CIVIL LIABILITY FOR HARM CAUSED BY ARTIFICIAL INTELLIGENCE SYSTEMS TO PERSONS WITH DISABILITIES: ISSUES OF LEGAL CLASSIFICATION AND COMPENSATION

Iroda Tulyasheva Makhamadjon kizi
Master's student specializing in Media Law (Class of 2026), Tashkent State University of Law (Tashkent, Republic of Uzbekistan).
E-mail: irodatulyasheva@gmail.com

Abstract. *The article examines aspects of civil liability for harm caused to persons with disabilities resulting from the operation of artificial intelligence systems. The author analyzes AI through the lens of the legal regime governing sources of heightened danger and explores mechanisms for apportioning liability among the creators, manufacturers, and users of such systems. The study provides a detailed analysis of the challenges involved in establishing causation and classifying legal violations, offering recommendations for improving civil legislation.*

Keywords: *artificial intelligence, persons with disabilities, civil liability, compensation for harm, source of increased danger.*

Introduction

As part of the implementation of the "Uzbekistan – 2030" Strategy, information systems, automation algorithms, and artificial intelligence elements are being actively introduced in Uzbekistan across the healthcare, social protection, and medical-social assessment sectors. With over one million officially registered persons with disabilities, the digitalization of processes—including record-keeping, benefit allocation, rehabilitation, and the distribution of subsidized assistive devices—aims to reduce red tape and improve access to public services.

Nevertheless, the automation of key social processes gives rise to new civil law issues regarding the risk of harm and uncertainty in determining the party liable.

In a global context, the issue of the legal regulation of AI-based assistive technologies has rapidly shifted from the realm of theoretical discussion to that of strict legislative standards. According to WHO and UNICEF data, more than 2.5 billion people worldwide currently require such technologies, and this figure is projected to exceed 3.5 billion by 2050.

Despite the rapid, exponential development of AI in this field, many countries face challenges in automating rehabilitation and social protection systems due to significant legal risks.

Global Artificial Intelligence Regulation Strategies: Ethical and Legal Risks for Persons with Disabilities

The deployment of AI solutions in socially significant sectors, including healthcare and assistive technologies, entails substantial risks, as confirmed by recent studies from the WHO and the OECD. A central issue in this context is the phenomenon of algorithmic bias, which can negatively affect the objectivity of decision-making.

As part of international risk management strategies, the European Union classifies AI systems in the fields of healthcare, assistive technologies, and social welfare as high-risk systems under the EU AI Act. This requires operators to conduct a prior human rights impact assessment and ensures mandatory human oversight.

To facilitate the process of seeking compensation for damages, the draft EU AI Liability Directive envisages simplifying the evidentiary requirements by introducing a presumption of a causal link between an algorithmic malfunction and the harm incurred. In the Republic of Uzbekistan, the development of the regulatory framework for artificial intelligence is progressively shifting from broad conceptual documents to more detailed institutional regulations.

The adoption of the AI Technology Development Strategy through 2030 (Resolution No. PP-358), along with specific ethical standards and dedicated AI legislation, has established a solid foundation for ensuring the security of digital services.

However, unlike leading international practices, national legislation has not yet implemented a clear risk-based classification of AI systems or developed specific regulations addressing the unique nature of algorithmic harm.

In this regard, the in-depth study and implementation of international standards for algorithmic impact assessment constitute a strategically important area for enhancing the civil law protection of persons with disabilities in Uzbekistan.

Legal aspects of liability for damage caused by the operation of algorithms

Legal aspects of liability for damage caused by the operation of algorithms are becoming particularly important amidst the digital transformation of civil law institutions. Determining whom to hold liable for AI system failures is challenging due to the multitude of parties involved in the algorithm's creation and use—ranging from neural network developers and training data providers to operators and end-users.

In international practice, the concept of distributed responsibility addresses this issue by imposing joint and several liability on key participants vis-à-vis injured parties, while leaving internal disputes regarding fault to be resolved through actions for recourse. Globally, there is a shift away from the traditional fault-based model when classifying harm caused by high-risk algorithms. International practice is developing a

strict liability model—akin to that applied to sources of heightened danger—adapted for digital products.

In particular, reformed EU product liability legislation (the EU Product Liability Directive) now officially classifies software and AI systems as products.

This allows design flaws or self-learning failures to be treated as product defects, thereby imposing liability for damages on the manufacturer or supplier regardless of fault. Particular attention is paid to revising the burden of proof; given the "black box" effect and the lack of transparency in algorithmic decision-making, lawmakers are introducing a mechanism of procedural presumptions.

If the plaintiff proves that the operator or developer violated mandatory safety or risk-based control standards—such as the requirements of the EU AI Act—or demonstrates the technical complexity of the system, the court may apply a presumption of a causal link between the algorithmic failure and the damage.

A mechanism for the disclosure of evidence is also being introduced, requiring algorithm owners to provide technical logs and documentation upon a court's request. Non-material harm and damage to sensitive data are also being addressed through an expansion of the category of compensable losses.

International practice recognizes the need for protection against information-related risks—such as algorithmic discrimination, the unauthorized de-anonymization of medical data, and harm to mental health. Thus, global experience demonstrates a shift from the classical principle of fault to algorithmic risk insurance systems, a transfer of the burden of proof to developers, and the recognition of high-risk AI as a digital source of heightened danger.

Conclusion

The integration of artificial intelligence into the fields of medical-social assessment and social protection is a key driver of the "Uzbekistan – 2030" strategy. The use of AI enables the automation of processes, improves the quality of diagnostics, and ensures that state assistance is more targeted, thereby eliminating bureaucratic hurdles for people with disabilities.

However, technological progress requires legal regulation. To foster public trust, it is essential to align national legislation with international standards.

The integration of artificial intelligence into the fields of medical-social assessment and social protection is a key driver of the «Uzbekistan – 2030» strategy. The use of AI enables the automation of processes, improves the quality of diagnostics, and ensures that state assistance is more targeted, thereby eliminating bureaucratic hurdles for people with disabilities.

However, technological progress requires legal regulation. To foster public trust, it is essential to align national legislation with international standards.

Measures for the legal protection of citizens regarding the use of AI in the social sphere:

1. Strengthen liability: Include AI systems in the list of sources of heightened danger, which will simplify the procedure for citizens to obtain compensation for damages.
2. Ease the burden of proof: Introduce a procedural presumption linking an algorithmic failure to harm, provided that non-compliance with state safety standards is proven.
3. Ensure the right to review: Establish a mandatory requirement for human involvement in the making of socially significant decisions (such as the granting of benefits or allowances), thereby precluding full automation that lacks an appeals process.
4. Ensure redress: Introduce liability insurance for AI developers and operators so that affected parties can obtain compensation without lengthy legal proceedings.

List of References

I. Regulatory Legal Acts and Official Documents of the Republic of Uzbekistan

1. Civil Code of the Republic of Uzbekistan (enacted by the Law of the Republic of Uzbekistan No. 256-I dated August 29, 1996) // Bulletin of the Oliy Majlis of the Republic of Uzbekistan. — 1996. — No. 2. — Art. 1. URL: https://lex.uz/docs/180550
2. Law of the Republic of Uzbekistan “On the Rights of Persons with Disabilities” dated October 15, 2020, No. ZRU-641 // National Legislation Database (Lex.uz). — URL: https://lex.uz/docs/5049549
3. Decree of the President of the Republic of Uzbekistan "On the 'Uzbekistan–2030' Strategy" dated September 11, 2023, No. UP-158 // National Legislation Database (Lex.uz). — URL: https://lex.uz/docs/6600404
4. Resolution of the President of the Republic of Uzbekistan No. PP-4996 "On measures to create conditions for the accelerated implementation of artificial intelligence technologies" dated February 17, 2021 // National Legislation Database (Lex.uz). — URL: https://lex.uz/docs/5297051
5. Resolution of the President of the Republic of Uzbekistan No. PP-358 dated October 14, 2024, “On Approval of the Strategy for the Development of Artificial Intelligence Technologies until 2030” // National Legislation Database (Lex.uz). — URL: https://lex.uz/docs/7157812

II. International legal acts and document management of international organizations

6. UN Convention on the Rights of Persons with Disabilities (adopted by UN General Assembly Resolution 61/106 of December 13, 2006; ratified by the Law of the Republic of Uzbekistan No. ZRU-695 of June 7, 2021) URL: https://www.un.org/ru/documents/decl_conv/conventions/disability.shtml
7. World Health Organization and UNICEF. Global report on assistive technology / WHO, UNICEF. — Geneva : World Health Organization, 2022. — 148 p. URL: https://iris.who.int/server/api/core/bitstreams/994896d6-14ad-4886-a4cf-e855b454d975/content
8. Regulation (EU) 2024/1689 (Artificial Intelligence Act - AI Act) of the European Parliament and of the Council of 13 June 2024 laying down harmonized rules on artificial intelligence. URL: https://eur-lex.europa.eu/eli/reg/2024/1689/oj/eng
9. Directive (EU) 2024/2853 of the European Parliament and of the Council of 23 October 2024 on liability for defective products (Product Liability Directive) URL: https://eur-lex.europa.eu/legal-content/bg/ALL/?uri=CELEX:32024L2853
10. Draft Directive of the European Parliament and of the Council on adapting non-contractual civil liability rules to artificial intelligence (AI Liability Directive) URL: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52022PC0496