Robotics as an Artificial Intelligenceand the Need for its International Legal Regulation

Sardor Yusupov
PhD candidate of Tashkent State University of Law, Tashkent, Uzbekistan

ABSTRACT

Throught the previous few decades, the (transborder) flow of information, humans, products, services, and capital has produced a vast quantity of data. As a result of thesechanges, data protection issues have developed, as well as the issueof customers of online goods and services "paying" for items by exposing data without considering the natureor valueof the data. The present European Union (EU) Directiveon digital content regulates even the payment of online services through the providing of data.

KEYWORDS: *Organisation for EconomicCo-functioningand Growth (OECD),"virtual innovation agency",transborder, AI, "black box" testing methods, International Organization for Standardization (ISO), "Framework for Artificial Intelligence Systems Using Machine Learning"), COVID-19, The National Instituteof Standards and Technology (NIST), International Electrotechnical Commission.*

Freetransborderdata flows areessential to realize the benefits of global data interchange.In this context, big dataanalytics has the potential to improve data processing outcomes in a variety of ways.Theautomotive industry, for example, and evaluates ideas submitted through its "virtual innovation agency",and the health sector, which collects dataon larger populations in order toreduce disease, bring quickly and accurately identified drugs to market, and provide better healthcare through therequestof evidence-based interventions.[1]

Furthermore, data subjects are typically unawareof how much information is collected and preserved about them. Big data is a term used to describe datasets that are tooenormous to beacquired, curated, managed, and processed in a reasonable length of time using conventionalcomputing methods. The four properties of big dataanalytics arecommonly used tocharacterize it: volume, diversity, velocity, and veracity (the "4 V")."Volume" denotes a hugeamount of data; "variety" indicates that the data is obtained from a rangeof sources and formats; "velocity" denotes the high speed with which the data is processed; and "veracity" denotes the relianceon the data's accuracy.

Cloud computing is another technological advancement that allows transborder data flows to benefit from cheaper on-demand computer power that can be increased and paid for as needed.[2]Cloud services include softwareas well as access to processing, email, storage, and other computer resources.

[1]Saidakhrorovich G. S. REGULATORY LEGAL FRAMEWORK FOR THE REGULATION OF THE DIGITAL ECONOMY //Национальнаяассоциацияученых. – 2020. – №. 58-1 (58). – С. 33-35.https://cyberleninka.ru/article/n/regulatory-legal-framework-for-the-regulation-of-the-digital-economy

[2]Anna Ubaidullaeva Said GulyamovIntelligenza artificiale e dirittod'autore, 2022/1/28, Gazzetta di Milano, https://www.gazzettadimilano.it/top-news/intelligenza-artificiale-e-diritto-dautore/

Algorithms can automate the "manufacture" of goods and services, as well as simplify information selection and filtering in a number of ways, such as assigning significance tocertain dataand censoring material.The design and modeling of data, as well as the verification and validation of data, and the deployment, functioning, monitoring, and storageof data, areall parts of theAI system connection.

AI enables thecreation of an automated decision-making "regime" that can be implemented in a timely and efficient manner.[3]The following examples areonly the tip of the iceberg in terms of data-driven innovation potential: (1) Due to rapidly increasing AI, self-driving automobiles will becomea reality, and (2) robots will advance to becomea regular industry tool.

DespiteAI's obvious benefits, therearecertain problems that must beaddressed. As a result, a few transdisciplinary topics must be investigated from acivil society normative perspective: I Is it true that artificial intelligence systems follow fundamental constitutional principles? (a) Does theAI request havea sound legal foundation? (b) DoAI techniques fulfill thecriteriaof theapplicable data protection laws? (c) Who is responsible for ensuring that AI is used responsibly in society, and who is held accountable if an algorithm fails?

Even though reliableexplanations that satisfy the interests of global society are difficult tocome by, these problems deserve proper answers. However, if an effective legal framework for digital governance in global interactions, notably in the international trade system, is to becomea reality, a balance between AI's benefits and threats must be kept in mind.[4]

Transborder data flows and digital tradeare transforming the global legal system. Throught the preceding five years, however, experience has shown that many nations were less ready toagreeon new, globally acceptable standards and that transborderdata flows wereconstricted. The proposed data localization rules might be seen as a new form of digital protectionism that goes beyond genuineconcerns like privacy, law enforcement, and cybersecurity. The fragmentation of the Internet is another prominent topic.The trends described hereare pointing us in the wrong path. Instead, work should be done to improve international regulatory co-operation. As a result, the interaction between global demands and national interests should be better understood, leading to more suitablecooperative design.[5]

In the faceof rising nationalism and strengthening sovereignty interests in many largeand minor jurisdictions throughout the world, international regulatory cofunctioning is a difficult posture to take. Co-operation, however, is always preferable toconfrontation from a political and scientific position. This assessment should persuade policymakers to placea higher focus on international organizations' functioningal harmonization.

Theessential characteristics of global law in thecontext of the international commerce system arelucidity, trust, and traceability.Risk assessment and ethical concerns must be included in an ideal design for a balanced policy environment in the global tradeecosystem, thereforeenhancing theconfidenceof all interested stakeholders in the global legal framework.[6]

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[3]Рустамбеков, И. и Гулямов, С. (2022) «Международное частное право в киберпространстве (коллизионное кибер право), *Обзор законодательства Узбекистана*, 1(2), сс. 88–90. доступно на: https://inlibrary.uz/index.php/uzbek_law_review/article/view/1818

[4]Arkhipov, V. V., and V. B. Naumov. "Artificial intelligence and autonomous devices in legal context: on development of the first Russian law on robotics." *SPIIRAS Proceedings* 6.55 (2017): 46-62.

[5]Bahramovna, Bahramova Mohinur. "ONLAYN ARBITRAJDA NIZOLARNI HAL ETISH TARTIBI." *International Journal of Philosophical Studies and Social Sciences* (2022): 104-109.https://scholar.google.com/scholar?oi=bibs&hl=en&cluster=9342402534143575105

[6]Gulyamov S. REFORM OF SCIENTIFIC EDUCATION IN UZBEKISTAN //Збірникнауковихпраць SCIENTIA. –

According to Stanford AI100, the widespread usageof machine learning in software services and mobile devices began in 2000, much before the technological growths that pushed the formation of modern AI. According to Kelly, these breakthroughs include Geoffrey Hinton's growthof "deep learning" based on stacked neural networks in 2006 (which effectively industrialized learning); Andrew Ng and his Stanford team's requestof parallel processing computer chips to neural networks in 2009; and Andrew Ng and his Stanford team's requestof parallel processing computer chips to neural networks in 2010.and theaccumulation of big data, which greatly increased with the mobile revolution that followed the introduction of the iPhone in 2007.[7]

Since the basic issues raised in developing standards for AI werealready encountered in developing quality assurance for "expert systems," which date back to the 1960s,[8] thegrowthof regulatory frameworks and quality assurance systems for AI werealready underway well before these breakthroughs. These systems used a "inferenceengine" to mimica human expert's decision-making process, and they wereeither data-based (encoded knowledge in a highly specialized topic) or deep learning-based (based on broad structural understanding of the subject matter). Conventional validation necessitates meticulous output testing. However, whileAI that draws conclusions from fresh data may beevaluated for repeatability and stability with specific data inputs, final judgments are not attainable.[9]

When AI is constructed using non-deterministic processes based on massive data, and the decision-making process cannot be broken down into sub-programs that can be individually examined, the issue becomes considerably more difficult. Despite the fact that "black box" testing methods have been developed, they are seen as "workarounds" rather than solutions to the quality assurance problem. For example, an AI chatbot trained on Twitter quickly devolved intoa foul-mouthed bigot and had to be pulled down, illustrating the regulatory challenges created by open-ended training data.[10]

Despite theseessentially unbounded concerns, usecases for AI viaexpert systems have proliferated, and a slew of requests havealready passed the relevant regulatory procedures and industry-established quality benchmarks without appearing to face significant barriers to international market access, as noted. How was this accomplished? Next, we'll look at this issue.[11]

The modern eraof powerful AI arose in a regulatory context informed by theexperience gained developing quality assurance for expert systems within the softwareengineering stream, under theauspices of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC). Since 1998, the ISO/IEC 90003 SoftwareEngineering standards havecontrolled expert systems.

2021.https://scholar.google.com/scholar?hl=ru&as_sdt=0,5&cluster=15840274400256470707

[7]Bakhramova, M., 2022. ODR (Online Dispute Resolution) System as a Modern Conflict Resolution: Necessity and Significance. *European Multidisciplinary Journal of Modern Science*, *4*, pp.443-452.https://emjms.academicjournal.io/index.php/emjms/article/view/114

[8]Baranov, Pavel P., et al. "Problems of legal regulation of robotics and artificial intelligence from the psychological perspective." *Propósitos y Representaciones* 8.2 (2020): 511.

[9]Kashkin, S. Yu. "Artificial intelligence and robotics: the possibility of invasion of human rights and legal regulation of these processes in the EU and the world." *Lex Russica* 7 (2019): 151-159.

[10]Bakhramova, M., 2022. THE ORIGINS OF THE ODR SYSTEM AND ITS ADVANTAGES OVER OTHER ADR METHODS. *БАРҚАРОРЛИКВАЕТАКЧИТАДҚИҚОТЛАРОНЛАЙНИЛМИЙЖУРНАЛИ*, *2*(1), pp.527-530. http://sciencebox.uz/index.php/jars/article/view/1045

[11]Dreier, Thomas, and Indra Spiecker genannt Döhmann. "Legal aspects of service robotics." *Poiesis & Praxis* 9.3 (2012): 201-217.

Many AI-specific standards are being created at the national and international levels as technology advances. China's Standardization Administration of China (SAC) has released a White Paper toaid China's international involvement on AI standards for key technologies and interoperability, including algorithmiclucidity, liability, bias, and privacy, as well as other ethical and security challenges.• TheEuropean Commission has published a White Paper on AI, a study on the safety and liability implications of AI, the Internet of Things (IoT), and robots, and ethical recommendations for trustworthy AI through a High-Level Expert Group.[12] Japan has created theAdvanced Integrated Intelligence Platform Project (AIP), which includes acomprehensiveAI program, as well as AI standards. The UN has been working on AI's human rights implications, producing recommendations on ethical challenges highlighted by its investigationand deployment.[13]The ISO/IECCD 23053 ("Framework for Artificial Intelligence Systems Using Machine Learning") and the ISO/AWI TR 23348 ("Statistics – Big DataAnalytics – Model Validation") are international standards under growth that address the deeper challenges posed by ML. These might providea standardized method for evaluating AI softwarecompliance in high-risk requests in regulated sectors.[14]

CONCLUSION

Along with thecomplexchallenges posed by its employment as a weapon for political influenceand social control, AI's move from executing instructions toexercising agency, which creates thorny legal concerns, is still substantially ahead of us, creating relatively open-ended considerations regarding social acceptance. The impact of AI on the labor market – notably white-collar professions and the social structures established around human capital in developed countries – is also largely unknown (although blue-collar work will not beentirely spared either, as AI combined with robots will make the latter more flexibleand morecompetitive with blue-collar workers).

Another issue (as if the foregoing wasn't difficult enough!) is that AI is progressing faster than regulators can keep up with. This has stymied AI deployment in domesticcontexts (for example, several major US firms have declined to supply AI for facial recognition until federal regulations areestablished) and will beeven more problematicworlwide, given the low level of international trust – particularly between Chinaand the United States, the two leading AI/ML centers.[15]While this position looks to be unfriendly for futureco-operation, it should be remembered that professional connections between theChineseand US epidemiological groups wereas pleasant and open as political relations throughout theCOVID-19 crisis.

Investigation has no bounds, and with AI/ML, we'll be dealing with truly cutting-edgeinvestigation. Furthermore, when AI beats individual human competency, human-to-human trust issues may becomeobsolete. Simple demonstrations of AI's potential to develop have paved the road for its implementation. The US ban on the TikTok app, which is owned by China's ByteDance, demonstrates how difficult it can be to untangle these issues. This controversy has spurred debates

[12]Yusupov, Sardor ROBOT TEXNIKASINI TARTIBGA SOLISH MUAMMOLARI: HUQUQIY VA AXLOQIY MUAMMOLARNI HAL QILISH BO‘YICHA BA’ZI KO‘RSATMALAR // ORIENSS. 2022. №3. URL:https://cyberleninka.ru/article/n/robot-texnikasini-tartibga-solish-muammolari-huquqiy-va-axloqiy-muammolarni-hal-qilish-bo-yicha-ba-zi-ko-rsatmalar

[13]Begishev, Ildar, Zarina Khisamova, and Vitaly Vasyukov. "From robotics technology to environmental crimes involving robots." *E3S Web of Conferences*. Vol. 244. EDP Sciences, 2021.

[14]N Muhammad, M Bakhramova The role and importance of odr in modern business society- ACADEMICIA: An International Multidisciplinary …, 2021,https://scholar.google.com/citations?view_op=view_citation&hl=en&user=oTxyzXYAAAAJ&citation_for_view=oTxyzXYAAAAJ:YsMSGLbcyi4C

[15]Юсупов, С., 2022. ЗАМОНАВИЙ ЖАМИЯТДА РОБОТОТЕХНИКА СОҲАСИНИ ФУҚАРОВИЙ-ҲУҚУҚИЙ ТАРТИБГА СОЛИШ МАСАЛАЛАРИ. *БАРҚАРОРЛИК ВА ЕТАКЧИ ТАДҚИҚОТЛАР ОНЛАЙН ИЛМИЙ ЖУРНАЛИ*, pp.99-110.http://www.sciencebox.uz/index.php/jars/article/view/1622

about theapp's social risks, thealleged national security risks posed by the data it collects, and thecompany's value (as much as USD 50 billion).[16]

History has been labeled as oneawful thing after another. The first 10 years of the data-driven economy were historically rich, with the year 2020 delivering a perfect storm of historical occurrences. TheAI/ML/big data technology nexus played acritical role in creating that history, but it has also becomea sourceof rising debate. According to the discussion in this chapter, when new requests develop, the trip of AI to international markets will become more difficul

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