LAGOS MODEL UNITED NATIONS 2025

BACKGROUND GUIDE

World Intellectual Property Organization

(WIPO)

Property of the Lagos Model United Nations

Background Guide: World Intellectual Property Organization (WIPO)

Edited and Reviewed by
Okegbemi Mofiloluwalowo Oluwatunmise (Deputy-Secretary-General)
Onyinye Madubugwu (Under-Secretary-General Research)
Anita Madu (Under-Secretary-General, Development)
Oluwatimilehin Oluwasemilore (Under-Secretary-General, Peace and Security)

Written by
Oluwaseyi Emmanuel Faronbi (Chair)
Mark Ijuoh-David (Vice-Chair)
Ayomide Odubonojo-Kinoshi (Researcher)
Boluwatife Adaja (Researcher)
Tolúwanimí Idowu (Departmental Researcher)

Designed by
Agam Joy Ngozi

LMUN 2025: The Ninth Session

LAGOS MODEL UNITED NATIONS

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Abbreviations

ADR Alternative Dispute Resolution

ARIPO African Regional Intellectual Property Organization

DRM Digital Rights Management

GII Global Innovation Index

GIPC The Global Innovation Policy Center

GRATK Genetic Resources and Associated Traditional Knowledge

IP Intellectual Property

KEI Knowledge Ecology International

MPP Medicines Patent Pool

MVT Marrakesh VIP Treaty

OAPI African Intellectual Property Organization (Organization Africaine de la Propriété Intellectuelle)

PCT Patent Cooperation Treaty

TISCs Technology and Innovation Support Centres

TRIPS	Trade-Related Aspects of Intellectual Property Rights
UDRP	Uniform Domain Name Dispute Resolution Policy
WIPO	World Intellectual Property Organization
WPPT	WIPO Performances and Phonograms Treaty

Letter From the USG

Dear Delegates,

It is with great joy that I welcome you to the 9th session of the **Lagos Model United Nations 2025**. For nearly a decade, LMUN has served as a catalyst for intellectual growth, diplomatic skill-building and cross-cultural understanding amongst Nigeria's brightest young minds. I tell you this sincerely as I have been fortunate enough to experience this firsthand in the last four years.

This year, I am particularly excited to welcome you to the World Intellectual Property Organization (WIPO) committee, where you will navigate the complex intersection of innovation, creativity and global governance. Bear in mind that you are the first set of delegates to simulate the WIPO committee in the history of LMUN.

Throughout the conference, you will step into the shoes of diplomats, analysing critical intellectual property challenges from your assigned country's perspective. You will engage in substantive debate, forge strategic alliances and craft solutions to pressing global issues. The skills you develop, like critical thinking, negotiation, public speaking and research, will serve you well beyond this conference, regardless of your chosen career path.

The team carefully assembled to guide your WIPO experience comprises: **Oluwaseyi Emmanuel Faronbi** (Chair); **Mark Ijuoh-David** (Vice-Chair); **Ayomide Odubonojo-Kinoshi** (Researcher I); **Boluwatife Adaja** (Researcher II); **Tolúwanimí Idowu** (Departmental Researcher).

Oluwaseyi is a 400-level Law student at the University of Lagos with an impressive Model UN background. His MUN journey began in 2020 at YISMUN, where he won the Distinguished Delegate Award. He went on to represent Germany in the FAO at WOCMUN, earning Best Position Paper, and later represented Russia in the GA Second Committee at LMUN 2020, receiving multiple Peer-to-Peer Awards. In 2021, he served on the LMUN Conference Services Team where his outstanding contribution earned him Best Staff Award. He has keen interest in intellectual property law and is passionate about leadership, social impact and inspiring others to reach their full potential.

Mark is a 400-level law student at the University of Lagos. In 2024, he participated in the LMUN Conference as the Delegate of Chile for the UNHCR committee. His interests lie in intellectual property rights protection and sensitisation, as well as music. He is also a strong advocate for children's rights, believing in the importance of safeguarding the voices and futures of the next generation.

Ayomide is a 300-level law student at the University of Lagos. In 2023 she participated in the LMUN conference as the delegate of Australia in the UN Women committee. She also participated in LMUN 2024 as the delegate of South Africa in the United Nations Human Rights Council (UNHCR) where she won the Honourable Mention Award. She is deeply passionate about human right issues, specifically women's rights.

Boluwatife is a 500-level law student at the University of Lagos. She participated in the Youth International Summit Model United Nations (YISMUN) in 2020, an experience that deepened her interest in global affairs and advocacy. Her academic interests include intellectual property law and feminist legal issues, and she enjoys writing insightful legal articles that explore these topics. She believes in the power of legal writing to drive awareness and spark conversations around critical issues.

Tolúwanimí is a communications strategist with a focus on research communications for sustainable outcomes. Her first Model United Nations experience was as the delegate of Albania at the Babcock International Model United Nations. She thereafter participated in LMUN 2024 as the Delegate of Zimbabwe in the UN Women committee, where she earned a Honourable Mention Award. She is passionate about how indigenous languages can facilitate educational equity in the world.

The World Intellectual Property Organization serves as the global forum for intellectual property services, policy, information and cooperation. In today's rapidly evolving digital landscape, WIPO's work has never been more crucial. As technological advancements accelerate and creative industries globalise, the need for balanced and effective international IP systems grows increasingly vital.

Topics for deliberation under this committee include:

I. Intellectual Property and Digital Piracy: Protecting Content in the Digital Era

II. The Role of WIPO in Resolving Cross-Border IP Disputes

The Background Guide provides essential context for these topics, offering definitions of key terms, relevant legal frameworks and perspectives on major debates. I encourage you to use it as a starting point for deeper research. The Annotated Bibliography and Bibliography sections will direct you to authoritative sources that will strengthen your understanding and position papers.

In addition to the Background Guide, please familiarise yourself with the Delegate Preparation Guide and Rules of Procedure available on the LMUN website (www.lmun.ng). These resources will ensure you understand conference protocols and expectations, allowing you to participate fully and confidently.

All delegates must submit a position paper by the deadline (to be announced following country assignments). Your position paper should articulate your assigned country's stance on both agenda topics, reflecting thorough research and thoughtful analysis. Please adhere to the formatting guidelines available on the LMUN website.

For any questions regarding committee preparation or conference logistics, please contact usgdevelopment@lmun.ng. Our team is committed to supporting your preparation and ensuring a rewarding experience.

I look forward to witnessing your engagement with these fascinating intellectual property challenges. The discussions you have and resolutions you craft may well foreshadow real solutions to be implemented on the global stage in years to come.

Welcome to LMUN 2025. Welcome to WIPO.

Anita Madu,
USG, Development, LMUN 2025.

Committee Overview

I. Introduction

The World Intellectual Property Organisation (WIPO) is a specialised agency of the United Nations that is concerned with the protection of Intellectual Property (IP) worldwide. It was established on July 14, 1967, through the WIPO Convention, formally known as the Convention Establishing the World Intellectual Property Organisation. This treaty was signed on July 14, 1967, in Stockholm, and it entered into force in 1970. The convention was later amended in 1979 to address procedural aspects and administrative matters. The amendment also improved coordination on global intellectual property issues with other international organisations and Member States.[1]

The organisation builds on earlier frameworks like the *Paris Convention for the Protection of Industrial Property* (1883) and the *Berne Convention for the Protection of Literary and Artistic Works* (1886). WIPO's mandate encompasses the development of a balanced and accessible international IP system for the purpose of safeguarding innovative ideas and the products and services that emerge from them within its 193 Member States. The establishment of WIPO was in response to the increasing trends of cross-national trade and the recognition that the protection of intellectual property rights is deeply important for economic development and cultural exchange. The agency has its operational headquarters in Geneva, Switzerland, where it conducts treaty administration, technical cooperation, and dispute resolution.[2]

WIPO governs a comprehensive portfolio of 27 treaties, including the *WIPO Convention*, the *Patent Cooperation Treaty* (PCT) (1970), and the *Madrid Protocol* (1989) for the international registration of

[1] WIPO, "WIPO Convention,"

[2] World Intellectual Property Organization, *WIPO Overview 2010: A Brief History* (WIPO 2010) 1–2

trademarks. The *Madrid System*, which consists of the *Madrid Agreement* (1891) and the *Madrid Protocol* (1989), offers a cost-effective solution for registering and managing trademarks across 131 countries.[3] WIPO's efforts include developing digital rights management systems, providing technical support to Member States, and coordinating agreements to ensure consistent enforcement standards.

According to WIPO's 2022 report, increased awareness on topical issues that arise in IP enforcement and in building a culture of respect for IP is crucial. The Regional High-Level Meeting on Copyright Enforcement in the Digital Environment was held in Seoul, Republic of Korea, on April 26 and 27, 2023. Some 46 participants discussed contemporary issues in online copyright enforcement with a view to enabling participating countries to develop effective national policies [4]

According to the WIPO Performance Report 2022/23, WIPO brings the international community together to proactively address emerging issues and policy challenges at the global level relating to IP, innovation, and creativity. This includes legislative and policy advice on the use of Trade-Related Aspects of Intellectual Property Rights (TRIPS) flexibilities, patents, and trade secrets, as well as support for [5]discussions on various IP-related issues.[2] WIPO's Arbitration and Mediation Centre, which was established in 1994, provides an impartial platform for resolving cross-border intellectual property disputes. The Centre has developed new services to facilitate contract negotiation and management of disputes in long-term life sciences collaborations. By the end of 2023, WIPO mediation and/or arbitration clauses had been included in more than 75 licensing agreements concluded by the Board of the Medicines Patent Pool (MPP) with licenses in some 25 jurisdictions.

[3] https://www.wipo.int/treaties/en/
[4] WIPO Performance Report 2022/23, p. 104
[5] WIPO Performance Report 2022/23, p. 20

Cases handled by the Centre include high-profile matters such as pharmaceutical patent disputes and licensing conflicts.

II. Governance, Structure, and Membership

WIPO operates as an intergovernmental organisation under the United Nations framework, serving as the global forum for intellectual property (IP) services, policy, and cooperation. Its governance structure is designed to ensure representation, transparency, and efficiency in decision-making, encompassing multiple levels of leadership and oversight.

Governance Structure and Leadership

The main policy and decision-making bodies of WIPO's Member States are the WIPO General Assembly and the WIPO Coordination Committee. There are also assemblies of certain of the unions established under some WIPO-administered treaties: for instance, PCT Union Assembly and the Madrid Union Assembly. Standing committees are established for a particular purpose by the General Assembly. A standing committee or any of the assemblies can set up a working group to examine questions in more detail.

General Assembly

The General Assembly is WIPO's highest decision-making body, comprising all 193 Member States. It meets annually to approve the organisation's budget, set strategic priorities, and make key policy decisions. Each Member State has one vote, and decisions are typically reached by consensus. The General Assembly also establishes committees and working groups to address specific IP-related issues. The Assembly holds meetings annually in either ordinary or extraordinary sessions.[6]

[6] WIPO Decision Making and Negotiation Bodies

Permanent and Standing Committees

WIPO's governing bodies may establish permanent committees or ad hoc standing committees as needed to address specific issues.

Permanent Committees: These include the Program and Budget Committee (PBC), the Committee on Development and Intellectual Property (CDIP), and the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge, and Folklore (IGC). These committees address ongoing concerns related to various aspects of IP and development.

Standing Committees: These committees are created by the General Assembly to focus on particular areas of IP law. Examples include the Standing Committee on the Law of Patents (SCP), the Standing Committee on the Law of Trademarks, Industrial Designs and Geographical Indications (SCT), and the Standing Committee on Copyright and Related Rights (SCCR). These committees play a critical role in shaping international IP law and revising systems as necessary.[7]

Coordination Committee

The Coordination Committee oversees administrative and financial matters, including the appointment of the Director-General. It ensures the implementation of General Assembly decisions and facilitates cooperation among different WIPO bodies. This committee, composed of Member States elected from the General Assembly, plays a central role in managing WIPO's affairs.[8]

Leadership and Appointments

Director-General

[7] WIPO Decision Making and Negotiation Bodies

[8] World Intellectual Property Organization, WIPO Overview 2010: A Brief History (WIPO 2010) 1–2

The Director-General is the chief executive officer of WIPO and is appointed by the General Assembly upon the recommendation of the Coordination Committee. Serving a fixed term, the Director-General is responsible for the overall administration of WIPO, implementation of policies, and representation of the organisation at international forums. The Director-General also leads WIPO's efforts in policy development, treaty negotiations, and capacity-building initiatives.[9]

Deputy Directors-General and Assistant Directors-General

Supporting the Director-General, WIPO has multiple Deputy Directors-General and Assistant Directors-General, each overseeing specific areas such as patents, copyrights, trademarks, innovation and technology transfer, global communications, and financial management. The Director-General appoints these officials and is instrumental in shaping WIPO's strategic direction and operational efficiency.

Standing Committees and Working Groups

WIPO has several standing committees that focus on specific aspects of intellectual property, [10] including:

Standing Committee on the Law of Patents (SCP) – Addresses patent law and policy issues.

Standing Committee on Copyright and Related Rights (SCCR) – Develops international copyright policies.

Standing Committee on the Law of Trademarks, Industrial Designs, and Geographical Indications (SCT) – Deals with trademark-related matters.

[9] WIPO GENERAL ASSEMBLY Thirty-Sixth (18th Extraordinary) Session Geneva, September 22 to 30, 2008 APPOINTMENT OF THE NEW DIRECTOR GENERAL

[10] World Intellectual Property Organization, WIPO Overview 2010: A Brief History (WIPO 2010)

Committee on WIPO Standards (CWS) – Works on harmonising IP standards.

These committees, composed of Member States' representatives, conduct discussions, propose recommendations, and draft treaties and guidelines.

WIPO's Organisational Departments

WIPO is divided into several key departments that work together to fulfill the organisation's mandate:

Legal and Treaties Department: Administers and develops the 27 international treaties under WIPO, ensuring legal consistency and compliance among Member States.

International Bureau: Serves as WIPO's administrative and technical secretariat, facilitating communication between Member States and overseeing treaty implementation.

Global IP Services Sector: Manages the Patent Cooperation Treaty (PCT), the Madrid System for trademarks, and the Hague System for industrial designs.

Technology and Innovation Support Department: Provides technical assistance and capacity-building programs for developing countries.

Finance and Administration Department: Oversees budgeting, resource allocation, and financial reporting.

Communications and External Relations Division: Handles public outreach, media relations, and partnerships with other international organisations.

WIPO Academy: Provides education and training on intellectual property laws and practices.

Cooperation Among Departments and Member States

WIPO's departments and governance bodies work in unison to support the organisation's broader mission. The General Assembly sets policy direction, which the Director-General and senior officials then execute. The various committees ensure that policies are well-researched, legally sound, and internationally accepted. Meanwhile, operational departments provide the necessary administrative, technical, and legal support to implement these policies effectively.

Furthermore, WIPO collaborates with national IP offices, research institutions, and private-sector stakeholders to ensure that its treaties and frameworks are adaptable to emerging global trends. Member States contribute through consultations, negotiations, and financial support, ensuring that WIPO remains a dynamic and inclusive institution.

The agency administers 27 treaties that establish global standards for the registration and protection of patents, trademarks, and other IP rights. In addition to the WIPO Convention, these treaties include the *Beijing Treaty on Audiovisual Performances*,[11] *Berne Convention*[12], *Brussels Convention*,[13] *Marrakesh VIP Treaty*,[14] *Nairobi Treaty*,[15] *Paris Convention*,[16] *Patent Law Treaty*,[17] *Phonograms Convention*,[18] *Rome Convention*,[19] *Singapore Treaty on the Law of Trademarks*,[20] *Trademark*

[11] Beijing Treaty on Audiovisual Performances, adopted: June 24, 2012
[12] Berne Convention for the Protection of Literary and Artistic Works, adopted: September 9, 1886
[13] Brussels Convention Relating to the Distribution of Programme-Carrying Signals Transmitted by Satellite, adopted: May 21, 1974
[14] Marrakesh VIP Treaty, adopted: June 27, 2013
[15] Nairobi Treaty on the Protection of the Olympic Symbol, adopted: September 26, 1981
[16] Paris Convention for the Protection of Industrial Property, adopted: March 20, 1883
[17] Patent Law Treaty, adopted: June 1, 2000
[18] Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication of Their Phonograms, adopted: October 29, 1971
[19] Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations, adopted: October 26, 1961
[20] Singapore Treaty on the Law of Trademarks, adopted: March 27, 2006

Law Treaty,[21] *Washington Treaty,*[22] *WIPO Copyright Treaty* (WCT),[23] *WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge* (WIPO GRATK),[24] *WIPO Performances and Phonograms Treaty* (WPPT)[25], *Budapest Treaty,*[26] *Hague Agreement,*[27] *Lisbon Agreement,*[28] *Madrid Agreement (Marks)*[29], *Madrid Protocol,*[30] *Patent Cooperation Treaty (PCT),*[31] *Locarno Agreement,*[32] *Nice Agreement,*[33] *Strasbourg Agreement,*[34] *and the Vienna Agreement.*[35]

Some of these treaties are interconnected and mutually reinforcing. For example, the *Madrid Protocol* and the *Madrid Agreement* collaborate to create a comprehensive system for the international registration of trademarks. The *Madrid Protocol* offers greater flexibility and a broader membership, while the *Madrid Agreement* provides a solid foundation for the system.

Additionally, the *Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired, or Otherwise Print Disabled* (Marrakesh VIP Treaty 2013) has significant implications for African Member States. This treaty helps bridge the gap in access to educational and cultural materials for millions of people across the continent. These interconnected treaties work together to consolidate the global intellectual property framework in a way that prioritises inclusivity and adaptability to the unique needs of different regions and communities around the world.

[21] Trademark Law Treaty, adopted: October 27, 1994
[22] Washington Treaty on Intellectual Property in Respect of Integrated Circuits, adopted: May 26, 1989
[23] WIPO Copyright Treaty (WCT), adopted: December 20, 1996
[24] WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge (WIPO GRATK), adopted: June 25, 2019
[25] WIPO Performances and Phonograms Treaty (WPPT), adopted: December 20, 1996
[26] Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure, adopted: April 28, 1977
[27] Hague Agreement Concerning the International Registration of Industrial Designs, adopted: November 6, 1925
[28] Lisbon Agreement for the Protection of Appellations of Origin and their International Registration, adopted: October 31, 1958
[29] Madrid Agreement Concerning the International Registration of Marks, adopted: April 14, 1891
[30] Madrid Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks, adopted: June 27, 1989
[31] Patent Cooperation Treaty (PCT), adopted: June 19, 1970
[32] Locarno Agreement Establishing an International Classification for Industrial Designs, adopted: October 8, 1968
[33] Nice Agreement Concerning the International Classification of Goods and Services for the Purposes of the Registration of Marks, adopted: June 15, 1957
[34] Strasbourg Agreement Concerning the International Patent Classification, adopted: March 24, 1971
[35] Vienna Agreement Establishing an International Classification of the Figurative Elements of Marks, adopted: June 12, 1973

III. Mandate, Functions, and Powers

The *World Intellectual Property Organisation (WIPO)* is the principal international body for intellectual property (IP) governance, and it provides a global platform for IP services, policy formulation, information sharing, and international cooperation. As a specialised agency of the *United Nations (UN)*, WIPO plays a major role in establishing harmonised legal frameworks that facilitate the recognition and enforcement of IP rights across jurisdictions.

This background guide discusses WIPO's three core pillars:

- Its mandate is to protect and promote intellectual property rights internationally.
- It functions as an administrative body that manages global IP systems and treaties.
- Its role in dispute resolution and in fostering international cooperation among stakeholders, including governments, businesses, and creators.

The organisation's activities encompass policy development, technical assistance, and knowledge dissemination, operating within a complex framework of international law and multilateral agreements. WIPO's work directly impacts economic growth, innovation, and technological advancement by ensuring that intellectual property serves as a tool for sustainable development rather than a barrier to participation in the global economy.

The *World Intellectual Property Organisation's (WIPO)* mandate derives from the WIPO Convention of 1967, specifically Article 3, which establishes its fundamental objectives and functions. This foundational treaty entrusts WIPO with the responsibility to promote the protection of intellectual property worldwide through cooperation among states and in collaboration with other international

organisations. The treaty also empowers WIPO to assist developing countries in leveraging IP for economic and social progress.

WIPO was elevated to the status of a *United Nations specialised agency* in 1974, further integrating its activities with the broader objectives of the UN system. This institutional alignment enables WIPO to contribute to key global challenges such as:

- **Sustainable Development Goals (SDGs):** WIPO supports economic diversification, job creation, and the protection of traditional knowledge and cultural expressions.
- **Climate Change Mitigation:** Through initiatives such as the *WIPO GREEN* platform, WIPO facilitates the transfer and deployment of environmentally friendly technologies.
- **Public Health Advancement:** The organisation administers patent-related initiatives like *WIPO Re:Search*, thereby promoting collaboration in the development of treatments for neglected tropical diseases and pandemics.[36]

Furthermore, WIPO's engagement within the UN system reinforces its role in balancing the interests of creators, consumers, and national economies. It ensures that IP laws and policies remain adaptable and scalable with digital tools.

Treaty Administration And Capacity Development

WIPO administers 27 international treaties, with the *Patent Cooperation Treaty* (PCT) and *Madrid Protocol* serving as primary instruments for multi-jurisdictional IP protection). These legal frameworks streamline international IP registration procedures, demonstrating measurable

[36] World Intellectual Property Organization (WIPO). Research Collaborations: WIPO Guide. 2019.

reductions in administrative complexity and financial obligations for applicants and Member States.[37]

- **Patent Cooperation Treaty (PCT):** This treaty allows inventors to seek patent protection in multiple countries through a single international application, significantly simplifying the patent process and reducing costs.
- **Madrid Protocol:** This facilitates the international registration of trademarks, enabling businesses to protect their brands in multiple jurisdictions with a single application.
- **Berne Convention for the Protection of Literary and Artistic Works:** This treaty ensures the automatic protection of copyright for creators across all Member States without requiring formal registration.
- **Paris Convention for the Protection of Industrial Property:** One of the oldest IP treaties, the Paris Convention provides fundamental principles for protecting patents, trademarks, and industrial designs internationally.
- **Budapest Treaty:** This agreement simplifies the international recognition of micro-organism deposits for patent procedures, reducing duplicative efforts in scientific and biotechnological research.

Technical Assistance Infrastructure

The Technology and Innovation Support Centres (TISCs) program maintains operational networks across 93 countries[38] delivering:

[37] PCT Annual Review, 2023, p. 23
[38] WIPO TISCS Report, 2023, p. 7

- **Technology and Innovation Support Centres (TISCs):** Operational in **93 countries**, these centres provide vital services such as patent search optimisation, technical analytics support, commercialisation guidance, and facilitation of local innovation ecosystems.
- **WIPO Academy** Offers distance learning courses that attract over 100,000 participants annually. These courses cover a range of topics, including traditional IP administration, artificial intelligence applications in IP, blockchain technology integration, and advanced certification programs.
- **Capacity-Building Initiatives:** WIPO provides tailored assistance to developing and least-developed countries, to make sure that they have the institutional capacity to implement and enforce IP laws effectively.

Alternative Dispute Resolution

Alternative Dispute Resolution (ADR) refers to ways of resolving disagreements outside of the traditional courtroom setting. Instead of going through lengthy and costly court trials, parties can choose ADR methods that are generally quicker and less formal. The main types of ADR include:

- **Mediation:** A neutral third party, called a mediator, helps the disputing parties talk through their issues and work toward a settlement. The mediator does not decide the outcome but guides the conversation so that both sides can reach a mutually acceptable agreement.
- **Arbitration:** In arbitration, the parties agree to submit their dispute to one or more arbitrators, who act like private judges. The arbitrator listens to both sides and then makes a binding decision.

- Expert Determination is used when a dispute involves highly technical or specialised matters. The parties select an expert to review the issue and make a decision that is typically binding unless they agree otherwise.

This guide is intended to offer you a basic understanding of WIPO and ADR. It explains why these methods are used to resolve disputes, especially those involving intellectual property, and how they contribute to a more efficient and cooperative international legal environment. The WIPO Arbitration and Mediation Centre is a dedicated branch within WIPO that specialises in resolving international disputes involving intellectual property and technology. Below are some of the principles that guide the Centre:

- **Neutrality:** The Centre provides a neutral forum where parties from different countries can resolve their disputes without any bias.
- **Efficiency:** It helps parties avoid the time, expense, and complexity of going to court. For example, many of its mediation cases end in a settlement, meaning that the conflict is resolved without further legal action.
- **Specialized Procedures:** The Centre has developed specific protocols to handle disputes in technical fields such as standard-essential patents (vital for many modern technologies), life sciences (which can affect medical treatments and research), entertainment (resolving issues over copyrights and licensing), and technology transfer (agreements for sharing technical knowledge).
- **Preserving Relationships:** ADR is less adversarial than court proceedings. This means that while disputes are resolved, the working relationships between parties are more likely to be maintained, an important factor in international business and innovation

- **Cross-Border Relevance:** Disputes often involve parties from different countries. WIPO's ADR services resolve these conflicts in a single, neutral process rather than through multiple court systems.
- **Time and Cost Savings:** ADR methods typically resolve disputes faster and at a lower cost than traditional litigation. This efficiency is crucial for businesses and innovators who need to focus on their core activities.
- **Expert Guidance:** Because intellectual property disputes can involve very technical issues, the ability to choose a mediator or arbitrator with specialized knowledge is a major advantage.

The Uniform Domain Name Dispute Resolution Policy (UDRP) has adjudicated over 67,625 cybersquatting cases since its inception, establishing authoritative precedents in digital IP protection. In 2023 alone, WIPO administered nearly 6,200 complaints, marking a Seven percent increase from 2022 and a 68 percent increase since the onset of the COVID-19 pandemic. The WIPO Arbitration and Mediation Centre's technological infrastructure includes the WIPO eADR platform for digital case management, electronic evidence submission protocols, remote hearing capabilities, and the WIPO Proof digital authentication service. The Centre's technological infrastructure includes:

- **WIPO ADR Platform for Digital Case Management:** This platform provides a seamless and secure system for managing dispute resolution cases entirely online. It allows parties, arbitrators, and mediators to access case files, submit documents, and track case progress from initiation to resolution, reducing the need for physical paperwork and meetings.

- **Electronic Evidence Submission Protocols:** These protocols enable parties to submit evidence electronically in a structured and secure manner. This ensures that key documents and information are available for review by the parties and adjudicators while maintaining data integrity and confidentiality throughout the process.

- **Remote Hearing Capabilities:** WIPO's remote hearing features allow parties from different locations around the world to participate in hearings without the need to travel. Through secure video conferencing tools, WIPO ensures that procedural fairness and transparency are maintained during virtual proceedings.

- **WIPO Proof Digital Authentication Service:** This service provides tamper-proof digital timestamps for electronic files, helping parties prove the existence and integrity of a document or data at a specific point in time. This tool is especially valuable for establishing evidence in time-sensitive intellectual property disputes.[39]

Knowledge Dissemination And Data Management

WIPO collaborates with intellectual property (IP) offices, users, and other stakeholders to develop shared IP tools, services, standards, databases, and platforms. This technical infrastructure is designed to help IP institutions collaborate more effectively and deliver more efficient services to their users while enabling innovators and information-seekers worldwide to freely access the knowledge contained in the IP system. WIPO's approach to building global technical infrastructure includes the development and sharing of common IP standards and classifications, global IP databases and other digital IP information, patent information, and other IP information resources,

[39] (WIPO Digital Services Report, 2023, pp. 28-30)

Technology Innovation Support Centre (TISC) networks, business solutions to support IP office functions, and IP and Frontier Technologies.

- **IP Databases and Digital Tools:** WIPO maintains extensive databases that provide free access to patent, trademark, and design information, enabling innovators and businesses to make informed decisions.
- **Technology Innovation Support Centre (TISC) Networks:** These networks bridge knowledge gaps by connecting local institutions with global IP resources, fostering research and development.
- **Business Solutions for IP Offices:** WIPO develops software and platforms to support IP offices in managing applications, registrations, and legal enforcement more efficiently.
- **IP and Frontier Technologies:** The organisation actively explores how emerging technologies like artificial intelligence, blockchain, and big data analytics can enhance the efficiency and accessibility of the IP system.

IV. Recent Sessions and Current Priorities

Recent discussions have been concerned with digitalisation and its implications for IP systems[40]. The 2023 General Assembly reviewed measures to improve accessibility for small enterprises and address issues arising from AI-generated content. Some of the major issues resolved include strengthening the *Patent Cooperation Treaty* (PCT) and refining alternative dispute resolution mechanisms. WIPO's Strategic Plan for 2022–2026 prioritises equitable access to IP systems, particularly in developing countries. It outlines goals such as improving IP registration tools, harmonising national laws, and expanding capacity-building programmes.

[40] WIPO General Assembly 2023 Highlights, p. 12

WIPO has sustained an intensive schedule of sessions in fulfilment of its role in crafting global intellectual property (IP) policies. These meetings are structured to scrutinise ongoing operations whilst establishing objectives that respond to digital evolution, sustainable development, and equitable innovation. This section is a brief examination of some principal recent sessions and WIPO's current priorities.

Recent Sessions

The 65th Assemblies of the Member States assembled in Geneva, uniting all 193 Member States for an exhaustive review. Delegates prioritised evaluating WIPO's strategic roadmap, endorsing the budget, and enhancing governance mechanisms. A significant focus was preserving the efficacy of IP service systems, such as the Patent Cooperation Treaty (PCT), Madrid System for trademarks, and Hague System for designs to ensure they remain cost-effective amidst escalating global demand. The purpose was to sustain WIPO's operational integrity, facilitating affordable IP protection for creators worldwide, whilst laying the groundwork for subsequent treaty negotiations.

Diplomatic Conference on Genetic Resources and Associated Traditional Knowledge (May 2024)

From 13 to 24 May 2024, the Diplomatic Conference on Genetic Resources and Associated Traditional Knowledge convened in Geneva, achieving a landmark agreement. The priority was finalising a treaty to incorporate genetic resources (e.g., medicinal plants) and associated traditional knowledge (e.g., indigenous healing practices) into the IP framework, mandating disclosure of origins in patent applications. Discussions emphasised equitable benefit-sharing with indigenous and local communities. The purpose was to harmonise modern innovation with traditional heritage, rectifying

inequities. Concluded on 24 May, the treaty's impact establishes a more inclusive IP system, as outlined by WIPO [41]

Diplomatic Conference on a Design Law Treaty (November 2024)

The Diplomatic Conference on a Design Law Treaty occurred in Riyadh, Saudi Arabia, from 11 to 22 November 2024, targeting global design protection harmonisation. Preceded by a Special Session of the Standing Committee on the Law of Trademarks, Industrial Designs and Geographical Indications in October 2023, the conference prioritised developing a treaty to streamline design registration, reducing procedural costs and complexities for innovators across sectors like fashion, furniture, and technology manufacturing, where design IP is critical. Delegates aimed to standardise requirements, eliminating inefficiencies that hinder cross-border protection. The purpose was to broaden access to design IP, fostering creative industries essential to economic vitality. Finalised on 22 November, the treaty's impact is a simplified, cooperative system that empowers designers globally, strengthening industry competitiveness, as WIPO reported [42]

Conversation on Intellectual Property and Frontier Technologies

WIPO also organises thematic workshops. For example, the "WIPO Conversation on IP and Frontier Technologies" held on 13-14 March 2024. The priority was addressing the intersection of IP with emerging technologies, including artificial intelligence (AI), blockchain, and digital content platforms, through expert-led panels. Discussions explored how existing IP rules apply to AI-generated works, digital distribution, and data ownership, areas increasingly vital to global innovation. The purpose was to adapt IP frameworks to the digital era, to make sure they facilitate rather than obstruct

[41] WIPO, "WIPO Member States Adopt New Treaty on IP, Genetic Resources and Traditional Knowledge,"
[42] (WIPO, 2024) WIPO, 'WIPO Members Adopt Design Law Treaty in Riyadh

technological advancement. The proposed impact is a more agile IP system, capable of supporting creators in rapidly evolving tech sectors.[43]

Current Priorities

Treaty Negotiations and Policy Development

WIPO prioritises advancing treaty negotiations to modernise IP legislation, exemplified by the 2024 treaties on genetic resources and design law. This effort involves updating legal frameworks to address gaps in protection, such as those affecting traditional knowledge holders or design innovators, whilst ensuring sustainability and fairness. The aim is to craft policies that balance the interests of developed and developing Member States, to support equitable global IP standards. These treaties enhance international trust and collaboration, setting a precedent for future agreements[44] .

Digital Transformation and Innovation

WIPO concentrates on adapting IP policies to emerging technologies like AI, digital platforms, and data systems. They have set up a Digital Transformation Task Force, which prioritises how to protect AI-generated inventions, secure digital content rights, and manage data-driven innovation, for the creative world and the global economy. They ensure IP remains relevant and supportive for creators navigating technological disruption, as evidenced in WIPO's technology-focused initiatives.[45]

[43] (WIPO, 2024) WIPO, WIPO Conversation on Intellectual Property and Frontier Technologies - Ninth Session WIPO IP CONV GE 24 Day 2 Afternoon
[44] WIPO, "Treaties and Contracting Parties"
[45] WIPO "Digital Transformation Task Force: Background Information

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> *This treaty established WIPO as a specialised agency of the United Nations responsible for promoting intellectual property (IP) protection worldwide. It defines WIPO's functions, governance, and role in administering international IP treaties.*

General Rules of Procedure, as adopted by the WIPO General Assembly. Accessed at https://www.wipo.int/policy/en/rules_of_procedure.html on 26 December 2024.

> *These rules outline the procedures for WIPO's decision-making bodies, including the General Assembly and committees. They set guidelines on meetings, voting, and administrative processes within the organisation.*

Paris Convention for the Protection of Industrial Property, signed at Paris on 20 March 1883 and revised at Stockholm on 14 July 1967. Accessed at https://www.wipo.int/treaties/en/ip/paris/ on 27 December 2024.

> *One of the earliest international IP treaties, the Paris Convention ensures that inventors and businesses receive equal patent and trade mark protection across member countries. It introduced key principles such as national treatment and priority rights.*

Berne Convention for the Protection of Literary and Artistic Works, signed at Berne on 9 September 1886 and revised at Paris on 24 July 1971. Accessed at https://www.wipo.int/treaties/en/ip/berne/ on 25 December 2024.

This treaty established international copyright protection for literary and artistic works. It guarantees authors automatic rights to their works in all member countries without the need for formal registration.

WIPO-Administered Treaties. Accessed at https://www.wipo.int/treaties/en/ on 26 December 2024.

This page provides an overview of the international treaties managed by WIPO, covering patents, trade marks, copyrights, and other forms of intellectual property. It serves as a key resource for understanding global IP regulations.

WIPO Performance Report 2022/23, published on 16 September 2024. Accessed at https://www.wipo.int/export/sites/www/about-wipo/en/budget/pdf/wpr-2022-23.pdf on 26 December 2024.

This report details WIPO's activities, financial performance, and key initiatives for the 2022–2023 period. It provides insights into the organisation's impact on global intellectual property policy and administration.

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Topic One: Intellectual Property and Digital Piracy:

Protecting Content in the Digital Era

I. Quote

Counterfeiting and piracy have gone from being a business infraction at the local level to a global problem touching all industry sectors and consumers." [46] - Dee Ann Weldon-Wilson**, former President of the International Trademark Association (INTA)**

II. INTRODUCTION

The protection of intellectual property (IP)—whether it concerns designs, literary works, inventions, or any other product of human creativity—has long been a universally accepted principle that resonates deeply across various cultures and walks of life.[47] The importance of IP protection lies not only in safeguarding the efforts of creators and innovators from unauthorised exploitation but also in providing a secure environment where true creators can unleash their full potential.[48] By securing their work under intellectual property laws, creators are empowered to explore deeper levels of creativity and innovation without the constant fear of having their ideas stolen or misused by unscrupulous actors.[49] Intellectual property protection is, therefore, foundational to encouraging the free flow of ideas and innovation that drive economic and cultural development worldwide.

[46] WIPO, 'Global Congress Calls for Greater Effort and Resources in Combating Counterfeiting and Piracy Worldwide', PR/2007/475 (30 January 2007)
[47] Gary L Deel, 'What Is Intellectual Property Law? And Why Does It Matter?', American Public University (13 July 2023)
[48] Christopher Johnson and Daniel Walworth, 'Protecting U.S. Intellectual Property Rights and the Challenges of Digital Piracy, OFFICE of INDUSTRIES WORKING PAPER U.S. International Trade Commission' (2003), para. 3
[49]Christopher Johnson and Daniel Walworth, 'Protecting U.S. Intellectual Property Rights and the Challenges of Digital Piracy, OFFICE of INDUSTRIES WORKING PAPER U.S. International Trade Commission' (2003), para. 3.

At the same time, the rise of digital piracy presents a direct and formidable threat to this creative freedom. Digital piracy involves the unauthorised reproduction and distribution of copyrighted works, often without the creator's consent, undermining the value of intellectual property. In this environment, digital pirates—not only in the form of websites and unauthorised platforms but also organised criminal networks—have the power to strip creators of the financial and moral rights to their work. As piracy continues to gain notoriety, as well as its perpetrators, it becomes increasingly difficult for creators to protect their intellectual property and reap the benefits of their innovations. This creates a destabilising effect on industries, discouraging investment in creativity and innovation. Consequently, intellectual property protection in the digital age has become one of the most critical yet often overlooked challenges facing global governance.

The impact of digital transformation on intellectual property protection is undeniably complex, presenting both opportunities and risks. On one hand, digital technologies have revolutionized the way intellectual property is created, shared, and consumed, expanding access to information and empowering new forms of innovation. The proliferation of digital platforms, streaming services, and online markets has opened up new revenue streams and allowed creators to reach global audiences. However, this rapid digital expansion has also created fertile ground for piracy to thrive. With the ease of copying and distributing content online, digital piracy undermines the rights of creators, eroding their potential earnings and stifling future innovation. As a result, there is a deep structural tension between the need to protect intellectual property rights and the demands of a fast-paced, borderless digital economy.

In light of these challenges, the work of the World Intellectual Property Organization (WIPO) has become increasingly critical. **WIPO** has been at the forefront of addressing the gaps in international

IP protection, working tirelessly to raise global awareness about the importance of intellectual property and its protection in an increasingly digital world. Through initiatives like the **World Copyright Treaty** (WCT) and the **WIPO** Performances and Phonograms Treaty (WPPT), WIPO has made significant strides in creating international standards for the protection of intellectual property in the digital realm. These treaties seek to provide creators with the legal tools to protect their works in the face of digital piracy, including provisions for the enforcement of rights in the online environment.[50]

However, despite WIPO's efforts to create international frameworks for IP protection, the true power to enforce these policies lies within national governments. It is at the national level where laws and regulations are enacted, and only through robust domestic enforcement that international measures can be effectively implemented. Governments must establish the necessary legal infrastructure to combat piracy, including stronger laws that target digital piracy, as well as effective mechanisms for blocking pirate websites and prosecuting offenders.[51]

Without national action, the global treaties and agreements on IP protection remain merely symbolic, and the widespread problem of digital piracy will continue to undermine the rights of creators and innovators worldwide.[52] Therefore, while WIPO plays a crucial role in creating a foundation for intellectual property protection, it is up to individual nations to take the necessary steps to uphold and enforce these protections within their borders.

[50] WIPO, Summary of the WIPO Copyright Treaty (WCT) (1996); WIPO, Summary of the WIPO Performances and Phonograms Treaty (WPPT) (1996)
[51] U.S. Chamber of Commerce, 'How IP Rights Protect and Support Innovators' (20 March 2023).
[52] U.S. Chamber of Commerce, 'How IP Rights Protect and Support Innovators' (20 March 2023).

III. Definition of Key Terms

Copyright: Copyright (or author's right) 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.[53]

Piracy: The illegal act of tampering with a creative work without proper authorization, often through unauthorized reproduction, distribution, sale, or other means of exploitation.

Digital piracy: Online or digital piracy refers to the unauthorised distribution and use of copyrighted digital content, including music, movies, software, games, e-books, and other types of content. It involves the sharing, downloading, and uploading of digital files that are protected by copyright law without the permission of the owner.[54]

Infringement: It is an act of defiance that involves outright disregard for the law or encroachment on the existing rights of a person, such as copyrights, patents, and other forms of intellectual property.

Circumvention: It involves bypassing or going around the boundaries set by law in order to interfere with another's rights or to carry out an act that is illegal.

IV. International and Regional Legal Framework

The world we live in today is highly digitalised, with nearly every aspect of life transitioning from the analogue to the digital space. While this allows creators to exploit the means of distributing their works, it also facilitates digital piracy. This places their works in a vulnerable position as both the

[53] WIPO, Copyright
[54] MUSO, What is Digital Piracy?

protected works and the tools to pirate them exist online, enabling pirated content to reach wider audiences effortlessly.

Despite these challenges, it would be a case of "throwing the baby away with the bath water" to consider discarding it. This is because digitalisation has become indispensable. It empowers creators, streamlines processes, and enriches lives.

Various international and regional frameworks have been established to address the risks associated with the digital space. These frameworks aim to create a safer digital environment where innovation and creativity can thrive while protecting creators' rights.

The Agreement on Trade-Related Aspects of Intellectual Property Rights[55] *(TRIPS)* is an international legal agreement binding on all Member States of the **World Trade Organization** (WTO). The binding nature of this treaty is granted by virtue of ***Article II(2) of the World Trade Organization Agreement***[56]. It provides that: *"The agreements and associated legal instruments included in Annexes 1, 2 and 3 (hereinafter referred to as "Multilateral Trade Agreements") are integral parts of this Agreement, binding on all Members."*

Upon establishing the binding nature of the TRIPS, it is pertinent to note that ***Article 41 of TRIPS*** provides that Member States are to put effective means in place to counter infringement and provide *"remedies which constitute a deterrent to further infringements."*

The TRIPS Agreement further takes a unique stand by providing in ***Article 61*** that Members shall provide for criminal procedures and penalties to be applied, "at least in cases of wilful trademark counterfeiting or copyright piracy on a commercial scale."

[55] 1869 U.N.T.S. 299 33 I.L.M. 1197.
[56] Apr. 15, 1994, 1867 U.N.T.S. 154.

By criminalizing acts such as copyright piracy, the Agreement highlights the gravity of the offense. This article further provides that the penalties should deter further commission of the offense.

Although *The Berne Convention for the Protection of Literary and Artistic Works*,[57] does not explicitly protect against digital piracy, mainly because it was established before the digital age, does provide a solid foundation for modern frameworks. ***Article 5*** precludes every formality for the enjoyment of copyright. This means that works are automatically protected upon creation without the need for any registration.

It also grants several exclusive rights to authors that directly impact digital piracy. These include the exclusive right to authorise the reproduction of these works in any manner or form, broadcasting and related rights, Cinematographic adaptation, reproduction, and distribution of the protected work.[58]

Another international legal framework contributing to the fight against digital piracy is *the World Intellectual Property Organization Copyright Treaty*[59] *(WCT).* This treaty, which was established in 1996, is a special agreement under the Berne Convention which deals with the protection of works and the rights of their authors in the digital environment.[60] ***Article 8*** provides a strong tool against piracy as it grants authors exclusive rights to appoint persons who can distribute their works and allows creators to access their works on choice platforms. Examples of such platforms today are Netflix, Spotify, Prime, etc.

Article 11 also plays a key role in fighting piracy by providing that where authors use technological means to exploit their works, circumventing or bypassing those measures is illegal. In the words of the treaty:

[57] 828 U.N.T.S. 221.
[58] *Article 9*, *11bis*, and 14, respectively.
[59] S. Treaty Doc. No. 105-17 (1997); 2186 U.N.T.S. 121; 36 I.L.M. 65 (1997)
[60] WIPO, WIPO Copyright Treaty (WCT)

> Contracting Parties shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights under this Treaty or the Berne Convention and that restrict acts, in respect of their works, which are not authorized by the authors concerned or permitted by law.

The WIPO Performances and Phonograms Treaty (WPPT) deals with the rights of performers (actors, singers, musicians, etc.) and producers of phonograms (persons or legal entities that take the initiative and have the responsibility for the fixation of sounds), particularly in the digital environment.[61] The treaty establishes key provisions to combat digital piracy, including reproduction rights under ***Articles 7*** and ***11***, which safeguard against unauthorised copying of performances and phonograms, and distribution rights under ***Articles 8*** and ***12***, which grant control over the dissemination of these works.

Additionally, ***Article 18*** mandates Member States to enforce anti-circumvention measures, ensuring that technological protections for digital content are not bypassed. ***Article 19*** addresses obligations concerning Rights Management Information (RMI), which serves as a digital "name tag" identifying the owner of a work and outlining its permitted uses. This article prohibits actions such as the unauthorized removal or alteration of RMI, as well as the distribution, importation, broadcasting, communication, or making available to the public of performances or phonograms when it is known that the RMI has been removed or altered without authorization. These provisions collectively aim to safeguard creative works and deter digital piracy in a global context.

A Regional Framework that provides in the same vein as ***Article 11*** *of the WCT* is the *DIRECTIVE 2001/29/EC Of the European Parliament and of the Council of 22 May 2001*. This legislation aims to

[61] WIPO, WIPO Performances and Phonograms Treaty

harmonise the laws regulating copyright among European Union (EU) member states. Its peculiarity lies in addressing modern issues, such as copyright infringement in the digital space, the protection of technological measures, and rights-management information, ensuring that copyright laws remain relevant in the evolving information society.

Article 3 grants authors exclusive rights to disseminate their works to the public in ways that allow individuals to access them at their convenience. This includes the ability to publicise their works digitally and to prohibit others from disseminating them without permission. Interestingly, ***Article 3(3)*** further states that, *"The rights referred to in paragraphs 1 and 2 shall not be exhausted by any act of communication to the public or making available to the public as set out in this Article."* This implies that the protection afforded to creators does not end upon the first act of distribution or digitalisation. Instead, their rights remain intact, enabling continued control over how their works are used and shared.

It provides in ***Article 6*** that:

> Member States shall provide adequate legal protection against the circumvention of any effective technological measures, which the person concerned carries out in the knowledge, or with reasonable grounds to know, that he or she is pursuing that objective.

This legislation also recognises the key role of Rights-Management Information (RMI). ***Article 7*** thus prohibits the unauthorised removal of any electronic rights-management information. It further prohibits the dissemination or public sharing of works from which RMI has been removed or altered without proper authorization.

The Japanese parliament in 2012 made strides by passing legislation that not only made pirating copyrighted materials illegal, it also criminalised downloading such materials. *Article 199(3) of Japan's*

Copyright Act[62] (著作権法, *Chosakuken-hō*) criminalizes downloading pirated materials, even just for personal use. Where a person knowingly records an audio or video (digitally) of a work that is a copyrighted or neighboring rights–protected work, is being made available to the public for a fee (like a paid livestream, movie, concert, etc.), or has been shared online illegally, such a person will be liable to up to 2 years imprisonment or be fined up to 2 million yen. This legislation took effect in 2021.

In 1988, the U.S. signed into law the Digital Millennium Copyright Act[63] (DMCA), which implements two Acts enacted by WIPO: the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty. The DMCA is important legislation as it provides both civil and criminal sanctions for circumventing technological protection on copyrighted works. Section 1201 of the DMCA prescribes circumventing technological protection measures and making or selling circumvention tools.

This section also provides for several exceptions where circumventing access controls is allowed. Nonprofit libraries, archives, and educational institutions may do so in good faith to decide whether to purchase access. There are also exceptions which cover protecting minors online and safeguarding personal privacy when technology secretly collects user data.

Section 1202 of the DMCA prohibits tampering with copyright management information (CMI). This section bars the intentional removal or alteration of CMI without authority, as well as the dissemination of CMI or copies of works, knowing that the CMI has been removed or altered without authority. Copyright management information (CMI) is similar to rights management information

[62] Act No. 48 of May 6, 1970.
[63] PUBLIC LAW 105–304—OCT. 28, 1998

(RMI), as both function as digital identity markers and carry information about the creator's work. *Section 1202(c) of the DMCA* defines CMI as:

> Identifying information about the work, the author, the copyright owner, and in certain cases, the performer, writer, or director of the work, as well as the terms and conditions for use of the work, and such other information as the Register of Copyrights may prescribe by regulation. Information concerning users of works is explicitly excluded.

China takes a tripartite approach in combating digital piracy, which encompasses both criminal, civil, and administrative measures. ***Article 217 of the Criminal Law of the People's Republic of China*** criminalizes copying and distributing copyrighted works without permission, publishing copyrighted books owned by others, duplicating or distributing audiovisual works without authorization, and producing or selling artworks with forged signatures. It imposes a penalty of up to 3 years of imprisonment (or up to 7 years if the illegal income is substantial or circumstances are especially serious), along with possible fines.

While it does not expressly mention digital piracy, the roots of this provision are deep enough to stretch into the realms of digital infringement, because the acts it criminalises form the very bedrock of what constitutes digital piracy today.

Copyright holders in China (including victims of digital piracy) can also seek civil remedies like obtaining an injunction from the court to stop further infringement or further tampering of their work in the digital space. The Copyright Law provides that a creator, a copyright holder or neighbouring rights holder, or their rightful heir, who suffers damage, is entitled to receive

compensation. The compensation shall be given based on actual losses of the holder of rights, the illegal income of the infringer or the royalties, which will be finally decided by the civil court.[64]

V. Role of the International System

Various international systems are crucial in spearheading the fight against digital piracy. The Sustainable Development Goals (SDGs), particularly Goal 9, emphasise the importance of industry, innovation, and infrastructure. Intellectual property (IP) protection is a key driver in achieving this goal, as it enables innovation and supports industrialization.

Recognising the critical role of IP, the United Nations established WIPO to ensure the smooth operation of IP protection among member states. In its efforts to combat digital piracy, WIPO has organised numerous seminars to raise awareness and discuss potential solutions. One such seminar, *Online Piracy and Cybercrimes*, was held on July 27, 2023, and addressed the relationship between piracy and cybersecurity threats.[65]

WIPO has also launched the WIPO ALERT initiative, a secure, online platform on which authorised bodies in WIPO Member States can upload details of websites or apps that have been determined to infringe copyright according to national rules.[66]

The WIPO ALERT lets contributors, who are either governments, regulators, or industry groups report websites that share counterfeit or pirated content. By collecting this information, WIPO builds a database of such websites to prevent advertising agencies from placing ads on them. This helps fight digital piracy by cutting off the financial rewards for those involved, making it harder for them to profit from their illegal activities.

[64] Lexology, "In brief: Copyright Infringement and Remedies in China", May 15 2024
[65] WIPO "Online Piracy and Cybercrimes"
[66] WIPO "WIPO ALERT"

As of 2023, 14 countries, including Italy, the Russian Federation, Spain, Peru, Ecuador, Lithuania, the Philippines, and Uzbekistan, contribute to the WIPO ALERT initiative.

Another specialised agency of the United Nations contributing to this cause is the United Nations Educational, Scientific, and Cultural Organization (UNESCO). UNESCO operates the World Anti-Piracy Observatory (WAPO), a program dedicated to combating copyright infringement and promoting respect for creators' rights globally.

Mrs. Irina Bokova, the Director-General of UNESCO pointed out that *"in the light of the emergence of new forms of books, of changes in the design, production and access to contents of books, it is urgent to recall that there can be no book development without respect for copyright.,"* She added that *"this is particularly the case at a time when digitization further exposes books to risks of illicit use."*[67]

Recognising the threat that digital piracy is to the world audiovisual world, the Pan African Association Convergence, the Alliance for Creativity and Entertainment (ACE), the Motion Picture Association (MPA) and Canal+ with the support of the French Development Agency (AFD) hosted the International Seminar on IP Protection & Audiovisual Internet Piracy in Africa. The seminar was held in Abidjan from November 28 to 29, 2023. This seminar aimed to facilitate discussions on effective strategies to combat piracy in the audiovisual sector, promote collaboration, foster partnerships to raise awareness about the impact of piracy on the industry and its stakeholders, and share best practices among participants. The seminar had 60 participants, including judicial authorities, government officials, intellectual property specialists, lawyers, and other stakeholders.[68]

In 2024, Italian authorities launched a special initiative, Piracy Shield, to attempt to crack down on illegal streaming of live matches in real time. Under the scheme, Italy's telecoms regulator is obliged

[67] International Federation of Reproduction Rights Organization "UNESCO Launches Anti-Piracy Observatory"
[68] Alliance for creativity and entertainment, First-Ever International Seminar on IP Protection & Audiovisual Internet Piracy Held in Ivory Coast, December 7, 2023

to block within 30 minutes any IP address that broadcasters report as suspected of disseminating pirated signals of their games.[69]

In a major victory against digital piracy, Italian authorities successfully dismantled a piracy ring valued at €3 billion per year. The illegal operation had provided approximately 22 million subscribers with unauthorized access to premium content from streaming giants such as Netflix, Amazon Prime, Sky, and Disney+. Key suspects were arrested, and servers used to distribute the stolen content were also seized.[70]

The Manga and Anime Industry is a major part of Japan's entertainment sector and, over the years, has become increasingly vulnerable to digital piracy. There are at least 1,000 websites illegally offering free downloads of Japanese content, mostly its globally renowned manga graphic novels.[71] According to estimates by Japan's Content Overseas Distribution Association (CODA), the Anime and Manga industries lost approximately 1.9 to 2.2 trillion yen ($14.2 to $16.5 billion) in the fiscal year 2021 due to piracy.[72] The Japanese agency for cultural affairs has thus proposed to utilise artificial intelligence(AI) to combat this issue.[73] This initiative stems from the realisation that the digital world enables individuals to illegally distribute copyrighted works across multiple unauthorised platforms simultaneously, making it difficult for human efforts alone to keep up. Simply put, "digital problems begat digital solutions."

The use of 'dodgy boxes' in Ireland, devices that enable access to illegally distributed or streamed content, is not uncommon. In 2024, the Irish government issued warnings to homeowners about the risks associated with illegal streaming through such devices. Additionally, enforcement notices were

[69] Amy Kazmin, Italian authorities shut down €3bn-a-year pirate TV ring, November 27,2024
[70] Ibid
[71] The Japan Times, Japan to use AI to tackle online manga and anime piracy, December 4, 2024
[72] GameRant, The impact of piracy on the Anime industry
[73] Phoebe Shields, Tech Bytes: Japan Agency for Cultural Affairs proposes using AI to combat online piracy, December 4, 2024

served to providers of these illegal streaming platforms across several counties, including Dublin, Cork, and Limerick, ordering them to cease operations immediately or face prosecution. This initiative was led by The Federation Against Copyright Theft (FACT) and operations are set to be continued in 2025.[74]

The Economic Impact of Digital Piracy

Understanding the meaning of digital piracy and its impact on innovators is crucial, but its consequences extend even further. In fact, digital piracy is a global issue due to its far-reaching effects on major economies worldwide.[75] The economic ramifications of piracy go far beyond the conventional effects of theft. One major consequence is the diminished returns on innovation. While discussions persist about striking the right balance in intellectual property (IP) protection to serve both innovators and users, piracy ultimately disadvantages both groups.[76] This highlights the dual impact of online piracy, as it affects governments and their economies globally and leaves consumers financially vulnerable.[77]

Its effects are particularly pronounced in industries that rely on intellectual property, such as music, film, software, publishing, and video games. In the United States alone, the economy suffers an estimated annual loss of $12.5 billion due to sound recording piracy, leading to the elimination of over 71,000 jobs and a reduction of $2.7 billion in earnings across both the sound recording industry and its downstream retail sectors.[78] This loss directly affects not only artists and record labels but

[74] Jordie McCormack, TV ALERT Major warning to homeowners with 'dodgy boxes' amid new rule crackdown as legal notices issued, 17, December 2025
[75] George E Higgins, 'Digital Piracy: An Examination of Low Self-Control and Motivation Using Short-Term Longitudinal Data' (2007)
[76] Frontier Economics:The Economic Impacts of Counterfeiting and Piracy – Report prepared for BASCAP and INTA
[77] INTERPOL: Digital Piracy - Accessing free or cheap content is not the bargain you think it is!
[78] Lawrence Hunter and Stephen Siwek, 'The True Cost of Sound Recording Piracy to the U.S. Economy POLICY REPORT 188' (2007)

also businesses that depend on music distribution, including streaming services, concert venues, and local retailers.

Beyond the music industry, digital piracy has an even broader impact on the entertainment sector. Estimates suggest that the U.S. economy loses between $29.2 billion and $71.0 billion each year due to digital video piracy alone, highlighting the scale of financial damage caused by illegal streaming and downloads.[79]

The rise of video streaming has transformed the entertainment industry, surpassing paid TV subscriptions globally by 2018. With over 500 licensed online video platforms, consumers now have unprecedented access to diverse content, including sports, television series, and movies. This surge in demand has driven rapid innovation, leading to the creation of original content and new ways for audiences to engage with media.

"Video streaming, driven by innovative technologies, has transformed the industry, fueled the U.S. economy, and changed how people around the world consume content. However, digital piracy has emerged as a serious problem that undermines this growth."[80]

The creative and technology industries are at the core of this transformation, which plays a crucial role in sustaining this digital revolution. In the U.S. alone, these industries support up to 2.6 million jobs and generate $229 billion in annual economic benefits.[81]

However, alongside the expansion of legal streaming services, digital piracy has also escalated. Criminal enterprises continuously exploit emerging technologies and shift consumer behaviours,

[79] U.S. Chamber of Commerce Global Innovation Policy Center (GIPC) Impacts of Digital Piracy on the U.S. Economy (June 2019)
[80] Jonathan Weinberger, "U.S. Chamber Study Shows Significant Impact of Digital Piracy on U.S. Economy", 2019.
[81] U.S. Chamber of Commerce Global Innovation Policy Center (GIPC): Impacts of Digital Piracy on the U.S. Economy (June 2019)

posing a significant challenge to intellectual property rights and the legitimate content market. This is a critical issue, as over 80% of piracy is now linked to streaming, making it an urgent concern.[82]

The proliferation of illegal streaming sites and file-sharing platforms further exacerbates this issue, making it increasingly difficult for legal service providers to compete. This affects not just Hollywood studios but also smaller production companies, independent filmmakers, and the thousands of workers involved in content creation, distribution, and marketing.

International treaties and conventions are crucial in tackling the global issue of digital piracy. The World Intellectual Property Organization (WIPO) has played a leading role by creating key agreements such as the *WIPO Copyright Treaty (WCT)* and the *WIPO Performances and Phonograms Treaty (WPPT)*. These treaties establish internationally recognized standards for the protection of copyright in the digital landscape, addressing the unique challenges posed by the internet and digital technologies.[83] By doing so, WIPO aims to create a unified legal framework that enhances international cooperation in combating digital piracy.

In addition, the economies of developing nations are profoundly impacted by digital piracy, resulting in diminished revenue, stunted innovation, and compromised enforcement of intellectual property rights. The unauthorized dissemination of copyrighted materials, including software, music, and films, erodes legitimate enterprises and deters investment in creative sectors.[84]

[82] Ibid.
[83] Summary of the WIPO Copyright Treaty (WCT) (1996); Summary of the WIPO Performances and Phonograms Treaty (WPPT) (1996)
[84] Mark Torous, 'Intellectual Property Rights in the Digital Age: Challenges and Solutions' (Journal of International Business Research, 2024).

A significant consequence of this issue is the decline in tax revenue, resulting from pirated goods evading established economic pathways.[85] Governments face challenges in regulating digital piracy, which adversely affects their capacity to finance public services. Furthermore, piracy deters foreign direct investment (FDI), as corporations are apprehensive about the risk of intellectual property theft, thereby limiting opportunities for economic growth.[86]

International legal instruments, including the WIPO Copyright Treaty (WCT) of 1996 and the TRIPS Agreement of 1994, are designed to safeguard intellectual property rights on a global scale.[87] Article 11 of the WCT requires that legal safeguards be established to prevent the circumvention of technological measures employed by copyright holders,[88] whereas TRIPS establishes baseline standards for the enforcement of copyright. Nevertheless, in numerous developing countries, enforcement is often inadequate due to constraints in resources and regulatory obstacles.

Enhancing intellectual property legislation, refining enforcement strategies, and increasing public awareness represent essential measures for alleviating the economic harm inflicted by digital piracy. By cultivating a culture that encourages the legal consumption of content, developing nations can bolster their creative sectors and promote sustainable economic advancement.

[85] Carsten Fink, Keith E. Maskus, and Yi Qian, 'Economic Effects of Counterfeiting and Piracy: A Review and Implications for Developing Countries' (The World Bank Research Observer, 2016).
[86] K.M. Waziri, 'Intellectual Property Piracy and Counterfeiting in Nigeria: The Impending Economic and Social Conundrum' (Journal of Politics and Law, 2011).
[87] Dinal J, 'The Evolution of International Intellectual Property Instruments for the Protection of Copyright Around the Globe' (International Journal of Law, 2023).
[88] WIPO Copyright Treaty (adopted 20 December 1996, entered into force 6 March 2002) 2186 UNTS 121, art 11.

The Connection Between Digital Piracy and Criminal Activity

To fully grasp the connection between digital piracy and crime, examining it from two key perspectives is essential. First, digital piracy is a crime in its own right, yet legal loopholes and enforcement challenges make it difficult to combat effectively. The complexity of digital spaces and jurisdictional issues further complicate efforts to regulate and penalise piracy.

Second, digital piracy often funds larger criminal enterprises. Criminal organizations frequently exploit illegal streaming platforms and unauthorised music redistribution sites to generate revenue, which they then use to finance activities such as fraud, human trafficking, and money laundering.

While those engaged in digital piracy may perceive it differently, existing literature consistently defines digital piracy as an act of theft.[89] The issue of piracy existed long before the digital age, as the unauthorised use of another's work has always been a concern.[90] However, with the rise of the internet acting as a catalyst, piracy has escalated at an unprecedented rate. As a result, it continues to be recognised by some as theft—a criminal offence in nearly every country worldwide. It is important to recognize that while there is broad agreement on the ethical issues surrounding digital piracy, opinions diverge on when it constitutes a crime and how it should be regulated. This leaves the need to assess the relevant stakeholders in this regard and ascertain what the consensus is on the subject.

Aside from the theft, there is also the factor of the dangers that these websites and illegal forums present to consumers all over the world. Pirated websites are the most common source of digital piracy, often exposing users to hidden malware. These sites provide multiple download options, some

[89] Benjamin Tan, 'Understanding Consumer Ethical Decision Making with Respect to Purchase of Pirated Software' (2002)
[90] Thomas Holt: Digital Piracy

of which contain legitimate content, malware, or a combination of both. Unaware of the risks, users may inadvertently download malicious software, as it is embedded within the site's framework and installed automatically upon clicking. In addition to malware threats, these platforms also expose users to phishing attacks and intrusive adware, posing significant risks, particularly to underage visitors.[91]

At first glance, digital piracy may seem harmless, but it is often linked to organised crime. The profits from pirate sites can fund serious illegal activities such as online gambling, human trafficking, drug trade, arms smuggling, and money laundering. By opting for low-cost pirated services or devices, consumers may unknowingly support these criminal enterprises. These organisations exploit anonymous payment methods and intricate distribution networks to mask their operations, making it challenging for law enforcement to track and prosecute them.[92] The high profitability and relatively low risk associated with digital piracy make it an attractive venture for criminal organisations. For instance, a study highlights that film piracy offers profit margins greater than those of illegal narcotics, with some terrorist groups utilising the proceeds to finance their activities.[93]

The Role of Emerging Technologies in Digital Piracy and IP Protection

Since the inception of media, digital piracy has plagued the entertainment sector. However, its current, more digitalized form may be linked to two turning points in technological history: the introduction of videocassette recorders (VCRs) in 1976 and the development of camcorders in 1983. When combined, these technologies gave pirates the ability to capture the premieres of films, television series, and other media and then sell the video to fans who wanted to see their favorite franchises before others did, or even before the media was released. Piracy had become such a hot

[91] Thomas Holt: Digital Piracy
[92] INTERPOL: Digital Piracy - Accessing free or cheap content is not the bargain you think it is!
[93] Gregory F Treverton and others, 'Film Piracy and Its Connection to Organized Crime and Terrorism', 2009

topic by 1984 that the Supreme Court intervened, issuing one of its most contentious rulings in copyright law history in what has come to be known as the Sony Case.[94] In essence, the law protected viewers who recorded shows to watch at a later time—a practice the court summed up as "fair use" for "time-shifting." As more and more pirates discovered flaws in fair use and time-shifting, the Sony Case introduced a gray area into American copyright and distribution law that continues to plague the media industry.

In the music industry, piracy became a widespread issue when MP3s arrived in the late 1980s, as this new technology allowed users to compress and share music data with more ease than ever before.[95] The music fan could now simply make file copies of their favorite songs, burn them to a disc and sell it to others. By 1999, however, the process of CD burning had migrated online, coalescing into massive networks of media files where users could share and download music for free in peer-to-peer ways.[96] The most famous of these services, of course, was Napster.

Napster, founded in 1999 by Shawn Fanning and Sean Parker, began as a general P2P file sharing service but eventually evolved into the go-to music downloading platform for fans seeking free, shareable music.[97] However, the dream did not last long. The metal band Metallica sued Napster in 2000 after discovering that one of their songs had been moving across the network before it was released, kicking off years of litigation involving digitized music piracy.[98] Metallica would defeat Napster, but the fight against digital piracy was far from over. Today, more than ⅓ of music listeners

[94] Bruce E. Boyden, The Most Important Supreme Court Case in Copyright Law: Sony Corp. v. Universal City Studios (1984).
[95] Neil W. Perry and Aram Sinnreich, 'Global Music Piracy' (Oxford Research Encyclopedia of Communication, 15 September 2022).
[96] Miguel Gallego, 'How the MP3 Accidentally Destroyed the Music Industry' (Reverb, 18 April 2017).
[97] David Kusek and Gerd Leonhard, 'The Future of Music: Manifesto for the Digital Music Revolution' (Berklee Press, 2023).
[98] Jonathan Bailey, '20 Years Later: Metallica v. Napster, Inc.' (Plagiarism Today, 13 April 2020).

still use illegal downloads and stream ripping to pirate music.[99] It is evident that the music industry still lacks a fully convincing defense.

Currently, companies combat digital piracy in a variety of ways. When it comes to media such as television shows and movies, studios have relied on copyrights, patents, and user agreements to establish a legal foundation for their businesses. In these cases, the user is simply referred to as a user rather than an owner; the agreement includes a variety of user rights. To improve security in software, many tech companies rely not only on user agreements, copyrights, and patents, but also on product keys, tamper-proof mechanisms, watermarking, and other methods. Despite all of these security features, digital piracy remains a massive, seemingly unsolvable problem for almost everyone, costing billions of dollars in revenue and resulting in 230,000 to 560,000 job losses each year.[100] In 2020 alone, there were over 130 billion visits to piracy websites, with the United States, Russia, and China accounting for the majority.[101] How, then, can we begin to permanently combat digital piracy? The solution lies in Web3 and blockchain's unique transparency and security features.

Furthermore, many Web3 companies are already developing their own content protection systems that incorporate DLT to provide even greater security than before. For example, Zama provides an open-source homomorphic inference solution that aims to bring end-to-end encryption to AI.[102] Content blockchains, such as ELUV.IO, are developing decentralized DRMs that enable creators and their communities to store, stream, mint, ticket, and trade any content experience on the blockchain, including live channels, films, digital albums, ebooks, collectibles, and the metaverse.

[99]Dataprot, Piracy Is Back: Piracy Statistics for 2024, (Dataprot, 2024).
[100]The Economic Impact of Online Piracy' (Journal of Digital Commerce, 2023)..
[101] Bernstein.io - Blockchain for Intellectual Property' (Bernstein.io, 2025).
[102] Zama's Fully Homomorphic Encryption Solutions for AI' (Journal of Cryptographic Research, 2023).

ConsenSys is creating a royalty NFT called Bootleg that is outfitted with the dONT protocol, which functions as a kind of digital watermark and disincentives token holders from embedding the video with non-token holders.[103] Blockchain's transparency also makes it possible to perform excellent multimedia fingerprinting because of its highly recordable, peer-to-peer, and tamper-proof technology.

Blockchain's exceptional ability to demonstrate asset ownership and copyright protection also makes it possible for new ownership verification models. Think about the film industry. Currently, it is extremely difficult for movie studios and production companies to establish adequate copyright protection. Shady contract deals, also known as Hollywood accounting, are frequently used to steal or mishandle intellectual property. Blockchain technology can address this issue by allowing creators of ideas to register their intellectual property on-chain, resulting in a permanent record of ownership of the asset, whether it is a script, a story, a plotline, a character, or another creative entity. Smart contracts could delegate these registrations while also establishing access and ownership of certain creative rights.

The Simplification of Copyright Law and Fair Use Policies Through Blockchain

Currently, copyright laws provide holders with what is known as a "bundle of rights," which is a collection of complex rules and legalities maintained by the copyright. Although these bundles do offer protection for creators, their own complexity frequently detracts from their usefulness. It frequently happens that several parties may own and transfer the same individual right, creating a complex web of transactions that does not preserve the original rights. Rather, these situations frequently depend on a convoluted procedure known as registration.

[103] 'Bootleg: A new “shared royalty” token aims to reconnect artists with fans' (Decrypt, 2025).

The online news outlet Fourth Estate filed a lawsuit against Wall-Street.com in 2019, alleging that the defendant had kept showing Fourth Estate's content after terminating a license agreement. Wall-Street.com attempted to have Fourth Estate's case dismissed by arguing that they were still able to display their content because of a pending copyright registration. The Supreme Court finally heard the case and ruled in favor of Wall-Street.com, confirming the legitimacy of copyright registration. The case provides a clear window into the murky waters of content and intellectual property ownership rights. The distributed, peer-to-peer architecture of blockchain technology can simplify the complex webs of copyright regulations and make it simple for content producers to transfer, acquire, and view rights. How would this operate? To begin with, a single blockchain can serve as a registry for intellectual property, allowing owners to safeguard rights and conditions using digitally hashed security measures. Subsequently, property owners could create clear usage guidelines, invite people to visit, or even grant access or use.

Bernstein.io, a Web3-based intellectual property management company, provides a similar service, allowing users to create a digital trail of property details using the Bitcoin blockchain and national timestamping authorities.[104] Bernstein.io allows creators to register any digital asset, regardless of size, to prove its existence, ownership, and development. The entire system eventually produces an online registry that employs a distinct cryptographic layer to ensure privacy and give users complete control over their intellectual property. Decentralized programs like Bernstein are laying the groundwork for a more equitable copyright ecosystem.

[104] Frontier Economics:The Economic Impacts of Counterfeiting and Piracy – Report prepared for BASCAP and INTA.

Traditional distribution systems are made up of numerous components such as supply chain, logistics, insurance, packaging, payments, vendors, and so on. A musician who wants to physically release a new album, for example, must navigate a complex web of different areas within a distribution network, from negotiating packaging deals to analyzing insurance contracts to working with vendors. Furthermore, in recent years, many creators and businesses have expressed concerns about a lack of visibility during the distribution process, with only 6% of companies reporting full visibility on their supply chain by 2022.[105] Modern distribution systems, by virtue of their own shadowy complexities, contribute to piracy-friendly environments; pirates can redirect supply, create bootlegs, infringe on copyrights, and engage in other illegal forms of fraud throughout the distribution chain. The pharmaceutical industry, for example, estimates $200 billion in annual losses due to counterfeit drugs infiltrating supply chains.[106] Not only must creators navigate a complex distribution system with too many cogs, but they are also unable to gain a clear understanding of the process itself. Today, distribution is too complicated and prone to errors—but blockchain can help. Creators can more easily navigate the distribution process and trace the paths of their products' journeys thanks to DLTs' consensus-driven mechanisms.

Perhaps the most well-known application of blockchain technology in distribution in recent years has been Walmart's collaboration with Hyperledger to track food safety. To better track food-borne disease outbreaks, Walmart developed a Hyperledger Fabric-based food traceability system.[107] The project was a success, as Walmart was able to trace the origins of over 25 products from five different suppliers at unprecedented speeds. Hyperledger's DLT provided Walmart with complete

[105] Stephan L. K. Freichel and Johannes K. Wörtge, 'Challenges of Supply Chain Visibility in Distribution Logistics – A Literature Review' (2022) University of Applied Sciences Cologne.
[106] 'Global loss of new drugs due to counterfeit market by scenario 2020' (Statista, 10 December 2020).
[107] 'How Walmart brought unprecedented transparency to the food supply chain with Hyperledger Fabric' (LF Decentralized Trust, 2025).

visibility into its supply chain and distribution channels, eliminating the convoluted networks associated with distribution. Consider how that same transparency could be used to improve the security of content distribution.

WIPO and the Protection of Digital Rights Management (DRM)

Digital Rights Management (DRM) is an umbrella term for all technologies used by copyright owners to restrict or allow access to copyrighted works, whether they are embodied in physical media such as **CDs** or communicated digitally.[108] DRM is a broad term that refers to systems that use technology to control access to copyrighted works.[109] It is a type of access control technology used by hardware manufacturers and copyright holders to restrict the use of digital content and devices after purchase. **DRM** typically protects intellectual property by encrypting data so that only authorized users can access it, or by using a digital watermark to identify copyrighted content.

DRM is frequently confused with **Technological Protection Measures** (TPM) and **Rights Management Information** (RMI), which are merely components of DRM. TPMs are technological tools installed by copyright holders to control access to digital works. TPM circumvention is analogous to breaking and entering in order to obtain a copy of a work. RMI includes information such as the work's title, author's name, rights holder information, terms and conditions of use, and other identifiers.[110] It assists copyright holders in tracking and proving infringement, but it is not a user identification tool. TPM and RMI work together to control and restrict the use of digital content, forming an integral part of the DRM system.

[108] DRM and other Implications of the Copyright (Amendment) Bill.
[109] DRM and other Implications of the Copyright (Amendment) Bill.
[110] Pamela Samuelson, 'Digital Rights Management and the Law' (Communications of the ACM, 2003).

Modern technology allows for digital rights management, with online contracts governing the terms and conditions of use. Some copyright holders even embed contractual terms in digital copies to avoid detection of violations. RMIs are frequently in the form of electronic watermarks embedded in protected content, which can be either an integral part of the work or stored separately and linked at the point of access. Effective DRM enables distributors to transmit encrypted electronic content such as books, music, images, and videos.[111] Access to protected content in online environments is typically controlled by user identification procedures such as usernames and passwords. Individual access keys are frequently distributed to users, limiting access to the specific user while restricting other users.

The Content Scrambling System (CSS), which is used on DVDs, is an early example of a digital rights management system.[112] Another example is Apple's FAIRPLAY DRM, which was used by the iTunes Store until 2009 to limit the use of music files to Apple devices.[113] Today's ebook formats use DRM techniques to limit e-book copying, sharing, and printing, with Adobe Digital Editions software being a pioneer in this field. The primary goal of all DRM technologies is to prevent unauthorized use of copyrighted material, thus protecting the copyright holder's rights.[114]

Despite its utility, DRM remains a contentious issue. Advocates argue that DRM protects the integrity of creative works and authors' rights, whereas critics claim that DRM over restricts users

[111] Timothy K. Armstrong, 'Digital Rights Management and the Process of Fair Use' *Harvard Journal of Law & Technology,* Fall 2006.
[112] Edward W. Felten, 'A Skeptical View of DRM and Fair Use' (Communications of the ACM, 2003).
[113] Olufunmilayo Arewa, 'Is Apple Playing Fair? Navigating the iPod FairPlay DRM Controversy' *Northwestern Journal of Technology and Intellectual Property, 2007*.
[114] Tassilo Pellegrini, 'Digital Rights Management – Technologies, Application Areas, and Governance' (Handbook of Media and Communication Economics, 6 November 2023).

and alienates them from works through the use of digital locks. Intellectual property rules must evolve to reflect the realities of the digital age, balancing the interests of copyright holders and users. Legal remedies, combined with technological protection measures, can help achieve this balance. However, DRM alone is not a permanent solution because circumvention techniques evolve. This necessitates extraordinary legal safeguards for DRM itself, resulting in a double layer of protection—one for the DRM system and another for the copyrighted material. In recent years, both national and international legal instruments have emerged to standardize intellectual property protection in the digital age.

The international framework for intellectual property protection in the digital environment is based on two WIPO internet treaties: the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty, both of which were adopted in 1996. During the development of WCT and WPPT, it was realized that "the solution to the machine's problems is in the machine."[115] This response consists of technological protection measures such as copyrighted material encryption and electronic rights management information or digital identifiers, which are collectively referred to as DRM in the treaties. Article 11 of the WCT requires contracting parties to provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures used voluntarily by the authors in connection with the exercise of their rights, as well as to restrict acts in respect of their performances or phonograms that are not authorized by the performers or producers of phonograms concerned or permitted by law.

[115] Silke von Lewinski, 'The WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT) of 1996' (Oxford University Press, 2008).

The WIPO Performances and Phonograms Treaty declares the same in Article 18.[116] Article 12 of the WCT protects RMI and directs the parties to provide an effective legal remedy in the event of intentional tampering or alteration of the right management information. The Treaty also defines the term "Rights Management Information" as "information that identifies the work, the author of the work, the owner of any right in the work, or information about the terms and conditions of use of the work, and any numbers or codes that represent such information, when any of these items of information is attached to a copy of a work or appears in connection with the communication of a work to the public." The TRIPS agreement, which establishes minimum standards of protection for intellectual property rights, makes no mention of the protection of DRM design, so Article 11 and Article 12 of the WCT are intended to provide TRIPS plus protection to the parties. The WIPO Internet Treaties call for the establishment of a legal framework to protect technological means of control over access or circumvention by third parties for uses that are not authorized by the copyright holder. The language used in Article 11 of the WCT is ambiguous and likely to cause confusion.

To be protected under Section 11 of the WCT, the TPMs must be effective. The term "effective" in this article does not imply that technological measures that can be circumvented are ineffective, as such a construction is absurd, and the purpose of this Article is to protect anti-circumvention techniques. The term "effective" in Art 11 should be interpreted to mean some specific information or process required for gaining access to the work protected by it, and/or for carrying out an act covered by copyright protection, and that such information, process, or treatment may only be made available with the permission of the copyright owner.[117] Thus, technological protection measures are

[116] WIPO Performances and Phonograms Treaty (adopted 20 December 1996, entered into force 20 May 2002) 2186 UNTS 203, art 18.
[117] US DMCA, s 1201(a) (3) (B).

effective when they can control the use of a protected work by employing any access control or protection process such as encryption, scrambling, or any other work transformation or copy control mechanism that can achieve the protection goal.[118]

Furthermore, several nations argue that not only circumvention, but also circumvention-related activities such as preparation for circumvention, should be regulated under this section.[119] Individuals primarily circumvent laws in their homes, making it difficult for enforcement agencies to provide effective legal remedies all of the time. Given the complexity of the technology involved in TPM circumvention, it is only possible after acquiring the necessary circumvention devices or services, which typically occur outside of the private sphere in special markets. It is possible for governments to regulate these markets, thereby limiting the supply line of circumvention devices and software and fulfilling the obligations under WCT. As a result, while developing their DRM legislation, WCT parties should include a regulatory mechanism for controlling and restricting the preparatory activities that lead to circumvention acts. As previously stated, there is concern that the use of TPMs may make it difficult to access copyrighted works. However, it is noted that parties may impose fair use limitations for circumventing TPM by invoking Article 10 of the WCT when drafting domestic legislation.[120]

Discussions for Improvement

Improvements to DRM's right protection capability should not be limited to how to eliminate violations. Any improvements must take into account the needs of the content's users. In practice, effective DRM protection can be achieved by controlling piracy, ensuring fair use, and protecting the

[118] The European Union Copyright Directive, Article 6(3).
[119] Jia Wang, 'Anti-Circumvention Rules in the Information Network Environment in the US, UK and China: A Comparative Study' (SSRN, 15 January 2008).
[120] The WCT, Article 10(1).

user's privacy. In terms of user privacy, personal information must be properly managed. DRM systems should collect and store data only as much as is necessary for rights enforcement. Furthermore, to increase users' acceptance of DRM technology, users should be given adequate information about when their consumption patterns are collected, who receives such information, and the level of security of the information.

Any DRM system improvement should strike a balance between the needs of users and content providers. The former prefers a DRM system that can handle the majority of fair use scenarios, protects user data, does not monitor DRM data usage, allows for rights transfers, and is adaptable to the media/situation. The latter prefer DRM systems that can monitor illegal use of DRM-enabled media, collect revenue from the use of their works, create a secure distribution channel, and prevent illegal use of their works. Technologically, the improvements should focus on three major schemes: digital piracy control, content usage control, and user privacy protection. A balanced consideration of these schemes results in an equal protection of content providers' rights and users' privacy. As a result, combining these three schemes helps to develop a privacy-aware DRM system.

A piracy control scheme is primarily intended to prevent illegal access, copying, and distribution of protected content, allowing only authorized parties to carry out these actions legitimately. However, when violations occur, the scheme must also be able to identify the perpetrators. Encryption, watermarking, and traitor tracing are likely to be used as anti-piracy measures. Encryption scrambles content with secret keys. Because attackers can reverse-engineer to obtain the key, the effectiveness of this method is dependent on the strength of the obfuscation of the stored keys. When a violation is detected, watermarking embeds marks into the content as evidence of

ownership. However, this is a passive approach to combating piracy. Watermarking should be optimized to provide active protection, such as preventing illegal copying. Traitor tracing is a method for determining the source of a violation by identifying a decryption key that is unique to each user in a content distribution system. The tracing mechanism must be effective, as legitimate users may act as traitors.

A usage control scheme is primarily concerned with how content is used once it reaches the end user. The control affects not only who has access to which content, but also how that content is used or distributed afterward. The scheme is implemented by enforcing restrictions and usage rules on the content to ensure that users follow the usage rights granted to them. However, enforcing a content usage rule frequently violates a user's privacy. As a result, enforcing restrictions while maintaining privacy should be a top priority in any improved system.

Minimizing personal data acquisition can help protect users' privacy. Anonymous transactions can support this approach. Anonymity can enhance users' privacy protection, improving user satisfaction and resulting in a successful system. However, protecting content provider rights in this transaction must be considered, specifically how to control piracy that a dishonest user may commit.

VI. Conclusion

Digital piracy is a pervasive cancer that undermines the creative efforts of authors and creators. By exploiting the works of others, perpetrators enrich themselves at the expense of rightful owners, diverting focus from the original creators and distributing content in unauthorized locations. The

repercussions of these actions are far-reaching, encompassing economic harm, a decline in creativity, and diminished trust in Intellectual Property Laws.

This underscores the urgent need for a long-lasting solution to the problem of digital piracy. Member States must transcend existing approaches and devise innovative strategies that are both effective in our increasingly interconnected digital age and resistant to circumvention. Such efforts will not only protect the rights of creators but also preserve the integrity and trust in intellectual property systems globally.

VII. Further Research

- What is the role of governments and international organizations like WIPO in combating digital piracy in an increasingly interconnected world?
- What is the importance of content creator-focused approaches in addressing digital piracy, and how can WIPO ensure that creators' rights are upheld?
- How can technological advancements, such as blockchain and AI, be leveraged by governments and organizations to protect against piracy?
- What are the underlying motivations behind digital piracy, including access inequality, economic factors, and public perceptions of intellectual property rights?

VIII. Annotated Bibliography

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significant job losses, reduced earnings for American workers, and substantial tax revenue shortfalls. The findings underscore the broader economic consequences of music piracy beyond industry losses.

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Topic Two: The Role of WIPO in Resolving Cross-Border IP Disputes

I. Quote

"*The increase of intangible assets being protected worldwide is certainly a welcoming and reassuring sign that innovation is at the forefront in various industry sectors.*

- *Moser*[121]

II. Introduction

In an increasingly interconnected world, intellectual property (IP) has become a cornerstone of innovation, creativity, and economic development. From patents protecting groundbreaking inventions to trademarks distinguishing global brands, and copyrights safeguarding artistic works, IP rights play a critical role in shaping the modern economy.

However, as businesses and individuals increasingly operate on a global scale, the challenges surrounding IP protection and enforcement have grown significantly. Cross-border IP disputes have become a common feature of the global economy, as conflicting national laws, jurisdictional limitations, and cultural differences come into play.

The complexity of cross-border IP disputes arises from the inherently territorial nature of IP rights. While an IP right grants exclusive use in one jurisdiction, the same right may face challenges or limitations in another. For example, a company might hold a patent in one country but find that the

[121] WIPO: Resolving Cross-Border Patent Disputes Through Mediation And Arbitration available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3271183.

same technology is freely exploited in another due to differences in patent laws or enforcement standards. Resolving such disputes requires a nuanced understanding of both national laws and the overarching principles of international law.

The World Intellectual Property Organization (WIPO), a specialised agency of the United Nations, plays a pivotal role in resolving cross-border IP disputes. Established in 1967, WIPO is dedicated to fostering the protection of IP rights worldwide and ensuring their contribution to economic and cultural development. One of the standout features of WIPO's role in this area is its Arbitration and Mediation Centre, which offers Alternative Dispute Resolution (ADR) mechanisms tailored to the unique demands of IP conflicts. These include mediation, arbitration, and expert determination, designed to provide cost-effective, neutral, and time-efficient solutions.

Moreover, WIPO plays a significant role in harmonising IP laws and fostering international cooperation. Its efforts go beyond dispute resolution, extending to capacity building, technical assistance, and policy development aimed at creating a more unified global IP system. Through its ADR mechanisms and broader initiatives, WIPO has become an indispensable player in ensuring that IP rights are respected and disputes are resolved amicably, regardless of the geographical or legal complexities involved.

III. Definition of Key Terms

Intellectual Property (IP): refers to creations of the mind, such as inventions, literary and artistic works, designs, and symbols, names, and images used in commerce. IP is protected in law by, for example, patents, copyrights, and trademarks, which enable people to earn recognition or financial benefit from what they invent or create. By striking the right balance between the interests of

innovators and the wider public interest, the IP system aims to foster an environment in which creativity and innovation can flourish.

Industrial Revolution: An industrial revolution is a period of rapid economic and technological advancement that transforms society. Currently we are on the Fourth Industrial Revolution which is characterised by newer technology such as the Internet of Things (IoT), Artificial Intelligence and Cloud Technology.

Cross-border IP disputes: refer to legal conflicts that arise when intellectual property rights are infringed upon or violated across different countries. With problems such as the cost of patents, though varying from location to location, differences in legal scope, globalization, and counterfeiting arising daily it becomes the responsibility of WIPO to protect these inventions and create frameworks to this effect as well as resolve conflicts when they arise.

IV. International and Regional Framework

The resolution of cross-border intellectual property (IP) disputes relies heavily on a robust international and regional framework. These frameworks are essential for creating a harmonised legal structure that ensures fair treatment of IP rights across jurisdictions, promotes innovation, and reduces conflict.

The Agreement on Trade-Related Aspects of Intellectual Property Rights (1994)[122], known as the TRIPS Agreement or simply TRIPS covers areas of intellectual property such as copyrights and related issues, trademarks, patents, and undisclosed secrets like trade secrets. *Article 1(1)* of the TRIPS agreement compels Member States to implement laws, as they deem fit, pursuant to this

[122] Agreement on Trade-Related Aspects of Intellectual Property Rights (1994) available at https://www.wto.org/english/docs_e/legal_e/27-trips_01_e.htm (last accessed on 4th of February)

provision for the protection of Intellectual property. *Articles 63* and *64* of this provision provide dispute prevention and resolution guidelines for Member States.

The Hague Agreement (1925)[123] governs the international registration of industrial designs, allowing these designs to be protected in multiple regions with minimal formalities. Simplifying the process and providing a more economic means for entrepreneurs, inventors and businesses to protect their intellectual property. *Article 10* of this agreement provides protection strictly in Contracting Parties that are party to the act under which an inventor, creator or business is seeking protection i.e. a part seeking protection under the Hague Act of 1960, would only be provided protection in those Contracting Parties (Member States) that are a party under the act. The Hague agreement provides a bridge to prevent international and cross-border Intellectual Property disputes by providing a means for creators and businesses to protect their intellectual property across several countries at once.[124]

The Berne Convention for the Protection of Literary and Artistic Works (1886)[125] is concerned with the protection of literary and artistic works and the rights of their authors. This convention offers protection for the works for nationals of Contracting States across borders of all other Contracting States. This protection is not limited to nationals of Contracting Parties alone but also extends to nationals of Non-Contracting parties who are domiciled in a Contracting Party State or who have their works published within the territory of a Contracting Party as provided in *Article 3* and *Article*

[123] The Hague Agreement (1925) available at https://www.wipo.int/treaties/en/registration/hague/ (last accessed on the 4th of February)
[124] World Intellectual Property Organization, The Hague System for the International Registration of Industrial Designs https://www.wipo.int/hague/en/ accessed 19 April 2025.
[125] Berne Convention for the Protection of Literary and Artistic Works (1886) available at https://www.wipo.int/treaties/en/ip/berne/ (last accessed on 4th of February)

5(1). Primarily protecting copyrightable works under the laws of Contracting Parties and granting these works right of priority across other Contracting States.

The World Intellectual Property Organisation Copyright Treaty[126] is a special treaty under the *Berne Convention*, concerned with protecting the rights of authors and their works in the digital space. The treaty specifically mentions two subject matters to be protected; computer programmes and compilation of data and other materials that would constitute international property. This treaty aims to protect the expression of ideas and not the ideas themselves. *Article 11* of this treaty places an obligation on Contracting Parties to implement legal measures to protect against circumvention of effective technological measures that are used by authors in connection with the exercise of their rights in respect of their works.

WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge[127] which is also known as the WIPO GRATK Treaty (2024) has been created and implemented by Member States in a bid to protect traditional knowledge associated with genetic resources, preventing patents from being erroneously granted. *Article 6* of this treaty imposes an obligation to establish information systems detailing genetic resources and traditional knowledge in consultation with the indigenous people this knowledge is obtained from. A further obligation to protect this knowledge is placed on Contracting Parties in *Article 6(2)* of the treaty. *Article 3(1)* of this treaty places an obligation on Contracting Parties to disclose the country of origin or source of genetic resources relied on for an invention in a patent application.[128]

[126] WIPO Copyright Treaty(1996) available at https://www.wipo.int/wipolex/en/text/295166 (last accessed on the 4th of February)
[127] WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge (2004) available at https://www.wipo.int/treaties/en/ip/gratk/ (last accessed on the 4th of February)

[128] WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge (2004) available at https://www.wipo.int/treaties/en/ip/gratk/ (last accessed on the 4th of February)

*The Singapore Treaty on the Law of Trademarks (2006)*aims to create a flexible and adaptable framework for harmonising trademark registration across borders. It allows for the registration of all kinds of trademarks that can be registered under a Contracting Party's law. *Article 2(a)* states what works are eligible for protection under this provision, such as *"marks relating to goods (trademarks) or services (service marks) or both goods and Services"*. The Treaty includes protection for new innovations concerning trademarks, such as holographic trademark signs and the like. Given the unprecedented growth in technology and the emergence of new concepts across all domains, trademarks require robust protection.

Paris Convention for the Protection of Industrial Property (1883)[129] applies widely to industrial property. *Article 1(2)* of the convention lists works that are eligible for protection under it. *Article 2* goes further to provide that Contracting States provide the same level of protection to nationals of other Contracting parties as they provide to their own Contracting Parties. While this provision does not cut across borders, it provides nationals or inhabitants of contracting states a right of priority, which for patents and utility models is 12 months and for industrial designs and trademarks six months. This provision helps young businesses and inventors protect their inventions across nations more easily.

The International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations (1961)[130], known as the *Rome Convention*. The purpose of this convention is to ensure the protection of performers, producers of phonograms, and broadcast organisations as provided for in, regardless of if they are nationals in Contracting States or not.

[129] Paris Convention for the Protection of Industrial Property (1883) available at https://www.wipo.int/treaties/en/ip/paris/ (last accessed on the 4th of February)

[130] Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations (1961) available at https://www.wipo.int/treaties/en/ip/rome/ (last accessed on the 4th of February)

At the regional level, the *African Intellectual Property Organization (Organisation Africaine de la Propriété Intellectuelle)* established in 1962 creates a framework. It provides for IP registration and protection on behalf of its 17 Member States in West Africa, and is governed by an Administrative Council composed of the responsible ministers from its member states. Although national policy making is within the purview of individual member states, OAPI has a national liaison structure through which it supports the implementation of IP policies in each member state. For example, OAPI provides model laws relating to genetic resources and traditional knowledge, in collaboration with its member states. Once there is consensus on a document, it is submitted to the Administrative Council for approval and translated into regulations that apply as national law in each country, although each is free to add additional measures to meet its specific needs.

V. Role of the International System

Intellectual Property transverses borders by nature. Artistic works, chemical discoveries, technological innovations, and other tangible forms of intellectual property will eventually find their way across the globe. In light of recent developments across sectors such as the fourth industrial revolution, the question of protecting intellectual property across borders has become more controversial. Protecting and safeguarding intellectual property against problems such as cybersquatting, brand imitation, copyright infringement, the right to publicity, and industrial espionage has become a necessity as even reputed brands such as Pfizer, Facebook and Lady Gaga have had their domain names disputed. This sort of protection is consumer forward with the aim of protecting consumers from online scams. The Director of WIPO, Daren Tang, has stated that

mechanisms such as the UDPR(Uniform Domain Name Dispute Resolution Party), is essential in protecting Internet users against online fraud.[131]

In the light of the foregoing, it is imperative that cross-border protection be made available for Intellectual property beyond borders. Central to the international legal architecture for IP dispute resolution is the World Intellectual Property Organization (WIPO), a specialized agency of the United Nations. WIPO's Arbitration and Mediation Center offers alternative dispute resolution (ADR) mechanisms, including mediation, arbitration, expedited arbitration, and expert determination, tailored to the complexities of international IP disputes. As of mid-2022, the WIPO Center has administered over 900 cases involving parties from more than 60 countries, with disputes ranging from patent and trademark issues to copyright and franchising disagreements. Notably, approximately 68% of these cases are international in nature, reflecting the Center's pivotal role in facilitating cross-border IP dispute resolution.[132]

Regional organizations also play a crucial role in harmonizing IP laws and resolving disputes within specific geographical areas. The African Regional Intellectual Property Organization (ARIPO) and the Organisation Africaine de la Propriété Intellectuelle (OAPI) streamline IP registration and enforcement among their member states, reducing legal fragmentation and fostering cooperation. Similarly, the European Patent Office (EPO) provides a centralized patent granting system for European countries, facilitating uniform protection and dispute resolution mechanisms across the continent.

[131] WIPO's Anti-"Cybersquatting" Service Surpasses 50,000 cases amid COVID-19 surge. Available at https://www.wipo.int/pressroom/en/articles/2020/article_0026.html (last accessed on the 19th of April 2025)
[132] Recent Trends in WIPO Arbitration and Mediation" *Global Arbitration Review* (available at: https://globalarbitrationreview.com/guide/the-guide-ip-arbitration/third-edition/article/recent-trends-in-wipo-arbitration-and-mediation) accessed 17 April 2025.

Beyond institutional frameworks, partnerships with NGOs are instrumental in addressing cross-border IP disputes, particularly in developing countries where legal infrastructures may be underdeveloped. Organizations such as Knowledge Ecology International (KEI) advocate for equitable IP policies that balance innovation incentives with public interest, especially in areas like access to medicines. The Global Innovation Policy Center (GIPC) collaborates with governments to enhance IP enforcement capabilities and raise awareness about the importance of IP rights. These NGOs often provide legal assistance, policy recommendations, and capacity-building programs that empower local stakeholders to navigate complex international IP landscapes.

International events and capacity-building workshops further strengthen the global IP dispute resolution ecosystem. WIPO regularly organizes ADR workshops and training sessions to equip IP professionals with the skills necessary to manage cross-border disputes effectively. In the 2015 Seminar "Analysis of national Approaches to PIL Issues in Cross Border Online IP Infringement Disputes," Member States of WIPO discussed transnational online intellectual property infringement, such as online marketing using a registered or unregistered trademark, and the online distribution of copyrighted material. WIPO, through WIPOlex, provides free legal information across all sectors in relation to Intellectual property.[133] These events facilitate knowledge exchange, promote best practices, and foster networks among practitioners, policymakers, and academics. For instance, WIPO's eADR platform offers a secure, online case management tool that enables parties and neutrals to share and access case-related information efficiently, enhancing the transparency and efficiency of ADR proceedings.

[133] The WIPO-lex website https://www.wipo.int/wipolex/en/judgments/results?countryOrg=TZ (last accessed on the 6th of April 2025)

Technological advancements are also reshaping the landscape of cross-border IP dispute resolution. WIPO's eADR platform exemplifies the integration of digital tools into ADR processes, allowing for secure electronic submissions, online hearings, and efficient case management.[134] These innovations are particularly beneficial in cross-border contexts, where logistical challenges and time zone differences can impede traditional dispute resolution methods. By leveraging technology, international systems can enhance accessibility, reduce costs, and expedite the resolution of IP disputes.

Conclusively, WIPO has also put in place the PCT- the International Patent System in a bid to simplify the patenting system and reduce conflict. This system aids applicants who are seeking international patents for their inventions. Applicants, who file for an international patent under the PCT, can simultaneously seek protection in all 158 contracting States to the PCT.[135]

1. Nature of Cross-Border IP Disputes

International IP disputes occur when there is a violation or dispute of IP protection between two or more countries. Such disputes often couple the multinational corporate entities, creation owners, or inventors operating under different legal frameworks. For example, Apple Inc. v. Samsung Electronics is one of the high-profile patent infringement cases concerning the design of smartphones and various technologies across multiple countries, including but not limited to the United States of America, South Korea, and European nations.[136]

[134] World Intellectual Property Organization (WIPO), WIPO Expedited Arbitration Rules, available at https://www.wipo.int/amc/en/eadr/wipoeadr accessed 20 April 2025.
[135] PCT- The International Patent System. Available at https://www.wipo.int/pct/en/. (Last accessed on 2nd of April, 2025)
[136] Muthuswamy, V.V. and Sureshkumar, V., 2023. Navigating Jurisdictional Divergence: Assessing Multidimensional Factors Affecting Enforcement and Compensation in Cross-Border Intellectual Property Violations. International Journal of Criminal Justice Sciences, 18(2), pp.232-258

One of the most contentious matters of controversy in connection to cross-border IP disputes is jurisdiction. The rights are territorial, which implies that they are enforceable predictively in the country or the region in which they are granted. Selecting legitimate jurisdictions for the resolution of disputes is often problematic, particularly where the infringing activities span several jurisdictions. This territorial aspect makes enforcement difficult as courts have to consider national legislation of IPRs as well as international treaties, which often results in conflicting and slow reforms.

However, difficulties do not end there because the legal systems regulating cross-border IP disputes and the ethical traditions widespread in the nations involved vary. For example, protecting copyright for software algorithms might be allowed in one country and prohibited in another. As such, what may amount to trademark dilution under the trademark law of the United States may not necessarily be the same under EU courts. Culturally related perceptions of IP systems also affect implementation; while some legal systems may protect property through a punitive manner to enhance access to knowledge and the public good, tensions arise in global conflicts.

This is further compounded by the role of the digital environment. Territorial divisions have become almost irrelevant with the help of the Internet, and with its help, even copyright protected works, patented technologies, and trademarks can be shared across the globe within minutes. Participants stated that online marketplaces and the use of social media accounts have seen increased cases of IP infringement covering fake products and unauthorized streaming services, among others. Stakeholders face numerous hurdles in monitoring and exercising IP rights in cyberspace, such as the identification of offenders, data protection legislation, intermediaries, Internet Service Providers, platforms, etc.[137]

[137] Muthuswamy, V.V. and Sureshkumar, V., 2023. Navigating Jurisdictional Divergence: Assessing Multidimensional Factors Affecting Enforcement and Compensation in Cross-Border Intellectual Property Violations. *International Journal of Criminal Justice Sciences, 18(2) pp.232-258*

Furthermore, issues of jurisdiction emerge in digital disagreements because the acts of violation can begin in one country, take place in another, and be accessed from everywhere. This interconnectivity makes the global cooperation and synchronization of the laws governing IPRs for effectively dealing with dynamic cross-border IP disputes imperative. Solving these issues requires *comprehension of the specifics of certain jurisdictions, cultural specificities, and innovative technologies to guarantee sufficient IP asset protection in the context of global technological progress and globalization.*

The proliferation of intellectual property assets through business activities increases the emergence of potential legal disputes in multiple jurisdictions. For instance, the pharmaceutical and biotechnology industries are among the most IP-intensive sectors, relying heavily on patents to safeguard drug formulations and proprietary medical technologies. A recent high-profile case illustrating this is *Moderna, Inc. v. Pfizer/BioNTech SE*[138]. In 2022, Moderna filed lawsuits in both the United States and Germany, alleging that Pfizer and BioNTech had infringed on its patented mRNA technology used in the development of COVID-19 vaccines. Moderna claimed that the defendants used its innovations without proper licensing, despite ongoing discussions about IP sharing during the pandemic. This case underscores how global health emergencies and rapid vaccine development have led to IP tensions that transcend national borders. Similarly, with the globalization of brands and digital retail, fashion companies frequently clash over design and trademark rights in courts across the globe. In *Adidas AG v. Thom Browne Inc.*[139]Adidas sued U.S.-based designer Thom Browne in a New York court in 2023, alleging infringement of its iconic three-stripe trademark through Browne's use of a similar four-stripe motif. While the case was litigated in the U.S., the implications extended globally due to both brands' international presence and retail operations.

[138] [2024] EWHC 1695 (Pat)
[139] [2024] EWHC 2990

Also, technology firms frequently encounter cross-border legal challenges due to the widespread nature of software distribution and international hardware supply chains. A ready example is *Sonos Inc. v. Google LLC.*, Sonos, a U.S. audio technology firm, filed lawsuits against Google in multiple jurisdictions, including the United States and Germany, over smart speaker patents. German courts were among the first to deliver rulings favoring Sonos, ordering sales restrictions on infringing Google products. Google later modified the features of its devices globally.

2. WIPO's Role in Creating a Cross-Border Conflict Resolution System

WIPO provides cost-effective, neutral, and internationally recognised mechanisms for resolving IP disputes. The WIPO Arbitration and Mediation Centre, established in 1994, offers services to resolve disputes outside traditional courts. The Centre is an independent and impartial body that forms part of WIPO, a specialised agency of the UN dedicated to developing a balanced and accessible international intellectual property (IP) system.

The WIPO Centre is particularly recognised for the administration of international IP, technology, and entertainment disputes involving private parties and is the leading institution in solving domain name disputes. At the time of writing, the Centre has administered 530 mediation and arbitration cases[140] filed by large companies, small and medium-sized enterprises, research organisations, and universities.

It is important to highlight that in some 40 percent of the mediation, expedited arbitration and arbitration cases filed with the WIPO Centre, the parties used an escalation clause providing for WIPO mediation followed by WIPO expedited arbitration or WIPO arbitration[141]. The WIPO Centre

[140] WIPO Mediation Case Examples are available at [http://www.wipo.int/amc/en/mediation/case-example. html]; and WIPO Arbitration Case Examples [http://www.wipo. int/amc/en/arbitration/case-example.html].
[141] WIPO Caseload Summary[http://www. wipo.int/amc/en/center/caseload.html].

administered mediations, arbitrations, and expedited arbitrations involving a range of issues such as patent infringement, patent licences, patent pools, information technology (IT) transactions (including telecommunications), distribution agreements for pharmaceutical and consumer products, copyright issues, research and development (R&D) agreements, trademark coexistence agreements, art marketing, artistic production, media-related agreements, joint venture agreements and cases arising out of agreements in settlement of prior multi-jurisdictional IP litigation.

However, the WIPO rules can be used for the resolution of all commercial disputes, including those not involving intellectual property. To date, 30 percent of cases filed with the WIPO Centre involved patent-related issues, followed by IT and telecommunication disputes (29 percent), trademarks (19 percent), and commercial disputes (15 percent).

The WIPO Centre maintains a database[142] of more than 1,500 neutrals, including arbitrators, mediators, and experts from more than 70 countries. These neutrals have dispute resolution experience and expertise in IP and technology, life sciences, entertainment, and other areas from which IP disputes arise.

3. The Growing Importance of IP in Government Policies

In this context, it is important for governments to align their innovation and economic development policies with IP considerations. This includes policies which encourage research and development, initiatives for Small and Medium Scale Enterein high-growth sectors of the economy, measures to facilitate commercialisation and technology transfer, and incentives to facilitate domestic innovation and foster business growth and export, to name a few.

[142] There is no public list of WIPO neutrals. However, the WIPO Center has a public list of panelists who decide domain name cases, which is available at [http://www.wipo.int/amc/en/ domains/panel/panelists.html] accessed?

Furthermore, cultural policies have IP dimensions that encourage cultural and creative expression and protect the rights of creators, particularly in the digital age. A few countries have combined all IP-related entities and their responsibilities under one overall ministerial-level organisation to address the challenges of inter-ministerial coordination and the diffusion of IP-related responsibilities and policies. Doing so also elevates the importance of intellectual property in the government hierarchy.

For example, in Saudi Arabia, SAIP is responsible for administering all IP rights, including patents, trademarks, industrial designs, geographical indications, copyright, plant varieties, and integrated circuits. It also oversees IP legislation, regulations, and policies and contributes to IP enforcement and creation.

Similarly, in India, under the National IPR Policy of 2016, all IP agencies were merged within the Ministry of Commerce and Industry (except for plant varieties, which remained with the Department of Agriculture). This single-agency approach improved coordination

In recognition of the growing importance of IP as a policy tool, many countries undertake public awareness campaigns and educational initiatives to enhance the understanding of IP rights and foster a culture of respect for IP. Educating the public, businesses and creators about the importance of IP protection and its role in driving innovation and economic growth can help to exploit its benefits, but also address infringement and misuse.

A natural focus of most countries is to strengthen domestic IP creation. However, governments are increasingly aware that their national IP system must not only facilitate domestic innovation but also foster global commercialisation. In this context, countries are looking to align their national IP system with those of their major trading partners and global IP trends. On a practical level, accession

to international IP treaties such as the Madrid Agreement for the international registration of trademarks can facilitate companies' access to foreign markets and protection of IP rights.

4. Challenges in Resolving Cross-Border IP Disputes

Despite WIPO's successes, several challenges persist such as jurisdictional conflicts as each nation applies its IP laws differently, leading to inconsistencies in judgments and enforcement. Cross-border intellectual property (IP) disputes pose significant challenges in today's globalised world. With the increasing globalisation of businesses and the digital economy, protecting and enforcing IP rights across borders has become more complex. Some of these challenges includes:

a. **Differences in Legal Systems and Intellectual Property Laws**: Cross-border IP disputes present several challenges due to differences in legal systems and intellectual property laws. Each country has its own set of laws and regulations governing intellectual property, which can vary significantly. These differences can make it difficult to navigate the legal landscape and understand the rights and protections available in each jurisdiction. It can also lead to conflicting interpretations of intellectual property rights, making it challenging to resolve disputes in a fair and consistent manner.

b**. Language and Cultural Barriers**: Language and cultural barriers add another layer of complexity to cross-border IP disputes. Communication is essential in any legal proceeding, and when parties speak different languages or come from different cultural backgrounds, it can hinder effective communication and understanding. Misinterpretation of legal terms or cultural nuances can further complicate the dispute resolution process and make it harder to arrive at a mutually agreeable solution.

c. **Enforcement and Jurisdictional Issues**: Enforcement and jurisdictional issues pose significant challenges in cross-border IP disputes. Gaining a favorable judgment sometimes may prove hard to execute across different territories. Compliance is usually hampered by incongruities in enforcement arrangements and legal cultures between countries. For instance, while suing for injunctions or damages in certain jurisdictions may entitle the plaintiff to this in another, this may not necessarily help much, especially in countries with a relatively weak IP protection system.[143] Also, different countries have different enforcement mechanisms and procedures, and obtaining recognition and enforcement of a foreign judgment can be a lengthy and costly process. Additionally, determining the appropriate jurisdiction for a cross-border IP dispute can be complex, as parties may have connections to multiple jurisdictions, and determining which court has the authority to hear the case can be contentious.

d. **Cost Implications:** International IP litigation is generally very costly. Lawyers become expensive because it may be mandatory to use the legal services of different jurisdictions, complicated procedures, and litigations. SMEs are usually at a higher risk because they may be unable to fund their claims to protect or enforce their IP rights in the international market while large firms withdraw claims.

5. Emerging Trends and Future Directions

The rise of AI has introduced complex challenges to the realm of IP, particularly regarding ownership, infringement, and enforcement. AI systems are increasingly capable of creating innovative works—from generating music and art to designing pharmaceuticals—raising questions about authorship and patentability. In cross-border contexts, disputes often arise when IP laws differ

[143] Chiang, E.P., 'Determinants of Cross‐Border Intellectual Property Rights Enforcement: The Role of Trade Sanctions' (2004) *Southern Economic Journal*, 71(2), pp.424-440

significantly between jurisdictions. For instance, while some nations recognise AI as a contributor to intellectual creations, others require human authorship for copyright or patent eligibility. These discrepancies create fertile ground for disputes over ownership and licensing rights.

Moreover, AI's role in identifying IP violations adds another layer of complexity. Machine learning algorithms can detect potential infringements across borders, but their reliance on data—which may itself be protected under differing IP regimes—complicates enforcement mechanisms. As AI continues to integrate into various industries, harmonising global IP frameworks to address these nuances is becoming an urgent priority.

Blockchain's decentralised nature offers transformative potential for IP management and dispute resolution. By creating immutable ledgers for IP registrations, blockchain can help establish clear records of ownership and licensing agreements. This is particularly beneficial in cross-border contexts, where jurisdictional overlaps often lead to conflicts over the validity and enforceability of IP rights. However, blockchain also introduces new challenges. Smart contracts, which automate licensing and royalty payments, often operate outside traditional legal frameworks, raising questions about their enforceability across jurisdictions.

Additionally, the pseudonymous nature of blockchain transactions can complicate efforts to trace infringers or enforce rights against unauthorised use of protected works. Future directions in this area will likely focus on creating interoperable standards for blockchain-based IP systems and resolving jurisdictional uncertainties.

As the global community rallies to combat climate change, innovation in renewable energy, carbon capture, and sustainable agriculture has surged. These advancements are often protected by patents and trade secrets, making IP rights central to incentivising innovation. However, the cross-border

nature of climate challenges necessitates collaboration between nations, often leading to disputes over access to and use of green technologies.

Developing nations, in particular, frequently advocate for compulsory licensing or technology transfer agreements to address climate needs, which can clash with the interests of IP holders in developed countries. For instance, disagreements over licensing fees or patent restrictions can stall the deployment of critical technologies

As technological and climate-related innovations increasingly operate across borders, harmonising IP laws and enforcement mechanisms, integration of technology in IP enforcement will be crucial. Governments, international organizations, and private entities must collaborate to address the dual imperatives of protecting IP and ensuring equitable access to innovations. Initiatives such as WIPO GREEN—a platform for sharing climate technologies—highlight the potential of such partnerships.

VI. Conclusion

In an increasingly interconnected world, intellectual property (IP) plays a significant role in innovation, economic growth, and cultural development. However, the territorial nature of IP rights presents significant challenges in a globalised economy, where cross-border disputes are becoming more frequent and complex. These disputes often arise from variations in national IP laws, jurisdictional inconsistencies, and the rapid pace of technological advancements, all of which require specialised mechanisms for resolution.

The World Intellectual Property Organization (WIPO) has proven to be a pivotal force in addressing these challenges. Through its Arbitration and Mediation Center, WIPO offers cost-effective and neutral dispute resolution mechanisms tailored to the unique demands of IP conflicts. These services

provide an alternative to traditional litigation, allowing parties to resolve their disputes more efficiently and with greater flexibility. Beyond dispute resolution, WIPO plays a critical role in harmonising IP laws, fostering international cooperation, and building the capacity of countries to manage and protect IP rights effectively.

Despite its successes, WIPO faces persistent challenges that demand continuous innovation and adaptability. Jurisdictional conflicts, where IP rights are treated differently across borders, remain a significant obstacle to achieving consistent and enforceable outcomes. The enforcement of arbitration awards can also vary widely, and economic disparities among nations often create an uneven playing field for smaller or less developed economies. These issues are further compounded by the emergence of new technologies, such as artificial intelligence and blockchain, which introduce novel IP considerations that existing frameworks may not fully address.

VII. Further Research

What strategic recommendations can strengthen WIPO's role in fostering global intellectual property innovation and collaboration?

How can WIPO leverage technology to reduce costs for dispute resolution?

How should IP policies evolve to address future technological advancements?

What role does intellectual property play in achieving the UN's Sustainable Development Goals (SDGs)?

VIII. Annotated Bibliography

World Intellectual Property Organization. (2023). International Treaties and Conventions. https://www.wipo.int/treaties/en/ - accessed on 20th January 2025

This webpage provides a comprehensive overview of international treaties managed by WIPO, such as the Berne Convention and the TRIPS Agreement. It served as a foundational reference for discussing WIPO's role in harmonizing IP laws across jurisdictions.

Intellectual Property and International Law: A Research Framework: https://academic.oup.com/book/41122/chapter/350438257 accessed on 15th January 2025

Peter Goodhart's chapter outlines the relationship between intellectual property (IP) law and international law, focusing on cross-border governance and dispute resolution. It examines the role of international organizations like WIPO and highlights the challenges in harmonizing national IP laws.

Moser, G. (2021). *WIPO: Resolving Cross-Border Patent Disputes Through Mediation and Arbitration.* WIPO https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3271183 accessed on 20th January 2025

This publication outlines WIPO's role in mediating cross-border IP disputes. It explains the organization's alternative dispute resolution mechanisms, such as arbitration and mediation, and

their application in international patent disputes. It provided valuable insights into WIPO's innovative approaches to conflict resolution and informed the discussion on mediation practices.

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