



LEGAL AND INSTITUTIONAL RESPONSES TO CYBER-ENABLED THEFT: NATIONAL AND GLOBAL PERSPECTIVES

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Abstract: *this study examines the legal nature, regulatory mechanisms, and enforcement challenges of cyber-larceny within both national and international legal systems. As digital economies expand and cyber-enabled theft techniques grow increasingly sophisticated, traditional legal frameworks face significant difficulties in defining, classifying, and prosecuting offenses involving unauthorized access, digital asset misappropriation, and technologically mediated financial fraud. Through a combination of doctrinal legal analysis, comparative research, and examination of empirical data, the study identifies substantial discrepancies in the legal treatment of digital assets across jurisdictions as well as persistent obstacles related to digital evidence, attribution, and cross-border cooperation. The findings reveal that states equipped with specialized cybercrime units, advanced forensic capabilities, and harmonized regulatory standards demonstrate markedly stronger resilience against cyber-larceny.*

This study explores the evolving phenomenon of cyber-enabled theft, with particular emphasis on ransomware attacks, within the context of national and international legal systems. The rapid expansion of digital technologies and financial infrastructures has generated new forms of criminal activity that challenge traditional legal definitions, enforcement mechanisms, and jurisdictional boundaries.

Through doctrinal legal analysis, comparative methodology, and empirical assessment, the research identifies critical gaps in the legal regulation of cyber-enabled property crimes, including inconsistencies in the recognition of digital assets, deficiencies in handling electronic evidence, and limitations in cross-border cooperation.

The findings demonstrate that while certain jurisdictions have developed advanced legal and institutional frameworks—such as specialized cybercrime units, digital forensic systems, and harmonized legal standards—others remain vulnerable due to outdated legislation and limited technical capacity. The study concludes that strengthening legal definitions, enhancing international cooperation, and integrating technological innovation into legal systems are essential for effectively combating cyber-enabled theft and ensuring the resilience of digital economies.

Keywords: *cyber-enabled theft; ransomware; digital assets; cybercrime law; transnational criminal law; electronic evidence; cybersecurity governance; international cooperation; digital forensics.*

Introduction: The rapid development of digital technologies and the widespread use of the internet have fundamentally transformed modern society. Alongside these advancements, however, new forms of criminal activity have emerged, among which cyber-enabled theft represents one of the most complex and dangerous threats.

Cyber-enabled theft encompasses unauthorized access to digital systems, misappropriation of digital assets, and technologically mediated financial fraud. Among its most destructive forms is ransomware, a type of cyberattack in which perpetrators encrypt data and demand payment for its release. These attacks not only cause financial losses but also threaten national security, disrupt critical infrastructure, and undermine trust in digital systems. The transnational nature of cybercrime significantly complicates its regulation and enforcement. Offenders often operate across multiple jurisdictions, exploiting differences in legal systems

and enforcement capacities. Therefore, addressing cyber-enabled theft requires not only strong national legislation but also effective international cooperation and harmonized legal standards. This study aims to analyze the legal frameworks governing cyber-enabled theft at both national and international levels, identify key challenges, and propose solutions for improving legal and institutional responses.

The research is based on a comprehensive set of legal, scientific, and empirical sources. National legislation, including criminal law provisions, cybersecurity regulations, and financial control norms, forms the primary basis for analysis. International legal instruments, particularly the Budapest Convention on Cybercrime, as well as standards developed by global organizations such as INTERPOL, Europol, and UNODC, are examined to assess cross-border regulatory mechanisms. In addition, the study incorporates academic literature on cybercrime, digital forensics, and cybersecurity governance. Statistical data from national authorities and international organizations are used to identify trends, patterns, and the scale of cyber-enabled theft. The research employs a combination of legal analysis, comparative methodology, statistical evaluation, and case-based reasoning, allowing for a multidimensional understanding of cyber-enabled theft as a socio-legal phenomenon.

The analysis reveals that cyber-enabled theft, particularly ransomware, has become a significant threat in Uzbekistan and globally. Ransomware attacks function by encrypting data and demanding payment, often in cryptocurrency, thereby combining elements of unauthorized access, extortion, and digital fraud.

Within the national legal framework, such acts are currently prosecuted under multiple provisions, including unauthorized access to computer systems, distribution of malicious software, and extortion. However, the absence of a distinct legal definition of ransomware creates difficulties in legal qualification and judicial practice. The Law “On Cybersecurity” (2022) represents an important step in strengthening national cyber resilience, particularly by introducing obligations for

critical infrastructure entities. Nevertheless, it lacks clear provisions regarding ransom payments and their legal consequences. Empirical data indicate a significant increase in cyberattacks. For example, more than 11 million cyber incidents targeting national web resources were recorded in 2023, highlighting the scale and urgency of the problem. At the international level, cyber-enabled theft is regulated primarily through cooperative frameworks such as the Budapest Convention. While Uzbekistan has not yet acceded to this convention, its principles are partially reflected in national legislation. Comparative analysis shows that countries such as the United States and members of the European Union have adopted more stringent legal frameworks. These include specific provisions addressing ransomware, higher penalties, and mechanisms for restricting ransom payments, particularly when linked to sanctioned entities. In contrast, the absence of similar measures in some jurisdictions creates vulnerabilities, enabling cybercriminals to exploit regulatory gaps and jurisdictional fragmentation.

Cyber-enabled theft represents a rapidly evolving and highly sophisticated form of transnational crime that poses serious risks to economic stability, national security, and digital trust. The study demonstrates that while existing legal frameworks provide a foundation for addressing such crimes, significant gaps remain in terms of legal definitions, enforcement mechanisms, and international cooperation. A comprehensive response requires the integration of legal reform, technological innovation, and institutional capacity-building. Only through coordinated national and international efforts can states effectively mitigate the risks associated with cyber-enabled theft and ensure the security of digital ecosystems.

Conflicts of Interest

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