DISCUSSION PAPER

AI Regulation in Türkiye: Bringing International Laws into the Discussion

Şeymanur Yönt

TRT WORLD research centre

DISCUSSION PAPER

AI Regulation in Türkiye:
Bringing International Laws into the Discussion

Şeymanur Yönt

TRT WORLD research centre

WRITTEN BY

Şeymanur Yönt

PUBLISHER

TRT TRAINING AND RESEARCH DEPARTMENT

November 2024

TRT TRAINING AND RESEARCH DEPARTMENT

AHMET ADNAN SAYGUN STREET NO:83 34347

ULUS, BEŞİKTAŞ

İSTANBUL / TÜRKİYE

TRT WORLD LONDON

PORTLAND HOUSE

4 GREAT PORTLAND STREET NO:4

LONDON / UNITED KINGDOM

TRT WORLD WASHINGTON D.C.

1819 L STREET NW SUITE 700 20036

WASHINGTON DC

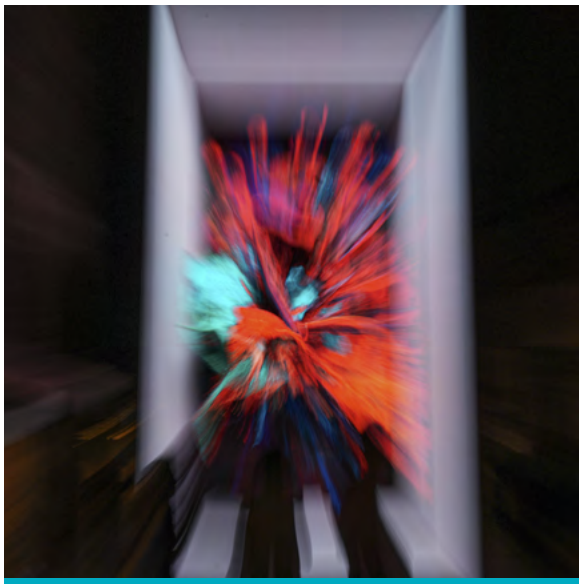
researchcentre.trtworld.com

Integrating International Trade and Intellectual Property Law Frameworks into Turkish AI Regulations

AI's rapid and widespread integration into daily life has created significant regulatory challenges. The overlap between AI and multiple legal fields complicates the development of a cohesive regulatory framework. Even though existing laws, such as consumer laws and intellectual property laws, regulate some aspects of AI, they are often insufficient due to their lack of specificity in addressing the unique challenges of AI technologies, such as cross-border data flows and intellectual property rights for AI-generated content. Such insufficiencies include current intellectual property laws' incapacity in determining the ownership and protection of works in AI systems, leading to legal uncertainties that can hinder innovation and global trade. Another challenge is international trade laws' insufficiency in fully accounting for the complexities introduced by AI-driven products and services, such as unclarity in classifying AI products as goods or services.

Though existing international laws provide a partial framework, they are often insufficient to address the unique challenges posed by AI technologies. For example, international trade laws like the General Agreement on Tariffs and Trade (GATT) and the General Agreement on Trade in Services (GATS) were designed to govern traditional goods and services and do not fully account for the unique nature of AI-driven products, such as autonomous software systems and AI-generated content. Similarly, international intellectual property frameworks, like the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), primarily focus on human-authored works and patented inventions, leaving gaps in protection for AI-generated innovations and the proprietary algorithms that power these technologies. Thus, countries must develop AI-specific legislation that builds upon and strengthens international trade and intellectual property laws to effectively address AI's unique challenges, all while upholding relevant international laws' core values of reducing trade barriers and promoting innovation.

As Türkiye develops AI-specific legislation, it is essential to consider such in shaping effective AI governance. This discussion paper is the second part of a broader series that explores specific areas of international law and their relevance to AI regulation in Türkiye, considering the complexity and wide-reaching implications of AI-related legal challenges. The first paper in this series emphasised the urgent need for Türkiye to develop AI-specific legislation incorporating international human rights principles. Building upon this foundation, the second paper focuses on the critical intersection of AI regulations with international trade and intellectual property laws. This discussion paper provides a roadmap for Türkiye to legislate AI regulations that are globally aligned and tailored to the country's specific needs in the international trade arena. While international trade and intellectual property law frameworks, such as GATT, GATS, and TRIPS, as well as Turkish laws, establish a foundational structure, they fall short of addressing AI's unique challenges. For this reason, Türkiye must not only take into account these foundational principles but also develop more advanced and adaptive legislation that reflects AI's dynamic and evolving nature. This new domestic framework should be designed to both complement and advance international regulations and address local needs, ensuring that Türkiye remains proactive in dealing with the complexities of AI while staying competitive in global trade.



(Erçin Ertürk - Anadolu Agency)

Why are Existing Trade Laws and Intellectual Property Laws Insufficient for Addressing AI-Related Legal Issues?

Existing trade and intellectual property laws, both domestic and international, while providing a foundation for regulating AI-related legal issues, are insufficient for addressing the complex legal challenges posed by AI technologies. International trade laws, including GATT, GATS, and free trade agreement provisions provide a foundational framework for regulating AI technologies. For example, GATT rules promote non-discriminatory trade practices by prohibiting discrimination between goods from different countries and between domestic and foreign goods. This is achieved through principles like the most-favoured-nation[1] and national treatment principle[2], extending to AI-specific goods such as chips and quantum computing hardware. Similarly, GATS regulates AI, especially AI-driven services like cloud computing and data processing, by its provisions that ensure market access and non-discrimination for service providers. Finally, free trade agreements such as CPTPP[3] regulate AI by including provisions on digital trade and cross-border data flows, which impact the development and deployment of AI technologies. For instance, the CPTPP facilitates the transfer of data across member countries, setting forth for each party to "allow the cross-border transfer of information by electronic means" (Comprehensive and Progressive Agreement for Trans-Pacific Partnership [CPTPP], 2018, Article 14.11), enabling smoother international operations for AI-driven services and platforms. Additionally, it includes commitments to non-discriminatory treatment of digital products and services in Article 14.4, stipulating that "no Party shall accord less favourable treatment to digital products created, produced, published, contracted for, commissioned or first made available on commercial terms in the territory of another Party" (CPTPP, 2018, Article 14.4), ensuring that

(Daniel Ceng - Anadolu Agency)

AI technologies can be traded and utilised across borders without unfair restrictions or barriers.

On the other hand, international intellectual property laws such as TRIPS[4] and the Berne Convention[5] regulate the protection of copyright and patent rights of AI-related issues. These rules ensure that patents can be granted for innovative AI algorithms and machine learning models, while copyrights provide protection for the proprietary source code and software used in developing AI technologies. For example, Article 27 of the TRIPS allows patents for inventions in "all fields of technology" so to include AI (Agreement on Trade-Related Aspects of Intellectual Property Rights [TRIPS], 1994, Article 27), whereas the Berne Convention protects "literary and artistic works" as set out in Article 2 (Berne Convention for the Protection of Literary and Artistic Works, 1886/1979, Article 2), which covers software code as an expression of creative work, thereby supporting copyright for AI-related software.

[1] The Most Favoured Nation (MFN) principle requires countries to extend any trade advantages given to one nation equally to all other nations in the agreement.
[2] The National Treatment principle requires a country to treat foreign goods, services, and investors no less favourably than it treats its own, ensuring equal competitive conditions once they enter the market.
[3] The CPTPP (Comprehensive and Progressive Agreement for Trans-Pacific Partnership) is a major trade agreement between 11 Asia-Pacific and American countries, aimed at lowering trade barriers, protecting intellectual property, and supporting digital trade across borders. By reducing tariffs and facilitating data flow, it helps member countries like Japan, Canada, and Australia expand market access and drive economic growth, especially in sectors like agriculture, automotive, and digital services.
[4] The TRIPS (Trade-Related Aspects of Intellectual Property Rights) is an international treaty under the World Trade Organization (WTO) that sets minimum standards for intellectual property protection, including patents, copyrights, and trademarks, across member countries. Türkiye is a party to TRIPS, aligning its IP laws with these international standards to facilitate trade and innovation.
[5] The Berne Convention is an international agreement governing copyright protection for literary and artistic works, ensuring that authors' rights are respected across member nations. Türkiye is also a signatory to the Berne Convention, which allows Turkish creators to receive copyright protection internationally.

However, these agreements were not designed with AI's complexities in mind, especially regarding issues such as intellectual property rights for AI-generated content, regulation of cross-border data flows, and fair competition in AI-driven markets. The TRIPS, for example, provides a basis for patenting AI inventions but lacks clarity on whether AI-generated works qualify for intellectual property protection if they lack direct human authorship. Similarly, while GATS outlines protections for service providers, it does not adequately address the hybrid nature of many AI products, which can blur the line between goods and services. Free trade agreements like the CPTPP facilitate data flows and digital trade but fall short in addressing data sovereignty and privacy issues that arise with cross-border data transfers in AI applications.

To address these shortcomings, more tailored legal frameworks that specifically consider AI's evolving characteristics are needed. In the upcoming sections, this discussion will examine these shortcomings in greater detail, identifying where current trade and IP laws lack specificity in dealing with AI-related issues and highlighting areas where more tailored regulatory approaches may be necessary to balance innovation, trade facilitation, and protection of intellectual property rights.

Enacting AI-Specific Laws: Why Create New Laws for AI Instead of Updating Existing Legal Frameworks?

The case for AI-specific legislation becomes compelling when considering the challenges and limitations of amending existing frameworks. While updating current laws may seem logical, it often proves difficult and inefficient. At the international level, the challenge lies in the need for extensive cooperation and consensus among countries for amending existing laws, a process that is often slow and complex. Existing international laws were not originally designed with AI in mind, so significant modifications may be required, making the amendments difficult to implement. On the other hand, new laws can be designed from the ground up with modern realities in mind, providing clear and consistent guidance that aligns with current technological and ethical standards.

For example, the European Union's General Data Protection Regulation (GDPR) was not crafted with the data-processing nuances of AI in mind, especially regarding handling large non-personal data sets without explicit consent. When AI is used in fields like medical research, fitting its regulation into the GDPR framework often leads to a regulatory mismatch, requiring explicit consent for data processing in contexts where it may stifle innovation. Businesses may face high compliance costs or potential risks of non-compliance, creating a regulatory bottleneck. Recognising these challenges, the EU opted to introduce the AI Act instead of amending GDPR, which helps bridge the gap in regulating AI-specific applications while supporting innovation.

Moreover, current international trade laws may not adequately address issues such as cross-border data flows and the classification of AI as a good or service, leading to regulatory uncertainty. Cross-border data flows present a challenge under current international trade frameworks, such as the GATS, which was not designed with AI technologies in mind. AI straddles the line between a good (in terms of AI-powered products) and service (in terms of data processing or AI-as-a-service models), making it difficult to classify under traditional trade categories. Modifying GATS or similar agreements to account for AI's dual nature would require a fundamental rethinking of how goods and services are defined. This kind of amendment could lead to inconsistencies and conflicts with existing provisions, causing confusion for businesses and regulators alike.

Similarly, existing intellectual property laws struggle to address the complexities of authorship and ownership in AI-generated works, particularly whether an AI system can be recognised as an author. Updating these laws is challenging due to fundamental differences introduced by AI, including issues of originality and attribution, which can create inconsistencies and regulatory uncertainties. Instead of amending current IP laws, a dedicated legal framework for AI is necessary to tackle these unique challenges. This new framework can provide clear and consistent guidelines for authorship and ownership, ensuring stakeholders can confidently navigate this landscape.

These issues are equally relevant domestically. Türkiye, therefore, should proactively enact AI-specific legislation to address the gaps within existing international trade and IP laws, creating a legal framework equipped for AI's unique challenges. This tailored approach will allow Türkiye to establish clear guidelines for AI governance, covering issues such as algorithmic transparency, data sovereignty, and ethical AI use, without being constrained by the slower pace of legal amendments. By doing so, Türkiye can better protect its national interests and promote innovation, positioning itself as a leader in the responsible development and deployment of AI technologies.

How to Enact AI-Specific Regulations that Incorporate International Trade and Intellectual Property Laws and Address Their Shortcomings

To effectively navigate the complexities of AI technologies and due to its rapid development and potential for cross-border impact, it is crucial to enact regulations that specifically address AI while integrating international trade and intellectual property frameworks. This legislation should target key gaps, such as inadequate definitions of AI in existing laws and challenges in cross-border data flows. By prioritising values such as reducing trade barriers, promoting innovation, and ensuring adaptability, the regulations can better support the evolving landscape of AI technologies. Additionally, specific provisions should be included to tackle the identified deficiencies in current international laws, including outdated provisions to regulate AI.

1. Trade Flows and Digital Trade

Existing rules governing trade flows and digital trade have significant implications for AI technologies, influencing aspects such as the cross-border exchange of AI systems and the seamless integration of digital services. These regulations shape how AI technologies are traded internationally and impact the conditions under which they are developed and deployed. For instance, digital trade regulations facilitate the global exchange of AI solutions by ensuring that digital services can move freely across borders, which is essential for the effective functioning and scalability of AI systems that rely on diverse global inputs and markets.

However, these rules need to be improved and incorporated into AI-specific legislation for a more comprehensive approach. First, trade rules like the GATS do not account for the dual nature of AI technologies, which often function as goods and services. For instance, AI-powered platforms or cloud-based AI solutions blur the lines between traditional goods and services, creating challenges in how they are classified for trade purposes. As AI becomes embedded in more products—like self-driving vehicles and AI-powered robotics—it will be increasingly necessary to establish universal guidelines that clarify whether commitments under GATT or GATS apply (Krummenacher, 2023). This classification is crucial because it impacts trade tariffs, market access, and compliance obligations, influencing how businesses navigate international trade. This would ensure consistent AI-integrated goods and services treatment within international trade agreements.

Moreover, the GATS outlines four modes for delivering services: cross-border, consumption abroad, commercial presence, and presence of natural persons. However, these categories are not well-suited for products that incorporate AI. For instance, the four GATS service delivery modes face challenges with AI products like self-driving cars. The commercial presence mode, requiring a company to establish a branch in a foreign market, struggles because the AI service in the car relies on ongoing cloud updates, not just the physical product. The cross-border supply mode is problematic as self-driving cars require continuous data flows across borders, as it's not just a one-time delivery but a constant, evolving service that involves international data flows. Finally, natural person mode does not apply since the AI system, not a human, drives the car, and much of the service is managed remotely, making the human presence irrelevant. These issues highlight the limitations of traditional service modes in addressing AI's complexities.

This ambiguity leads to challenges in determining how the services embedded within these products should be classified and taxed. While standalone services generally aren't subject to tariffs, services integrated into goods can be taxed as part of the total product price. For example, software purchased online and delivered separately is not taxed, but if that software is pre-installed on an imported computer, it adds to the customs value of the computer, potentially making it subject to tariffs (Krummenacher, 2023). This inconsistency creates confusion and can hinder trade in AI-enabled products. That's why there is a need to introduce clear guidelines that distinguish between goods and services in AI contexts, ensuring both consistent tax treatment and regulatory clarity.

Another challenge lies in the lack of standardised regulations for AI-related liability and accountability in global trade. Existing frameworks, such as those under the WTO, do not address who is liable if AI systems fail or cause harm when traded across borders. This regulatory gap creates uncertainty for businesses that are engaging in the international trade of AI systems and services. For example, if an AI-powered medical device developed in one country is sold and deployed in another, and it malfunctions, causing harm, it is unclear under existing trade laws who would be held liable. The lack of standardised liability rules creates ambiguity for businesses and consumers, who may face challenges seeking redress in cross-border disputes. Even though including provisions to commercial contracts between exporters and importers would address some issues related to liability and accountability, they fell short of addressing all aspects. Because contracts are restricted by jurisdiction, customers face significant challenges when seeking redress for liability and accountability issues with AI products imported from other countries. Pursuing a claim would require them to initiate legal proceedings abroad or enforce a legal judgment, either domestic or foreign, against a company located outside their home country, which can be complex and costly.

Moreover, contracts cannot always anticipate the full range of issues that may arise with AI technologies, especially when the technology evolves. International AI legislation should incorporate provisions for clear liability rules, defining accountability for AI malfunctions or failures in cross-border transactions, which would create a more predictable environment for businesses and enhance consumer protection. Such laws should specify which jurisdiction's laws apply if a claim arises and how liability is shared among developers, vendors, and users. Moreover, regulations should clearly define which parties are accountable for specific AI functionalities. For instance,

(Alexander Manzyuk - Anadolu Agency)

developers could be held accountable for AI's design-related faults, whereas sellers or importers might bear responsibility for operational issues arising from deployment or misuse. Requiring AI businesses involved in cross-border trade to hold liability insurance or encouraging AI providers to include standardised dispute resolution clauses in commercial contracts would also help create a more predictable environment.

That said, as much as countries should incorporate such uniform international regulations in their domestic laws, they must also consider local realities and address local AI-related issues. This is important because AI might be designed for different environments and nurtured on data from polities that might behave differently. This highlights a familiar issue in AI development: when an AI system is trained primarily on data from a specific demographic, such as a predominantly white, male population, it may struggle to perform accurately with diverse populations (Chander, 2021, p. 118). For instance, consider an AI designed to identify potential threats in the US that lacks an understanding of the unique social or cultural context of threats in Myanmar, potentially leading to serious misinterpretations with harmful consequences (Chander, 2021, p. 118).

Domestic laws can mandate that AI systems deployed within a country are trained on datasets that are diverse and representative of the local population. Moreover, local laws could require AI systems to undergo regular bias audits to identify and address performance gaps when applied to diverse groups within the country. This process would involve testing AI systems for potential biases or failures across different demographic categories relevant to the local context, such as ethnic or linguistic groups. Finally, local laws could specify liability frameworks that hold AI developers or providers accountable for failures due to

insufficient adaptation to local contexts. This could involve allowing consumers to seek compensation or redress if an AI system performs inadequately because it was not properly tailored to the local population.

In Türkiye, international agreements such as GATT and TRIPS apply to AI-related issues, but beyond these, domestic regulations like the Law on Regulation of Electronic Commerce, and the Patent Law and Trademark Law regulate AI-related matters. The Law on Regulation of Electronic Commerce primarily focuses on online commerce and digital marketing but does not specifically address the regulatory needs for AI technologies, such as using and sharing data in electronic commerce. Accordingly, to create a robust AI legislative framework, Türkiye could lay criteria for determining when an AI system functions as a "good" versus a "service." These criteria might include the system's level of physical embodiment, reliance on real-time data processing, and user interaction and deployment mode. Such a flexible, criteria-based approach would allow AI systems to be classified according to their primary functionality and intended use, ensuring that regulations remain adaptable as AI technologies evolve.

Moreover, Türkiye could establish a comprehensive AI liability framework that clearly defines accountability across stakeholders—developers, distributors, and end-users—based on the context and nature of potential AI failures. For example, manufacturers could bear liability for design flaws, while distributors might be responsible for issues arising from improper deployment, and end-users could assume liability if misuse contributes to the malfunction of AI products. These provisions would ensure that AI-related risks are managed equitably and transparently, fostering trust in AI applications and facilitating smoother trade in AI products and services. Türkiye's AI legislation should also consider local realities and address region-specific AI challenges. Since many AI technologies are developed for particular environments and rely on data from specific demographics, these systems may not directly align with Türkiye's cultural and social contexts. By incorporating local nuances, Türkiye can ensure that AI systems deployed within the country are reliable, inclusive, and better suited to serve the local population effectively.

On a broader scale, Türkiye can promote its AI standards internationally by advocating for their inclusion in Free Trade Agreements and other trade negotiations. Additionally, Türkiye's active participation in global AI governance discussions and international forums could further enhance the visibility of its AI legislation, supporting the growth of its AI sector on the global stage. Through these combined efforts, Türkiye can reinforce its domestic AI framework and influence international regulatory norms, strengthening its competitive position in the global AI market.

2. Cross-Border Data Flows

AI is a transnational technology closely tied to data flows, which are vital for operating and trading AI systems. These data flows are crucial because they allow the constant exchange and processing of large datasets that AI algorithms rely on for training, improving accuracy, and generating real-time insights across borders. Without seamless data flows, the development and effectiveness of AI systems would be significantly hindered. Therefore, effective regulation of data flows is essential for having effective AI laws.

The first paper of the series focused on data flows from the perspective of international human rights laws, while this paper will explore these issues through the lens of international trade and intellectual property laws. GATS generally applies to restrictions on data flows, including restricting or banning cross-border data flows in sectors that members explicitly made GATS commitments (Mitchell & Hepburn, 2014, pp. 195-206). However, GATS is a creation of the pre-Internet era, and therefore, applying GATS to technologies not envisioned when these rules were framed (Wu, 2006, p. 264) is a challenge. This is partly because it can be difficult to separate the goods and services components of regulations when services are an essential part of a product, as is the case with Internet of Things (IoT) devices (Mitchell & Mishra, 2021). Moreover, digital services are hard to categorise into specific sectors, making it challenging under GATS to decide which rules to apply (Tuthill & Roy, 2012).

Recent FTAs, like the USMCA and CPTPP, have introduced specific provisions to address these challenges more effectively. For instance, Article 19.4 of the USMCA mandates non-discriminatory treatment of digital products, moving away from the traditional classification of digital offerings as either goods or services (United States-Mexico-Canada Agreement, 2020, Article 19.14). Moreover, Article 14.11 of the CPTPP regulates data flows by setting forth each party to allow the cross-border transformation of information electronically. The CPTPP also provides exceptions to data flow requirements for public policy objectives but emphasises transparency and consistency and implementing safeguards to prevent arbitrary restrictions more strongly than the GATS. It requires that any public policy-related restriction on data flows must avoid unjustifiable discrimination and be necessary to achieve the intended objective, ensuring a balanced approach between regulation and the facilitation of cross-border data exchanges.

While existing rules offer a foundation for enabling data flows, they fail to secure seamless transfers with minimal barriers. States can still arbitrarily invoke exceptions for "public policy" or "privacy protection," which can lead to interruptions in cross-border data exchanges. To minimise these interruptions, first, clarifying the scope of public policy can be helpful (Mitchell & Mishra, 2021, p. 102). Second, countries could work toward creating standardised frameworks for consumer protection, cybersecurity, and data privacy, commonly cited as grounds for public policy exceptions. In doing so, aligning with international standards would undoubtedly ease the process. However, given differing perspectives on data privacy—such as the US's more flexible approach versus the EU's stricter stance—it would help to find a balanced approach that respects both the need for flexible data usage and privacy protection.

In this context, Türkiye should ensure that its free trade agreements incorporate comprehensive data governance provisions to enhance transparency in the application of exceptions to data flows. While some existing FTAs of Türkiye, such as the one with South Korea, address data-related issues, they often lack strong commitments to unrestricted data flows and the necessary specificity for complex areas like cross-border data transfers, cybersecurity, and personal data protection. For instance, the Agreement on Trade in Services Under the Framework Agreement Establishing a Free Trade Area Between the Republic of Turkey and The Republic of Korea recognises the need for international data protection standards to foster trust in electronic commerce. However, Article 2.7 of this agreement does not include specific transparency requirements or adequate safeguards against arbitrary restrictions on data transfers (Agreement on Trade in Services Under the Framework Agreement Establishing a Free Trade Area Between the Republic of Turkey and The Republic of Korea, 2013, Article 2.7). To strengthen these agreements, Türkiye could consider renegotiations to introduce more robust terms, including enforceable rules on data privacy and clearly defined exceptions to protect the free flow of data. For future FTAs, Türkiye should focus on establishing transparency standards and mechanisms that prevent arbitrary restrictions, thereby creating a more secure and predictable framework for digital trade and data flows.

Secondly, Türkiye should actively engage in international dialogues on data flows to align with global standards and facilitate smoother cross-border data exchanges. In doing so, Türkiye may become more involved in multilateral platforms such as the OECD's Committee on Digital Economy Policy. Domestically, Türkiye must ensure that its data protection regulations, especially with key trade partners like the European Union, the United States, and China, are well-aligned. For instance, Türkiye could work to make its law on protecting personal data more closely aligned with the EU's GDPR, particularly regarding its scope and implementation. By achieving an "adequate level of protection" for personal data, Türkiye can establish itself as a trusted partner for international businesses, ensuring smooth data flows with other jurisdictions without additional safeguards.

Moreover, Türkiye should establish a strategic domestic framework to integrate data governance into its trade policies. This framework must ensure that domestic regulations meet international standards and address specific national needs, such as the expectations of Turkish consumers and businesses regarding data protection. Those include a stronger focus on technological innovation (especially in sectors like AI and IoT) while ensuring national security and considering geopolitical sensitivity. It should incorporate measures that balance local norms with the need for seamless international data flows, thus fostering both domestic and global digital engagement. Türkiye can strengthen its position in the global AI ecosystem by implementing these measures, facilitating innovation and cross-border collaboration. Ultimately, aligning domestic regulations with international standards while also improving the standards will ensure that Türkiye remains competitive in the rapidly evolving digital economy.

3, Intellectual Property Laws

It is important to have intellectual property laws in place that both foster innovation and ensure that the creators of AI technologies are incentivised to continue their research and development efforts. In that regard, Türkiye's existing intellectual property framework, guided by Patent Law No. 6769 and the Law on Intellectual and Artistic Works No. 5846, provides a solid foundation for regulating AI. However, given the unique nature of AI technologies, this framework may require further refinement to address the specific challenges posed by AI. For instance, while current laws protect traditional inventions and creative works, they may not fully account for AI-generated content, the proprietary nature of AI algorithms, or the complexities involved in patenting AI innovations. This indicates that the existing Turkish IP framework might not adequately cover questions such as whether AI-generated works can be copyrighted, how to effectively protect trade secrets within AI algorithms, and how to establish clear guidelines for the patentability of AI-driven inventions.

Therefore, Türkiye should enact AI laws that address the gaps between international laws and domestic laws. This is because, above all, using AI systems to generate content

(John Ricky - Anadolu Agency)

from large datasets of human-created text raises concerns about potential copyright infringement, as the generated works may resemble existing creative works. This raises the potential for original creators to file copyright infringement claims against either the AI system or its developers. However, how such cases would be addressed in court remains uncertain and who would ultimately bear responsibility for the infringement (Godefroy, 2023). To address this, legislators should require that AI developers both demonstrate effective safeguards against IP infringement by their systems and establish clear agreements with third parties, such as artists, image library owners, and database proprietors, to ensure proper permissions are obtained for any data used in generating AI outputs (Godefroy, 2023).

Moreover, current IP laws, both domestic and international, are insufficient to address the authorship and inventorship of AI-generated works. Existing IP laws are human-centric (Moerland, 2024, p. 362) and do not provide clear guidance on ownership or authorship rights for AI-generated outputs. For instance, patent laws stipulate that an inventor must be a "natural person," yet there is uncertainty regarding the extent of human involvement required in an AI-generated invention to meet the criteria for patent ownership. Like copyright protection, AI systems are not acknowledged as authors in any copyright framework (Fang, 2024). Instead, when developers or users of AI make intentional creative decisions during the development or editing of a creative work, they are recognised as legitimate authors (Moerland, 2024, p. 372). Again, what qualifies as a creative choice while making an AI system is ambiguous. Ambiguity in the criteria for human involvement and creativity can deter inventors and creators from pursuing innovative AI-driven projects (Buzu, 2024), as uncertainty regarding patentability and copyright protection may discourage investment in new technologies and creative works. This lack of clarity can lead to increased legal disputes over ownership and authorship, complicating the rights associated with AI-generated inventions and outputs.

To overcome such uncertainties, AI-specific laws should either allow the designation of AI systems as inventors or, preferably, rule this option out entirely and set clear and explicit guidelines on who holds the copyright ownership. This should encompass the developers of the AI systems, who often bear significant responsibility for training the algorithms, curating the data sets, and implementing the AI technology into practical applications. For example, suppose an AI system creates a novel invention or artwork. In that case, ownership should default to the human developers or the entity that owns the AI system, as they are

the ones who initiated and directed the creative process, ensuring accountability and facilitating the protection of intellectual property. However, where an AI system generates inventive output without inventive human intervention, the patent application should be permitted to say so and name the AI system as the inventor, along with a natural person or legal entity who claims ownership of the patent application and a resulting patent (Picht & Thouvenin, 2023).

Moreover, the current legal framework does not adequately clarify who holds ownership rights for AI-generated inventions, particularly in cases where multiple parties contribute to the process. AI-generated content often involves multiple contributors, complicating ownership claims (Pan et al., 2024). Requirements around establishing clear contracts prior to content creation can delineate ownership rights (Fang, 2024), and initial authorisation and subsequent rights transfer, ensuring that all parties' interests are protected (Pan et al., 2024), can solve that problem.

Turkish intellectual property laws, too, provide general frameworks for protecting AI-related inventions and trademarks; however, they do not sufficiently address specific issues such as the ownership of AI products. As a result, these national regulations do not fully encompass the evolving landscape of AI and its implications, highlighting the need for more comprehensive and specialised legislation to effectively address AI-related legal challenges in Türkiye. Accordingly, Türkiye should recognise the need for clear definitions of authorship and inventorship tailored to AI systems' realities while ensuring that ownership rights are clearly delineated between developers, users, and other stakeholders. To account for AI-generated works and inventions, Türkiye should introduce AI-specific laws, particularly in copyright, patenting, and trade secret protection. This may involve explicitly designating the developers or legal entities behind AI systems as the rightful owners of the intellectual property, while also establishing clear guidelines for how ownership is assigned in cases where the AI autonomously generates creative output without substantial human intervention.

Moreover, Türkiye should encourage the creation of contracts and agreements before deploying AI systems, ensuring that all contributors, including third parties such as data providers and content creators, have their rights properly protected and assigned. This will not only foster innovation in AI development but will also provide legal certainty, enabling both domestic and international investors to confidently support AI research and development in Türkiye.

On a broader scale, Türkiye should strengthen its IP protection regime without stifling innovation. This is important because multinational corporations might be reluctant to engage in joint AI R&D projects with institutions in countries with weaker IP enforcement, fearing that their innovations could be copied without proper legal recourse. This results in a bottleneck for global AI innovation, as these trade barriers hinder collaborative efforts between nations or entities. Strong IP laws can encourage multinational corporations to invest in Türkiye, as they seek environments where their innovations are legally safeguarded (Ni, 2024). Moreover, clear IP regulations can reduce uncertainties in technology transfer, promoting partnerships between local institutions and global entities (Tartaro et al., 2023), thus balancing collaboration and competitiveness.

Conclusion

As AI technologies advance, Türkiye must create regulations that address AI's specific challenges, going beyond laws like GATT and TRIPS and national frameworks such as the Law on Electronic Commerce. A flexible, criteria-based approach for classifying AI systems and a robust liability framework defining accountability for developers, distributors, and users is essential. Additionally, AI legislation must consider Türkiye's cultural and societal contexts to ensure alignment with local needs.

On the global stage, Türkiye should advocate for including its AI standards in FTAs and engage in international dialogues on data governance. Strengthening provisions related to data flow, cross-border transfers, cybersecurity, and personal data protection in future agreements will ensure smoother, unrestricted data exchanges. Türkiye must also align its data protection laws with international standards, such as the EU's GDPR, to become a trusted partner in global trade.

Finally, Türkiye must establish clear intellectual property protections for AI-related innovations. By ensuring that ownership rights are defined and strengthened, Türkiye can foster both domestic and international innovation. An enhanced IP regime will encourage foreign investment, reduce barriers to AI R&D collaborations, and position Türkiye as a competitive player in the global AI ecosystem. Immediate action is needed to implement these frameworks, enabling Türkiye to secure its role in the rapidly evolving AI landscape.

References

Agreement on Trade in Services Under the Framework Agreement Establishing a Free Trade Area Between the Republic of Turkey and The Republic of Korea. (2013). https://www.trade.gov.tr/free-trade-agreements/republic-of-korea

Agreement on Trade-Related Aspects of Intellectual Property Rights, Part II, Article 27. (1994). https://www.wto.org/english/docs_e/legal_e/27-trips_01_e.htm

Berne Convention for the Protection of Literary and Artistic Works, as revised in Paris on July 24, 1971, and amended on September 28, 1979, Article 2. (1886/1979). https://wipolex.wipo.int/en/text/283693

Buzu, I. (2024). The Inventorship Paradox within Generative AI. Intllectus, 34-47. doi: 10.56329/1810-7087.24.1.03

Chander, A. (2021). Artificial intelligence and trade. In M. Burri (Ed.), *Big data and global trade law* (pp. 115-127). Cambridge University Press. https://doi.org/10.1017/9781108919234.008

Comprehensive and Progressive Agreement for Trans-Pacific Partnership, Chapter 14: Electronic Commerce, Article 14.4 & 14.11. (2018). https://www.gov.uk/government/publications/cptpp-full-agreement-text

Fang, Z. (2024). Research on the copyright recognition of artificial intelligence generated content. *Highlights in Business, Economics and Management MSIED, 39*, 389.

Godefroy, J. (2023, October 9). How does artificial intelligence affect intellectual property protection? *Silicon UK*. https://www.silicon.co.uk/expert-advice/how-does-artificial-intelligence-affect-intellectual-property-protect

Krummenacher, P. (2023, April 14). *International trade and artificial intelligence: Is trade policy ready for ChatGPT?*International Institute for Sustainable Development. https://www.iisd.org/articles/policy-analysis/international-trade-artificial-intelligence-chatgpt

Mitchell, A. D., & Mishra, N. (2021). WTO law and cross-border data flows: An unfinished agenda. In M. Burri (Ed.), *Big data and global trade law* (pp. 83–112). Cambridge University Press. https://doi.org/10.1017/9781108919234

Mitchell, A., & Hepburn, J. (2017). Don't fence me in: Reforming trade and investment law to better facilitate cross-border data transfer. *Yale Journal of Law and Technology, 19*, 195-206. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2846830

Moerland, A. (2024). Intellectual property law and AI. In E. Lim & P. Morgan (Eds.), *The Cambridge Handbook of Private Law and Artificial Intelligence* (p. 362). Cambridge University Press. https://www.cambridge.org/core/books/cambridge-handbook-of-private-law-and-artificial-intelligence/2F7E2F3E1173E51AF4B9A8883B0F8FBF

Ni, J. (2024). Intellectual Property Protection Dilemmas and Legal Response Strategies Under the Perspective of Generative Artificial Intelligence. Journal of education, humanities and social sciences, 28:854-859. doi: 10.54097/8q8mfm80

Pan, Z., Wang, S., & Zhang, C. (2024). The research on the ownership of copyright of AI-generated content. *Highlights in Business, Economics and Management MSIED, 39*, 389.

Picht, P. G., & Thouvenin, F. (2023). AI and IP: Theory to policy and back again – Policy and research recommendations at the intersection of artificial intelligence and intellectual property. *IIC: International Review of Intellectual Property and Competition Law, 54*(6), 916–940. https://doi.org/10.1007/s40319-023-01344-5

Tartaro, A., Smith, A. L., & Shaw, P. (2023). Assessing the impact of regulations and standards on innovation in the field of AI. *arXiv*. https://doi.org/10.48550/arXiv.2302.04110

Tuthill, L., & Roy, M. (2012). GATS classification issues for information and communication technology services. In M. Burri & T. Cottier (Eds.), *Trade governance in the digital age: World trade forum*(pp. 157–178). Cambridge University Press

United States-Mexico-Canada Agreement. (2020). Article 19.14. https://ustr.gov/trade-agreements/free-trade-agreements/united-states-mexico-canada-agreement/agreement-between

Wu, T. (2006). The world trade law of censorship and internet filtering. *Chicago Journal of International Law, 7*(1), 263–287.https://chicagounbound.uchicago.edu/cjil/vol7/iss1/12/

TRT WORLD
research centre

TRTWORLD

research centre