

Committee: World Intellectual Property Organization (WIPO)

Agenda Item: Protecting the rights to intellectual property in the age of digital transformation and AI (Artificial Intelligence)

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Introduction

In a world of evolving-technologies, ever-changing dynamics and inevitable state of turmoil, the protection for one's inventions is absolutely crucial. The intellectual property rights, having been tailored for this exact purpose, are becoming more frequently utilized by the passing second. Intellectual property rights are the rights governing the ownership of the products of the human intellect which usually grant a person or entity the right of ownership of a specific product, innovation, brand, any tangible or intangible item for a predetermined period of time. The concern of intellectual property rights are twofold: copyright and rights related to copyright, and industrial property. Copyright and rights related to copyright include the protection of the rights of the authors/creators/inventors of various works, entailing them to protection for at least 50 years after the demise of the author/creator/inventor. Copyright and related rights, often called "neighbouring rights", also safeguard the interests of performers (such as actors, singers and musicians), broadcasters and producers of sound recordings. The primary societal goal of these protections is to promote and recognize creative efforts. On the other hand, industrial property includes the protection of distinctive signs, such as trademarks, geographical indications. The preservation of the aforementioned distinctive signs seeks to encourage equitable competition and safeguard consumers by allowing them to make educated choices amongst different options. Industrial property can also be protected to encourage innovation and competition, design and technological development, which includes inventions secured through patents, trade secrets and industrial designs.

An effective intellectual property system should also support the transfer of technology through licensing, foreign direct investment and joint ventures. Although the main social goals of IP protection are as previously mentioned, it is important to recognize that the exclusive rights granted are usually entitled to several limitations and exceptions, designed to adjust the balance between the reasonable interests of stakeholders and users.

IP tools were created to preserve the integrity and authenticity of so many people; however, the newly emerging artificial intelligence (AI) technologies have severely threatened IP tools' applicability and rendered them inadequate. As Harvard Business Review states, "Generative AI can seem like magic. Image generators such as Stable Diffusion, Midjourney, or DALL·E 2 can produce remarkable visuals. (...) The resulting products can be fascinating — both quality and speed of creation are elevated compared to average human performance. The capabilities of text generators are perhaps even more striking, as they write essays, poems, and summaries, and are proving adept mimics of style and form (though they can take creative license with facts). [However,] Generative AI platforms are trained on data lakes and question snippets — billions of parameters that are constructed by software processing huge archives of images and text. The AI platforms recover patterns and relationships, which they then use to create rules, and then make judgments and predictions, when responding to a prompt. This process comes with legal risks, including intellectual property infringement."¹ Therefore, the age of digital transformation the world is currently in and the development of irregulated uses of technology continue to raise questions. Not only do they fall under intellectual property infringement as previously mentioned, but they also beg the question, do IP laws (such as copyright, trademark and patent) also cover products of AI tools?

¹ Harvard Business Review - Generative AI Has an Intellectual Property Problem

Aligned with the theme of IRMAKMUN '24, “Stability and Youth Empowerment”, the issue requires immediate attention to achieve integrated stability, the joining of forces in the face of unpredictable and rapidly-developing technologies such as AI. This report will expand on the implications of both AI and the age of digital transformation on intellectual property, suggesting various solutions to regulate these spillover impacts.

Definition of Key Terms

Intellectual property: Intellectual property refers to the rights granted to inventors, allowing them control over the use of their creations for a specified period. It safeguards authentic works, including literary or artistic pieces, brand names, inventions and designs. The protection of IP laws prevent unauthorized use or exploitation of the creation without the creator’s permission.

Patents: “A patent is an exclusive right granted for an invention. (...) A patent provides the patent owner with the right to decide how - or whether - the invention can be used by others. In exchange for this right, the patent owner makes technical information about the invention publicly available in the published patent document.”² Patents are one of the most frequent types of IP.

Copyrights: “Copyright is a legal term used to describe the rights that creators have over their literary and artistic works. Works covered by copyright range from books, music, paintings, sculpture and films, to computer programs, databases, advertisements, maps and technical drawings.”³ Copyrights are types of IP that can cover tangible or intangible products of the human intellect; therefore, they are applicable to various different fields of production.

² World Intellectual Property Organization - What is Intellectual Property?

³ World Intellectual Property Organization - What is Intellectual Property?

Trademarks: “A trademark is a sign capable of distinguishing the goods or services of one enterprise from those of other enterprises. Trademarks date back to ancient times when artisans used to put their signature or ‘mark’ on their products.” A trademark could be in the form of a word, symbol, phrase, design or any other indicator that renders a product, service or innovation different from others and is also a ubiquitous IP practice.

Industrial designs: “An industrial design constitutes the ornamental or aesthetic aspect of an article. A design may consist of three-dimensional features, such as the shape or surface of an article, or of two-dimensional features, such as patterns, lines or color.”⁴ Industrial designs are yet another type of IP.

Geographical indications: “Geographical indications and appellations of origin are signs used on goods that have a specific geographical origin and possess qualities, a reputation or characteristics that are essentially attributable to that place of origin. Most commonly, a geographical indication includes the name of the place of origin of the goods.”⁵

Trade secrets: “Trade secrets are IP rights on confidential information which may be sold or licensed. The unauthorized acquisition, use or disclosure of such secret information in a manner contrary to honest commercial practices by others is regarded as an unfair practice and a violation of the trade secret protection.”⁶

Franchises: “A franchise is a license that the individual, company, and franchisee purchase to use another company’s trademarks and processes.”⁷ Franchises are tied to intellectual property as they rely on licensing trademarks, copyrights, patents, and trade secrets from the franchisor, which allow franchises to operate under the franchisor's established name while benefiting from legal protections and proprietary business methods.

⁴ World Intellectual Property Organization - What is Intellectual Property?

⁵ World Intellectual Property Organization - What is Intellectual Property?

⁶ World Intellectual Property Organization - What is Intellectual Property?

⁷ PitchLabs - What is Intellectual Property?

Major Actors Involved

World Intellectual Property Organization (WIPO)

The World Intellectual Property Organization, or shortly the WIPO, is an international organization that works toward the promotion of the securing of intellectual property rights. The WIPO serves as an international platform for IP services, with a current number of 192. As a self-funded subsidiary of the United Nations, WIPO strives to stimulate creative activity and therefore is highly relevant to the issue. Its functions include “assist[ing] the development of campaigns that improve IP Protection all over the globe and keep the national legislations in harmony, signing international agreements related to Intellectual Property Rights (IPR) protection, implement[ing] administrative functions discussed by the Berne and Paris Unions, render[ing] legal and technical assistance in the field of IP, conduct[ing] research and publish[ing] its results as well as to collect and circulate information, ensur[ing] the work of services that facilitate the International Intellectual Property Protection”⁸. Currently, WIPO is taking several steps to elucidate the place of AI on IP rights. As stated in its website, “WIPO is leading a Conversation on IP and AI, bringing together Member States and other stakeholders to discuss the impact of AI on IP. WIPO is currently prioritizing some of the issues and developing preliminary considerations to questions raised for IP policy by AI in respect of these prioritized issues. WIPO will publish these preliminary considerations in due course for consideration of its Member States and other stakeholders.”

United States of America

The United States of America is also a highly relevant stakeholder, as it has a robust IP system, managed and governed primarily by the United States Patent and Trademark Office (USPTO). The United States has also remained rather active in shaping IP policies and updating pre-existing IP laws in the face of newly-emerging and developing technologies, including digital and AI

⁸ BYJU’s - World Intellectual Property Organization (WIPO)

innovations, thereby holding a significant position in international IP discussions.

According to the data of the WIPO published in August 2024, the US ranks second in terms of having the highest number of applicants which filed patent applications. From the US, exactly 518 364 applications were made, demonstrating a 2.5% increase in comparison to 2022. The US also ranks second in terms of having the highest number of users of the Patent Cooperation Treaty System, with 55 582 users. The PCT applications from the United States of America were mostly regarding computer technology, with medical technology second and digital communication third.

China

As one of the powerhouses of the global GDP and a leading country in technology and innovation, China has a highly developed IP system and national institutions that oversee IP-related transactions. The China National Intellectual Property Administration (CNIPA) is one of those national institutions that oversee patents, trademarks, copyrights and various other IP transactions. In addition, China is a country that was relatively successful in protecting IP against the impending threats of AI and digital technologies, especially in fields like telecommunications and AI research.

Furthermore, China is a leading country in several IP-related statistics. According to the data of the WIPO published in August 2024, China is the country from which the highest number of filings to patent applications took place. With 1 642 507 applications, China is a clear leader with more than triple the number US, trailing as second, has recorded. In addition, the number of applications underwent a 3.6% in comparison to 2022 in China. China also ranks first in terms of having the highest number of users of the Patent Cooperation Treaty (PCT) System, and with 69 601 users, China exceeds the US, who is again trailing as second, by a difference of more than 14 000 users. The PCT applications from China were mostly regarding digital communication, with computer technology second and electrical machinery, apparatus and energy third.

Japan

Japan is also a highly relevant stakeholder with an established IP system, managed by the Japan Patent Office (JPO), and the country has been an influential force in shaping global IP policies as one of the world's leading economies and as a country that ranks fourth in terms of having the highest research and development spending as a percentage of GDP. Japan is particularly active in IP protection related to technology, digital innovation and AI, shaping IP policies and updating pre-existing IP laws in the face of newly-emerging and developing technologies.

In addition, Japan is also a leading country in several IP-related statistics. According to the data of the WIPO published in August 2024, Japan ranks third in terms of having the highest number of applicants which filed patent applications. From Japan, exactly 414 413 applications were made, demonstrating a 2.2% increase in comparison to 2022. Japan also ranks third in terms of having the highest number of users of the Patent Cooperation Treaty System, with 48 982 users. The PCT applications from Japan were mostly regarding electrical machinery, apparatus and energy, with computer technology second and digital communication third.

General Overview of the Issue

Intellectual Property

Intellectual property (IP) includes intangible creations of people, such as inventions, designs, literary and artistic works, symbols, images and names, frequently utilized in commerce. IP is safeguarded by laws such as patents, trademarks and copyrights, allowing individuals to gain recognition or benefit financially for their inventions and creations.

The IP system seeks to promote a medium that nurtures creativity and innovation by balancing the interests and rights of creators/innovators and the broader public. There are various types of intellectual property, but the most common ones include patents, copyrights, trademarks, industrial designs, geographical indications and trade secrets. People in favor of IP laws generally highlight the primary goal of IP laws as fostering the production of a diverse array of intellectual works. Typically for a short amount of time, the IP laws grant individuals and businesses ownership over specific data and intellectual goods they produce.



Artificial intelligence (AI) is playing an increasingly significant role in technological and business advancements, affecting nearly every aspect of creation across various industries. The growth of AI is fueled by the availability of vast amounts of training data and improvements in affordable high-performance computing, and AI intersects with intellectual property (IP) in several ways. “Recent lawsuits, such as those initiated by Getty Images and a group of artists against AI art generators, have highlighted the IP issues associated with AI. Getty Images has accused Stability AI of copying over 12 million images from its database without permission or compensation, including distorted versions of the Getty watermark, potentially leading to trademark infringement claims. However, the open questions regarding IP in the context of AI extend beyond protected data and images used in training, but also to the creative outputs generated by AI platforms. Questions such as copyright, patent, and trademark infringement in relation to AI creations, as well as ownership of AI-generated content, need to be addressed as individuals and businesses continue to embrace the benefits of generative AI. The key issue

with copyright is that it requires originality, which is often attributed to human authors. Without human involvement in the creative process of AI-generated works, copyright protection may not be possible.”⁹

Timeline of Important Events

Date:	Event:
12 October 1984	The U.S. Congress passes the Computer Fraud and Abuse Act (CFAA), addressing unauthorized access to computer systems and setting a precedent for digital IP security.
1 January 1995	The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) comes into effect under the World Trade Organization, which establishes international intellectual property standards.
20 December 1996	The WIPO Copyright Treaty is adopted in Geneva, addressing digital copyright protection, including online content and computer programs.
28 October 1998	The Digital Millennium Copyright Act (DMCA) is signed into law in the U.S., criminalizing circumvention of digital copyright protections.
22 May 2001	The European Union adopts the Information Society Directive (Directive 2001/29/EC), extending copyright protection to the digital environment.
13 November 2004	OpenAI technologies and machine learning frameworks begin emerging as computational power increases. With the increasing popularity of AI and its integration across various systems, some concerns start to arise

⁹ Portulans Institute - The future of intellectual property in the era of AI

	about AI's role in content creation and copyright.
22 March 2009	Google Books Settlement is rejected by a US District Court, which intensifies debates about the digitization of books and fair use.
16 February 2011	IBM's Watson defeats human champions on Jeopardy! This AI milestone raises questions about the intellectual property of AI-driven systems.
21 June 2013	WIPO Conference on Emerging Technologies is hosted by the WIPO in Geneva, focusing on how AI could transform IP protection.
20 December 2013	There are updates to the WIPO Copyright Treaty which include provisions for digital copyright protection.
28 February 2014	The European Parliament launches debates on the legal implications of autonomous systems and AI-generated works for copyright law.
21 March 2016	An AI-generated novel enters Japan's Nikkei Hoshi Literary Prize competition and passes the initial screening, leading the public to scrutinize authorship and copyright under the increasing influence of AI.
12 August 2016	A US District Court rules in favor of Google in the case of Google v. Oracle, finding that its use of Java APIs was fair use. This case was appealed multiple times, with a landmark Supreme Court ruling in Google's favor on April 5, 2021
26 March 2019	The European Union adopts the Directive on Copyright in the Digital Single Market, including Article 17.
14 February 2020	The US Copyright Office denies a

	copyright application for an AI-generated image titled "A Recent Entrance to Paradise," citing a lack of human authorship.
28 July 2021	South Africa becomes the first country to grant a patent listing an AI (DABUS) as the inventor.
21 April 2022	The European Commission proposes the Artificial Intelligence Act.
30 November 2022	ChatGPT is publicly released.
15 December 2023	Generative AI tools like ChatGPT and DALL-E face heightened scrutiny.
1 June 2024	The WIPO issues updated guidelines for AI and machine learning-related IP.

Related Documents

[The WIPO Copyright Treaty \(WCT\) - 20 December 1996](#)

The WCT is an exclusive treaty under the Berne Convention that focuses on safeguarding works and the rights of their creators within the digital landscape. It grants rights such as the right of rental, the right of distribution, the right of communication to the public to authors.

[The WIPO Performances and Phonograms Treaty \(WPPT\) - 20 December 1996](#)

The WPPT is a treaty that complements the WCT by protecting the rights of performers and producers of phonograms against the newly-emerging technologies and the digital era. "The WIPO Performances and Phonograms Treaty (WPPT) deals with the rights of two kinds of beneficiaries, particularly in the digital environment: (i) performers (actors, singers, musicians, etc.); and (ii)

producers of phonograms (persons or legal entities that take the initiative and have the responsibility for the fixation of sounds).¹⁰

[Agreement on Trade-Related Aspects of Intellectual Property Rights \(TRIPS\) - 1 January 1995](#)

The TRIPS agreement is a global legal framework that sets baseline standards for how national governments, all Member States of the World Trade Organization (WTO), should regulate various types of IP rights. The TRIPS still remains the most extensive and inclusive international treaty on IP until now, and it brought IP law into the multilateral trading system.

[UN Resolution A/RES/73/17: Impact of rapid technological change on the achievement of the Sustainable Development Goals and targets - 26 November 2018](#)

A/RES/73/17 is a UN General Assembly resolution that acknowledges the transformative potential of rapid technological advancements, such as artificial intelligence and digital innovations, in supporting the achievement of the Sustainable Development Goals (SDGs). It emphasizes the opportunities these technologies provide, such as bridging the digital divide, enhancing global interconnectedness, and advancing gender equality while also recognizing the challenges posed by rapid technological change, including the need for careful policy-making, capacity-building, and international cooperation to maximize benefits while addressing risks.

[The UNESCO Recommendation on the Ethics of Artificial Intelligence - 24 November 2021](#)

The recommendation focuses on the ethical aspects of AI and its implications for IP, emphasizing fairness and equitable access to AI-generated innovations. It recognizes the detrimental and beneficial effects AI tools have had on societies and therefore is aimed at devising a framework by which the ethical conundrums surrounding the use of AI can be settled.

¹⁰ The WIPO - WIPO Performances and Phonograms Treaty

Other Related Documents:

- [Directive 2019/790 of the European Parliament and of the Council - 17 April 2019](#)
- [WIPO Technology Trends Report Artificial Intelligence - 2019](#)
- [UNCTAD Digital Economy Report - 2021](#)

Past Solution Attempts

The WIPO Copyright Treaty (WCT) of 1996

As mentioned previously, the WCT was a treaty that introduced legal protections for authors' rights in the digital age and emphasized the need to safeguard works like software and databases. The reason why this solution attempt failed was because the enforcement of WCT remained rather inconsistent across jurisdictions and the treaty soon became obsolete as it was unprepared to the rapid evolution of technology and AI tools, making it vulnerable to loopholes that were not anticipated in the treaty's initial drafting. The key takeaway from this solution attempt would be to ensure that legal frameworks are adaptive and are periodically reviewed to remain relevant in the face of technological advancements.

The TRIPS Agreement of 1995

The TRIPS Agreement of 1995 was an agreement aimed at establishing a baseline for IP protection standards worldwide, including provisions for technological innovations. The reason why this solution attempt failed, however, was because LEDCs struggled to meet compliance due to capacity limitations, and the agreement failed to address emerging challenges such as AI-generated works. Therefore, the key takeaway from this solution attempt would be to support mechanisms that are essential for capacity-building in under-resourced countries to ensure equitable global IP enforcement.

The EU Copyright Directive of 2019

The EU Copyright Directive of 2019 was aimed at tackling copyright challenges in the digital market, including requiring platforms like YouTube to take responsibility for copyrighted content. However, it rose controversy since some people argued that provisions like Article 17¹¹ overburden smaller platforms and stifle creativity. Therefore, the key takeaway from this solution attempt would be to avoid overly rigid enforcement mechanisms which can inadvertently hinder innovation and the freedom of expression.

Possible Solutions

Considering that AI tools have become so common, brands are at the risk of having their intellectual property targeted for IP infringement. Therefore, in order to tackle the issue of protecting the rights to intellectual property in the age of digital transformation and AI, robust IP protection measures with comprehensive strategies should be implemented. In these comprehensive strategies, IP examinations and compliance audits play a significant role. To elaborate, “conducting regular audits of the materials and methodologies employed in AI development can preemptively identify potential IP infringements. Compliance checks relative to current IP laws and regulations are essential to keep [companies’] use of data and algorithms legally sound.”¹² “Potential infringement of third party rights need to also be examined and risks quantified using professional assistance. This will also allow them to understand better the scope of their own and third-party rights.”¹³ In addition, “when external datasets or algorithms are utilized, securing appropriate licensing agreements is paramount. These [licensing] agreements must clearly define the scope of use, ensuring AI companies possess the necessary rights to integrate

¹¹ Article 17 of the EU Copyright Directive: In view of the nature and scope of the exception, which is limited to entities carrying out scientific research, any potential harm created to rightholders through this exception would be minimal. Member States should, therefore, not provide for compensation for rightholders as regards uses under the text and data mining exceptions introduced by this Directive.

¹² TrustPath - Protecting intellectual property in the age of artificial intelligence

¹³ Rouse - How does artificial intelligence affect intellectual property protection?

these elements into their technologies without violating others' IP rights.”¹⁴ “Clear evidence of copyright protection should [also] be in place, so that if AI-generated content threatens the brands ownership the brand owner is able to give sufficient evidence to win a dispute. This needs to be rolled out in all the countries where a brand has a footprint. Blockchain-based solutions can assist in securing immutable evidence where recordal systems are unavailable or cost prohibitive.”¹⁵ Next, “AI solutions are notoriously difficult to patent, and IP professionals and the courts are in ongoing conversations about what is and is not patentable. [Therefore,] companies will need to consult with an IP specialist to work out which parts of their innovation to patent to give them the best protection against infringement. A professional can also provide guidance as to the ‘how’.”¹⁶ Also, “in instances where AI developments enhance existing IP or generate new IP, companies should explore ways to give back to the community. This could take the form of releasing datasets, publishing research findings, or making algorithms accessible under open-source licenses. Such contributions foster a culture of collaboration and innovation, while still protecting proprietary advancements.”¹⁷ Finally, “companies should develop clear IP policies that outline their expectations for the use and protection of their IP assets. This can help to ensure that employees, partners, and third parties are aware of their responsibilities and obligations regarding IP protection.”¹⁸

Useful Links

- <https://www.wipo.int/portal/en/index.html>
- <https://www.uspto.gov/>
- <https://www.euipo.europa.eu/en>
- <https://www.eff.org/>
- <https://cyber.harvard.edu/>
- <https://fairuse.stanford.edu/>

¹⁴ TrustPath - Protecting intellectual property in the age of artificial intelligence

¹⁵ Rouse - How does artificial intelligence affect intellectual property protection?

¹⁶ Rouse - How does artificial intelligence affect intellectual property protection?

¹⁷ TrustPath - Protecting intellectual property in the age of artificial intelligence

¹⁸ Rouse - How does artificial intelligence affect intellectual property protection?

- <https://www.aippi.org/>
- <https://www.weforum.org/>
- <https://creativecommons.org/>
- <https://www.consilium.europa.eu/en/policies/digital-single-market/>
- <https://www.gov.uk/government/organisations/intellectual-property-office>
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N](https://www.pitchlabs.org/library/legal/protections/what-is-intellectual-property?campaignid=19950232516&adgroupid=149300526873&creative=655312097035&matchtype=&device=c&keyword=&gad_source=1&gclid=CjwKCAiA9bq6BhAKEiwAH6bqoEnre05enZlYjZjoPb0TjTmcjhQ2Q6ydWN). Accessed 8 December 2024.

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