Use strong and unique passwords, Regularly update



applications and devices, Avoid clicking unknown links or downloading suspicious files.

User Awareness and Education. Educate users about common scams. Promote digital literacy programs. Encourage verification of sources before transactions.

Platform Responsibilities. Strengthening security protocols. Monitoring suspicious activities. Providing reporting mechanisms for fraud

**Table 2. Preventive Strategies Overview**

Strategy Category	Specific Actions	Expected Outcome
User-Level Protection	Strong passwords, 2FA, cautious behavior	Reduced risk of account compromise
Platform Security	Encryption, AI-based fraud detection	Safer communication environment
Legal Regulation	Cybercrime laws, enforcement mechanisms	Deterrence of criminal activities
Educational Programs	Awareness campaigns, training sessions	Improved user knowledge and vigilance

Role of Cryptocurrency and Financial Bots. Telegram is widely used for cryptocurrency trading and financial bots. While these tools provide convenience, they also introduce risks such as: Lack of regulation. Anonymous transactions. High susceptibility to scams. Users must verify the authenticity of bots and avoid sharing sensitive financial data.

Financial security on Telegram cannot be ensured solely through technology. It requires a holistic approach involving users, developers, and regulatory bodies. Human factors, such as lack of awareness and trust in unknown sources, remain the weakest link in digital security. Therefore, continuous education and proactive security practices are essential.

Ensuring the financial security of Telegram users is a complex but achievable goal. By combining advanced security technologies, responsible platform



management, and informed user behavior, it is possible to significantly reduce financial risks. Future developments should focus on integrating artificial intelligence for threat detection and enhancing global cooperation in combating cybercrime.

## REFERENCE:

1. Daminova B. Formation of the management structure of educational processes in the higher education system //Science and innovation. – 2023. – Т. 2. – №. А6. – С. 317-325.
2. Daminova B. Organizational and economic mechanisms and conceptual directions of tourism development in the region //Green Economy and Development. – 2024. – Т. 3. – №. 7. – С. 666343.
3. Esanovna D. B. THE ROLE OF MODERN INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE DEVELOPMENT OF THE NATIONAL ECONOMY //Лучшие интеллектуальные исследования. – 2025. – Т. 52. – №. 1. – С. 54-60.
4. Daminova B. E. MONITORING METHODS BASED ON MULTILEVEL EDUCATIONAL PROCESSES DATA //Экономика и социум. – 2025. – №. 2-1 (129). – С. 140-142.
5. Daminova R. MODERN REQUIREMENTS FOR ORGANIZING THE PROCESS OF TRAINING AS A MEANS OF DEVELOPMENT AND FORMATION OF PERSONALITY //Science and innovation. – 2023. – Т. 2. – №. В10. – С. 143-145.
6. Daminova B. E. et al. SUN'IY INTELLEKTNING RIVOJLANISH TENDENSIYASI //Экономика и социум. – 2025. – №. 5-1 (132). – С. 221-225.
7. Daminova B. E. et al. SUN'IY INTELLEKTNING KASBLARGA TAHDIDI YOKI YORDAMCHILIGI //Экономика и социум. – 2025. – №. 5-1 (132). – С. 231-234.
8. Nurfahasdi M. et al. Enhanced removal of mercury from leachate using electrocoagulation: Reaction kinetics //Journal of Ecological Engineering. – 2026. – Т. 27. – №. 4. – С. 193-201.



9. Rizayeva B., Daminova B. STATISTIK TAHLILDA DASTURIY VOSITALARDAN FOYDALANISH //MUHANDISLIK VA IQTISODIYOT. – 2026. – T. 4.
10. Daminova B. Organizational and economic mechanisms and conceptual directions of tourism development in the region //Green Economy and Development. – 2024. – T. 3. – №. 7. – С. 666343.
11. Esanovna D. B. ORGANIZATIONAL AND ECONOMIC MECHANISMS AND CONCEPTUAL DIRECTIONS OF TOURISM DEVELOPMENT IN THE REGION //INTERNATIONAL JOURNAL OF SOCIAL SCIENCE & INTERDISCIPLINARY RESEARCH ISSN: 2277-3630 Impact factor: 8.036. – 2025. – T. 14. – №. 11. – С. 91-94.
12. Esanovna D. B. ОРГАНИЗАЦИОННО-ЭКОНОМИЧЕСКИЕ МЕХАНИЗМЫ И КОНЦЕПТУАЛЬНЫЕ НАПРАВЛЕНИЯ РАЗВИТИЯ СФЕРЫ ТУРИЗМА В РЕГИОНЕ //Modern education and development. – 2025. – T. 33. – №. 1. – С. 32-38.
13. Daminova B. E., Boboyorov B. E. QASHQADARYO YOSHLARINI VA ILM-FAN SOHASIDAGI MUTAXASSISLARNI AXBOROT TEXNOLOGIYALARIGA JALB QILISH //Экономика и социум. – 2025. – №. 5-1 (132). – С. 188-191.
14. Daminova B. E. et al. SUN'İY INTELLEKT VA KIBERXAVFSIZLIK //Экономика и социум. – 2025. – №. 5-1 (132). – С. 212-215.
15. Daminova B. E. et al. SUN'İY NEYRON TARMOQLARINING NAZARIY ASOSLARI VA AMALIY ILOVALARIDA ISHLASH USULLARI //Экономика и социум. – 2025. – №. 5-1 (132). – С. 226-230.
16. Daminova B. E. et al. ROBOTOTEXNIKA VA AVTOMATLASHTIRISHNING AHAMIYATI //Экономика и социум. – 2025. – №. 5-1 (132). – С. 208-211.
17. Daminova B. E., Omonov J. M., Norqo'Chqorov Y. Y. NUTQNI TANISH TIZIMINI CHUQUR NEYRON TARMOQLARI YORDAMIDA YARATISH BOSQICHLARI //Экономика и социум. – 2025. – №. 4-2 (131). – С. 221-227.



18. Daminova B. E. et al. ELEKTRON HUKUMAT VA ELEKTRON RAQAMLI IMZONING QO'LLANILISHI //Экономика и социум. – 2025. – №. 4-2 (131). – С. 216-220.
19. Daminova B. E. et al. SUN'IY INTELLEKT SOHASIDA QO'LLANADIGAN ZAMONAVIY PYTHON KUTUBXONALARI //Экономика и социум. – 2025. – №. 4-2 (131). – С. 205-209.
20. Daminova B. E. et al. ARDUINO PLATFORMASIDAN FOYDALANIB SUV SARFINI HISOBLOVCHI DASTURIY VA TEXNIK TA'MINOT ISHLAB CHIQISH //Экономика и социум. – 2025. – №. 4-2 (131). – С. 210-215.