



THE PROTECTION OF THE AUTHORS AND THEIR WORKS IN THE DIGITAL ENVIRONMENT UNDER THE INTERNATIONAL LAW

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Abstract:

There is a distinction in the legal protection and recognition of intellectual property rights for authors and works between the traditional and the digital environments.

Due to the scope and autonomy provided by computer systems and the internet, it has been established that any previous legal text enacted without taking into account their unique features and distinctions is completely inadequate in providing the necessary legal protection for the rights, obligations, and legal status established within its purview.

Keywords: Computer - Internet - Digital Author & Works - Intellectual Property Rights - International Law.

INTRODUCTION:

A rapid rise of internet usage is a defining aspect of our present era, especially as we traverse the Fourth Industrial Revolution, which is marked by Digital Domination, Improved Information Technology, and the advent of the Knowledge Society.

The computer is the key to this shift, with its unequalled ability to innovate and develop, allowing for endless distant opportunities and transactions. This has resulted in a digital world based mainly on digital media and platforms. The difficulties of intellectual property rights, both literary and artistic, have grown more important in this context.

It was previously inconceivable that international treaties regulating intellectual property would struggle to offer effective legal protection for authors and associated rights in an Internet context. Key treaties, such as The Convention of Berne of 1886 (revised in Stockholm in 1967, Paris in 1971, and 1979), the Rome Convention of 1961, and the TRIPS Agreement (approved in 1994, modified in 2005, and implemented in 2017), have experienced difficulty in addressing these new realities.

This is an important topic, because rules must strike a balance between internet users' freedom and the preservation of authorship rights. Due to its worldwide and public character, the internet's enforcement is complicated by specific country laws.

Furthermore, the ease with which digital assets may be copied and distributed complicates the task of combatting information piracy and enacting effective legal deterrents. Procedural and technological challenges in protecting digital works highlight the limits of enforcing classical Copyrights law in its current form.

This highlights the critical need for comprehensive legislation to handle Internet-related issues and manage the connection between authors and users of diverse works and performances on the internet.

In response to these criteria, the World Intellectual Property Organisation established the WIPO Copyrights Treaty, which was signed on December 20, 1996.

The reason for making this treaty the subject of this research is to address **the fundamental research problem statements**, which are as follows:

- *What is the difference between the digital and conventional environments in terms of assessing and protecting works and authors?*
- *How does the Copyrights Treaty of the WIPO provide legal protection for works and authors at both the substantive and procedural levels?*

- *How has it developed, in its pursuit, many controversial topics and issues in the fields of trade, tourism, law, politics, and economics, in a way that stimulates digital creativity and innovation on new and secure levels?*

To address the issues created by these problems, the research connects intellectual property and the internet by looking at the nature of digital works, defining the framework for Copyrights in the digital world, and determining the importance of their protection.

This supports the creation of a treaty devoted only to this issue. The article then examines the many legal provisions that the Copyrights Treaty of the WIPO attempted to regulate in order to tackle digital Copyrights challenges.

FIRST CHAPTER: THE SCOPE OF INTELLECTUAL PROPERTY PROTECTION WITHIN THE INTERNET

The global digital leap has had a tremendous influence on many parts of life, including intellectual property, notably Copyrights. The introduction of computers and the internet has made the publishing, dissemination, and sharing of works extremely simple, rapid, and inexpensive.

The evolution of the meaning of the word "Intellectual Property Rights" with the introduction of the internet has made it one of the most popular and significant topics.

Before addressing this, it is essential to establish the nature of digital works, including their idea, kinds, conditions, and the significance of their protection, which will eventually lead to a thorough comprehension of the 1996 WIPO Copyrights Treaty.

1- The Nature of Digital Works

National legal systems have categorized informational works as part of the computer environment, which is a frequent viewpoint in comparative computer law research¹. To establish the prerequisites for Copyrights protection for digital works in accordance with the 1996 WIPO Treaty, we must first define what defines a digital work.

1.1- The Concept of Digital Works

Since the mid-1970s, three different kinds of digital works have existed: software, databases, and integrated circuit topographies. These works arose from the divergence of computing sciences from communication sciences, coupled with the growth in data and information exchange facilitated by the internet, which serves as a medium for this exchange. Furthermore, they reflect the interaction and integration of computing and communication tools.

New types of digital works or components of works have evolved, necessitating legal protection, such as online fields, email addresses, and databases.

Based on this, digital work is defined as any intellectual, creative work in the information technology environment that is influenced by the changing idea of technology and technical performance without affecting the work's categorization under one or more branches of intellectual property. This position gained prominence towards the late 20th century, when technological devices such as computers and the internet became more important².

The characteristics of each type of digital works vary as follows:

A. Computer Programs:

Computer programs are the intangible the core of a computer system; without them, hardware and media would be useless. They include source code, machine code, algorithms, programming languages, and translation software³. Computer programs are often protected as literary works under Copyrights laws.⁴

B. Databases:

Databases are distinct data collections that reflect innovation, organization, or categorization achieved by human work, and hence deserve preservation. They may exist in any language or code and are saved on computers⁵. Their protection is often based on the factor of originality⁶.



C. Topographies of Integrated Circuits:

These include integrating electronic circuits onto semiconductor chips in order to accomplish electronic operations. The Washington Treaty of 1989 on Integrated Circuits was intended to protect this digital work⁷.

D. Domain Names:

Domain names function as Internet addresses. However, there is currently no single legislation in place to resolve domain name disagreements or the legal issues they raise, especially when a domain name matches, resembles, or is similar to a trademark or brand name.

However, several exceptions exist, such as regulations governing internet technological services, service standards, and legislation established by numerous countries to protect users from hazardous content⁸.

E. Electronic Publishing and Multimedia:

These media provide information in a variety of forms, including visuals, sound, motion, and effects. They are normally protected under the general rules for literary works, either because they are created using computer programs or because they are intrinsically literary works, which include written, auditory, and visual content.

In terms of electronic publishing and website content, items published on a website are protected by one or more intellectual property laws⁹.

Furthermore, the WCT mentions two subject matters to be protected by copyright:

- (i) computer programs, whatever the mode or form of their expression; and
- (ii) compilations of data or other material ("databases"), in any form, which, by reason of the selection or arrangement of their contents, constitute intellectual creations¹⁰.

1.2- The Conditions for Protecting Digital Works

To provide effective legal protection for a given digital work, various legal standards must be met, including:

A. Extending Copyrights Protection to Digital Works

Innovative digital works, regardless of their format or mode of delivery, are safeguarded by law. These works are classified as computer-based or multimedia creations¹¹ and are legally recognized as literary works¹².

B. The Necessity of Innovation in Digital Works

To be eligible for protection, a digital work, regardless of media, must demonstrate innovation. This includes infusing the work, even if inspired by an existing concept, with the author's own touch and distinctive style, resulting in an original work deserving of legal protection.

Innovation may also be used to website design on the internet. According to the broad Copyrights rules defined in the TRIPS Agreement, compilations of data or other materials—whether in machine-readable format or another form—are protected as creative works due to the selection or arrangement of their contents¹³.

For databases, innovation may stem from the originality of the data itself or the approach used in its organization, presentation, and compilation. However, the data content alone—such as simple texts or numbers—is not considered an innovative work.

Innovation is only recognized when the database represents the creator's personal contribution. Legal protection extends not to the raw compilation, but to the intellectual work and organization required to build its components¹⁴.



2- Copyrights in the Digital Environment

Although national legal systems have long recognized the moral rights of authors of intellectual works, technological advances have resulted in many innovations in sectors such as developing software for running and executing applications and tasks.

These developments have also sparked innovative outputs in database design, including organizational approaches, retrieval mechanisms, and interchange procedures. Furthermore, significant efforts in website design, the high value of a website's name, the importance of its content, and the growing trend towards electronic publishing of information and data have all highlighted the need to protect technology creators, whether individuals or companies¹⁵.

2.1- The Significance of Protecting Copyrights in the Digital Environment

The internet and its legal challenges have emerged as a unique subject of contemporary law. This discipline covers a wide range of problems, including internet subscription agreements, website construction contracts, e-commerce agreements, and digital rights safeguarding, with Copyrights being a major concern.

The internet's potential for facilitating unauthorized copying and distribution has increased the need of promoting Copyrights rights to solve these issues¹⁶.

Digital information is particularly important in legal terms because the rights and interests at stake in the information technology environment are frequently divided between two competing priorities: the public's right to access information and the creator's or innovator's right to protect and preserve their works.

These opposing interests need a careful balance of free access and control, which is achieved by information technology regulations that protect intellectual property.

In this respect, dealing with protected digital information is based on essential concepts, including acknowledging an individual's inherent right to access information, except in circumstances when such information is linked to creative activities that need the recognition of related rights and interests.

Digital information possesses intangible value with significant economic implications, subjecting it to laws governing tangible property.

Thus, behaviors and actions in the digital environment must hold legal validity and be recognized as expressions of intent and legal commitment, just as they are in the physical realm. For example, behaviours such as signing, authenticating, and presenting evidence, which are widely recognized in the actual world, should have digital equivalents including electronic signatures, authentication, and verification¹⁷.

2.2- The definition of the 1996 WIPO Copyrights Treaty

The World Organization for Intellectual Property was established by the 1967 Stockholm Agreement to encourage international cooperation in intellectual property protection, increase innovation, and enhance the administration of intellectual property-protecting organizations.

Article 04/04 of the agreement defines the organization's functions, which include promoting the conclusion of international agreements that foster intellectual property protection¹⁸.

While the organization played an important role in advising on author rights protection, it became clear by the late 1980s that its efforts were inadequate. The lack of enforceable international norms highlighted the urgent need for a stronger framework¹⁹.

The challenges posed by technical breakthroughs, particularly the emergence of the internet, have fuelled a quick drive for international collaboration. This prompted the creation of new mechanisms to manage Copyrights and associated rights, ensuring that they addressed the unique characteristics of the digital world²⁰.

The TRIPS Agreement was approved in 1994²¹, as the first annexe to the United Nations World Trade Organisation Agreement²², was a major step forward in the worldwide protection of intellectual property

rights. However, this accord failed to adequately address the rapid rising reach and impact of digital technology, particularly the internet.

In response, the work of The World Agency for Intellectual Property Committee intensified, aiming to provide additional legal protections. Several countries started enacting legislation to protect intellectual property rights²³, while simultaneously participating in international agreements designed to address advancements in modern technology.

These efforts focused on regulating intellectual property rights related to automatic data processing and transmission²⁴.

This achievement led to the Worldwide Intellectual Property Organization Diplomatic Conference in Geneva, which took place from December 8 to 20, 1996. During the conference, two major agreements were reached: one on Copyrights and the other on performances and sound recordings. Furthermore, a proposed treaty on databases was discussed²⁵.

Although the TRIPS Agreement addressed various concerns with digital technology, notably the internet, it failed to discuss all these matters in detail. This disparity prompted the World Agency for Intellectual Property to create two landmark treaties: one on Copyrights and the other on performances and sound recordings. These accords, together known as the "Internet Treaties," played a critical role in addressing the particular issues provided by digital technology and the Internet²⁶.

The WIPO Copyright Treaty (WCT) is a special agreement under the Berne Convention that deals with the protection of works and the rights of their authors in the digital environment. Any Contracting Party (even if it is not bound by the Berne Convention) must comply with the substantive provisions of the 1971 (Paris) Act of the Berne Convention for the Protection of Literary and Artistic Works (1886)²⁷.

SECOND CHAPTER: THE GENERAL PROVISIONS OF THE WIPO COPYRIGHTS TREATY (1996)

The establishment of new international legal protections, coupled with the clarification of how previously existing rules are interpreted, prompted lawmakers to broaden legal frameworks to address the challenges posed by recent economic, social, cultural, and technological developments.

The fast growth of information and communication technology, along with its profound influence on the production and transmission of literary and creative works—especially when conventional works and ideas move into the digital domain of the internet—has had a substantial impact on Copyrights protection²⁸.

The treaty's preamble emphasizes its primary goal: to highlight the significance of legal protection under Copyrights in promoting global literary and artistic innovation. This protection serves the public interest by encouraging innovation and knowledge access, while also attempting to strike a balance between author rights protection in sectors such as education, research, and information access.

This treaty includes a comprehensive set of substantive and procedural legal regulations to ensure the most effective and consistent protection of authors' rights. It also covers the different legal issues raised by the internet, proposing solutions to offset its detrimental impact on the preservation of digitally processed literary and artistic works²⁹.

1- The Issues addressed in the Treaty

The rise of Digital Technology, especially the internet, brought about new legal challenges, particularly with the signing of the TRIPS agreement. To address this, the treaty tackled several key issues, with the two most significant being the digital agenda and the complete control over the transmission of works online.

1.1-The Issue of the Digital Agenda

One of the primary challenges mentioned in the treaty is the "digital agenda," which pertains to the Copyrights of works stored and transmitted through digital systems.

The treaty sought to clarify its stance on several points of contention, including: To what extent can fixation on electronic media be considered a form of copying? Does uploading a work—even briefly—onto a user's device violate the work's legal protection? Does digital copying require the authorization or license of the author or related rights holder, similar to the requirements for traditional copying of works?³⁰

During the talks leading up to the adoption of the Treaty of 1996, the idea to develop a standard for the comprehensive protection of Copyrights Management Systems and associated rights was discussed. This protection was meant not just for the works themselves, but also for the technologies that enable the distribution of Copyrights-protected works via digital media³¹.

The development of a standard for the protection of rights management systems aroused intense controversy. Some claimed that permitting Copyrights holders or related rights holders to control systems that prohibit unauthorized access to works was required, even if the purpose for such control was legitimate and adequate. Others rejected this approach, arguing that it could lead to excessive control over products and hinder the lawful circulation of rights related to works³².

The negotiations concluded with an agreement urging countries to include adequate protections and effective sanctions in their laws to combat the circumvention of technological measures used by authors to exercise their rights, as outlined in the Treaty of 1996 and the Berne Convention.

These treaties ban activities that are not authorized by the authors and are not allowed by law in relation to their works. As a result, the standard for protecting electronic Copyrights management systems and associated rights focuses on managing the publishing process and preventing unauthorized digital circumvention of intellectual property rights³³.

1.2- The Issue of a Comprehensive Solution

Although the Copyrights Committee of WIPO reached an agreement during its preparatory phases that the transmission and distribution of digital literary and artistic works over networks would be subject to the author's exclusive rights, it did not specify the nature of the author's rights in these contexts.

The legal characterization of the author's rights in the system for transmitting digital works via digital cards provides unique issues owing to the technological novelty and inherent complications of digital transmission or broadcasting processes.

This difficulty is further exacerbated by the fact that national legislation in member states varies significantly in how it addresses the transmission and broadcasting of works, making it nearly impossible to reach a unified legal understanding of the rights associated with network transmission or broadcasting.

In response to these differing legal perspectives, the provisions of 1996 Treaty tackled the legal uncertainties concerning the transmission and broadcasting of digital works over networks. Rather than defining the rights through traditional legal categories, the treaty employed a technical standard for these rights.

Instead of categorizing rights based on traditional divisions of authors' rights over their works, the treaty characterized digital transmission, sending, and broadcasting in terms of technological aspects. Individual contracting states were responsible for determining the most suitable legal character for these rights inside their respective nations. Therefore, the solution offered by the treaty for authors' rights in the digital realm is referred to as the "comprehensive solution."

This solution applies to all protected works and encompasses all digital transmission, distribution, and broadcasting processes. It specifies that the transmission, broadcasting, and distribution of works via digital cards, their circulation on digital media, and their availability to the public shall be the exclusive right of the author.

However, each national legislator retains the power to define the legal nature of these rights and the scope of legal responsibility for any breach in accordance with the contracting countries legal systems³⁴.

2- The Substantive Regulations

This treaty was intended to address the impact of technology improvements on intellectual property rights. Its legal provisions were designed to establish worldwide standards that adapt to the changes brought about by contemporary digital technology—both as a medium of use and as a setting for the creation and protection of new works under Copyrights law³⁵.

As a result, the regulations were adjusted to cover three critical components: author, digital work, and internet. The treaty's provisions enhance the extent of Copyrights protection while adhering to the limits established by the Berne Convention. The preamble to the treaty emphasizes the parties' aim to provide a framework for developing Copyrights protection for literary and creative works and ensuring its efficacy in the digital age³⁶.

Similarly, Article 1 states that the treaty is a special agreement under Article 20 of the Berne Convention of 1886. This article allows European Union member states to engage into special agreements with one another as long as the agreements give rights that transcend those granted by the Berne Convention and do not contradict its provisions.

Furthermore, the treaty of 1996³⁷ is not limited to nations who have signed the Convention of Berne 1886. It is accessible to non-member nations and any international governmental organization that satisfies the relevant standards. This enhancement of protection goes beyond the treaty's basic terms. It also includes nations and international governmental organizations that have adopted Copyrights protection rules consistent with the treaty's objectives.

Notably, the treaty is separate from the WIPO Performances and Phonograms Treaty of the same year, emphasizing that it is not linked to any other treaties except the Berne Convention of 1886³⁸.

2.1- The Scope of Copyrights Protection

The treaty outlines the extent of protection for authors and their rights in both substantive and temporal terms³⁹. It also establishes a series of limitations and exceptions to this scope⁴⁰. The treaty highlights that Copyrights protection pertains to the manifestation of ideas, rather than the ideas themselves, as well as procedures, methods of operation, or mathematical concepts⁴¹.

Furthermore, it stipulates that contracting parties must abide by Articles 2 through 6 of the Convention of Berne⁴² which govern the substantive protection established in the treaty, with any appropriate amendments or adjustments⁴³.

The inclusion of computer programs and databases represents a significant extension in the area of protection. This extension follows the approach outlined in Articles 10/1 and 10/2 of the TRIPS Agreement. Under this provision, signatory nations must integrate these safeguards within national law⁴⁴.

As a result, computer programs are safeguarded as literary works under Article 2 of the Convention of Berne, regardless of how or in what form they are expressed⁴⁵.

Data collections or databases, regardless of form, are likewise protected as intellectual works based on the selection or organization of their contents⁴⁶. However, this protection excludes the data or contents themselves, without affecting any Copyrights⁴⁷.

Regarding the temporal scope of protection, the treaty⁴⁸ refers to Article 18 of the Berne Convention of 1886, which governs the duration of Copyrights protection.

According to this article, works existing when the treaty enters into force may only be safeguarded if the protection period in the country of origin has not expired. Protection does not extend beyond the duration of protection in the country where it is sought once the period expires.

This concept is enacted by particular provisions in bilateral or multilateral agreements between Union member states. Without such agreements, the relevant countries shall each determine, in their separate capacities, the exact criteria for implementing this principle⁴⁹.

In contrast, the treaty stipulates the application of the "three-step test" criterion⁵⁰ as a condition for introducing any limitations or exceptions to the granted rights, similar to what is stated in Article 2(2) of the Berne Convention of 1886 concerning the right of reproduction and Article 13 of the TRIPS Agreement regarding literary and artistic works⁵¹.

The "three-step test" includes identifying the limitations and exceptions that are permissible, but only in specific cases, ensuring that they do not conflict with the normal exploitation of the work or cause unjust harm to the author's legitimate interests⁵².

In a statement issued by the Diplomatic Conference, the parties agreed that these provisions allow contracting states to extend the limitations and exceptions contained in their national laws, which are considered acceptable under the Berne Convention of 1886, to the digital environment and apply them accordingly.

Moreover, the provisions permit contracting parties to present new exceptions and limitations, provided they align with the characteristics of the digital environment⁵³.

2.2- The Legal Effects of Copyrights Protection

The effects of Copyrights protection under this treaty vary, including the granting of a set of rights and the establishment of a series of legal obligations in exchange.

The Rights Arising from Copyrights Protection Can Be Summarized as:

A. The Right of Reproduction and the Right of Digital Storage

The treaty involves provisions related the right of reproduction and its application to the digital storage of works in any electronic medium or support. However, due to the inadequacy of the details provided, the Diplomatic Conference adopted a statement stating that the right of reproduction, as outlined in Article 9 of the Berne Convention of 1886, fully applies to the digital environment, including the right to benefit from digital works⁵⁴.

Thus, digital reproduction, regardless of its form, type, or duration, is regarded as a form of reproduction covered by Article 9 of the Berne Convention of 1886. This allows contracting states to include the exceptions set forth in the Berne Convention of 1886, especially those associated with the incidental reproduction right⁵⁵.

B. The Right of Distribution

The Right of Distribution is the right to authorize the making available to the public of the original and copies of a work through sale or other transfer of ownership⁵⁶. The treaty emphasized that authors of literary and artistic works have the sole right to authorize the public distribution of the original copy or additional copies of their works via sale or other ways of transferring ownership⁵⁷.

The unique form of digital work transmission via digital media has made it very difficult to determine the legal nature of the rights provided to protect such works. This challenge stems from the intricacies of the technology used to transmit, broadcast, or distribute digital works across several platforms and media⁵⁸.

The treaty concluded with the approval of a complete solution that addressed the technical character of digital works and created a technology standard for them while simultaneously emphasizing the exclusive nature of Copyrights in all situations. It assigned the burden of establishing the legal framework for the transmission, distribution, broadcasting, or storage of works to each contracting state's domestic law.

Furthermore, the treaty addressed the exhaustion of the exclusive distribution right⁵⁹, specifying that contracting states are free to set conditions for this right after the first sale or transfer of ownership of the original copy, as authorized by the author⁶⁰.

C - The Right of Rental

The Right of Rental is *the right to authorize commercial rental to the public of the original and copies of three kinds of works:*

(i) computer programs (except where the computer program itself is not the essential object of the rental);

(ii) cinematographic works (but only in cases where commercial rental has led to widespread copying of such works, materially impairing the exclusive right of reproduction);

and (iii) works embodied in phonograms as determined in the national law of Contracting Parties (except for countries which, since April 15, 1994, have had a system in force for equitable remuneration of such rental)⁶¹.

Authors of digital works have the exclusive right to authorize the rental of the original or any other copies of their works to the public for commercial purposes⁶². This includes computer works, cinematographic works, and sound recordings, as specified by the contracting states' national laws.

However, the right of rental excludes cases involving computer programs, unless the program is the primary subject of rental, or if it relates to a cinematographic work, unless the rental resulted in the distribution of copies of that work, causing material harm to the exclusive right of reproduction. Notably, the works stated above are those covered by Articles 11 and 14/4 of the TRIPS Agreement⁶³.

D - The Right to Communicate the Work to the Public

The Right of Communication to the public is *the right to authorize any communication to the public, by wire or wireless means, including "the making available to the public of works in a way that the members of the public may access the work from a place and at a time individually chosen by them"*. The quoted expression covers, in particular, on-demand, interactive communication through the Internet⁶⁴.

The Treaty of 1996 extended the provisions of the comprehensive solution to all digital transmission, communication, and broadcasting activities⁶⁵, confirming the authors' exclusive right to authorize or permit the transmission or communication of their works to the public via any means.

As stipulated, works may be transmitted, broadcast, and shared through digital cards, exchanged on digital media by any means, and made accessible to the public, provided the author grants authorization. The right of transmission remains an exclusive privilege reserved solely for the author.

However, the treaty leaves it up to each contracting state's domestic law to determine the legal nature, limits, and liability associated with any breach of this right in accordance with their different legal systems⁶⁶.

In other hand, the legal obligations outlined in the treaty relate to technological measures and the necessary information for managing and enforcing rights.

A - The Legal Obligations Related to Technological Measures

With the introduction of the internet, intellectual property protection standards started to evolve and adapt to the new form of legal interactions that resulted from it. This had a steady impact on the obligations associated with technological measures, requiring contracting states to incorporate adequate legal protection into their national legislation, as well as effective measures against the circumvention of technological measures used by authors to exercise their rights under this treaty⁶⁷.

These measures prevent actions that have not been authorized by the relevant authors or permitted by law regarding their works⁶⁸.

B-The Legal Obligations Related to necessary Information for Rights Management

During the treaty's preparation stage, it was recognized that just stating rights related with digital usage of works on the internet was inadequate. In such a setting, effective Copyrights enforcement is impossible without technical protection measures and the essential information for rights management.

This information is critical for authorizing and monitoring the usage of works. It was decided that the implementation of these measures and the supply of rights management information would be left to the rights holders, as long as corresponding legal provisions were in place to protect their use⁶⁹.

The treaty required the implementation of this form of protection⁷⁰. Upon examination, it specifies that the necessary information for managing rights includes details determining the work, its author, the rights holder, information about usage terms, and any numbers or codes representing such data. This applies when these components are either affixed to a copy of the work or accompany its communication to the public.

A declaration issued by the diplomatic conference established that the idea of violation of any right covered by the treaty or the Berne Convention of 1886 include both exclusive and remunerated rights.

However, the Contracting Parties shall not use these treaties to establish rights management systems or applications that impose formal requirements that are not permitted by the provisions of these conventions, or that restrict the free movement of goods or the enjoyment of rights contained therein⁷¹.

The treaty defines types of infringement involving rights management information as the unauthorized removal or modification of any electronically delivered information required for rights management⁷².

It also includes distributing, importing for distribution, broadcasting, or publicly transmitting works or copies of works without permission, knowing that rights management information in electronic form has been deleted or changed without authorization⁷³.

C - The Legal Provisions Related to Rights Enforcement

The treaty obligates the contracting states to adopt the necessary measures to implement its provisions in alignment with their respective national legal frameworks⁷⁴.

Additionally, they are required to establish enforcement mechanisms within their laws to ensure effective actions against any infringement of the rights protected by the treaty, including the application of punitive and deterrent penalties for violations.

It should be emphasised that this legal provision primarily reflects the content of Article 36 of the Berne Convention of 1886 and, to some degree, integrates all the provisions of Article 41/01 of the TRIPS Agreement⁷⁵.

3- The Procedural Provisions

The treaty's procedural legal provisions are examined in terms of defining the basic framework represented by the Assembly and the International Bureau, as well as the procedural rules controlling treaty accession and enforcement.

3.1-The Institutional Framework

The treaty establishes two key bodies responsible for monitoring its implementation and enforcement: the Assembly and the International Bureau. The treaty mandates the establishment of an Assembly consisted of representatives from each contracting state, with each state represented by a delegate who may be supported by alternate delegates, advisors, and experts⁷⁶.

The Assembly's tasks include addressing matters related to preserving, developing, implementing, and enforcing the treaty's provisions. It is also responsible for achieving legal obligations, such as admitting specific intergovernmental international organizations as parties to the treaty.

The Assembly can convene diplomatic conferences to review the treaty, with its director responsible for implementing the necessary procedures to prepare for such conferences. Each contracting state receives one vote in voting and meetings⁷⁷.

While each state votes in its own name, any intergovernmental international organisation that has signed the treaty may vote on behalf of its member states with an equal number of votes. However, this privilege expires if a member state of the organization uses its voting rights.

The Assembly meets every two years at the invitation of the Director General of the World Intellectual Property Organisation. It is responsible for establishing its own rules of procedure, such as calling

extraordinary sessions, establishing quorum requirements, and finding the necessary majority for different types of decisions in line with the treaty's regulations⁷⁸.

The International Bureau is tasked with conducting the administrative functions related to the treaty, although the exact scope of these functions is not fully defined⁷⁹.

3.2- The Accession treaty and Its Entry into Force

This treaty establishes the final provisions for accession, signature, and entrance into force⁸⁰. It states that each member state of the treaty has the right to join it⁸¹. Furthermore, the Assembly may decide to admit any intergovernmental international organization, provided that the organization declares its competence in addressing the matters covered by the treaty.

The treaty entered into force on March 6, 2002, after 30 countries had joined, meeting the legal quorum required for its effectiveness. By January 2009, the treaty had 69 member states, including 4 Arab countries: Jordan (April 2004), Oman (September 2005), Qatar (October 2005), and Turkey (November 2008)⁸².

Upon accession, each contracting state acquires the rights and assumes the legal obligations and responsibilities outlined in the treaty, unless otherwise specified in subsequent provisions⁸³.

The treaty addressed the issue of reservations to its provisions and the extent of their permissibility, explicitly stating that no reservations are accepted⁸⁴. Any contracting country, however, may withdraw from the treaty by notifying the World Intellectual Property Organization's Director General in advance. Such a denunciation is not effective until one year following receipt of the notification⁸⁵.

CONCLUSION:

Our study emphasizes the enormous impact of the internet's emergence and broad usage on intellectual property. This influence extends to developing its concept, scope, and the dimensions of protection regarding rights, obligations, and the necessary mechanisms to ensure adequate legal safeguards.

It also emphasizes the role of technology in broadening the horizons of law, fostering its understanding, and compelling it to keep pace with advancements in all its branches. The evolution of the intellectual property protection system has expanded the range of digital works under protection.

From this perspective, we have concluded some research results:

1. The WIPO Copyrights Treaty (WCT) is a special agreement within the Berne Convention that deals with the protection of works and the rights of their authors in the digital environment. Each Contracting Party (even if not bound by the Berne Convention) must comply with the substantive provisions of the 1971 (Paris) Act of the Berne Convention for the Protection of Literary and Artistic Works (1886).
2. The treaty has established rules aligned with the principles of Copyrights protection, adapted to the evolving forms and content of emerging digital works in the technological era. Consequently, new categories of works requiring protection have arisen, including computer programs, databases, integrated circuits, domain names, electronic publishing materials, websites, and their associated content.
3. The treaty acknowledged these breakthroughs in technology and included their components. It enacted regulations including worldwide technological and legal standards, to address the issues created by contemporary digital technology and its connection with Copyrights.
4. The treaty reaffirmed authors' rights, outlined their duties, and urged governments to join and ratify its terms, which do not allow for reservations. This marks a new level of strong and complete protection for authors and their rights in the digital world, comparable to the protection provided in conventional contexts.

5. The rights granted to authors, in the WIPO Copyright Treaty, apart from the rights recognized by the Berne Convention, are: The Right of Distribution; The Right of Rental; and The Right of Communication to the public.

Based on this paper, we offer numerous of research recommendations:

1. It is essential to ensure that member states of the International Intellectual Property Organization revise their national laws concerning the protection of Copyrights and related rights. This effort aims to align these legal frameworks with the provisions outlined in the two WIPO treaties addressing Copyrights protection in the digital age.
2. States should work toward implementing the technological and technical provisions outlined in the 1996 WIPO Treaty, as they serve as effective legal tools for safeguarding authors' rights in the online environment.
3. Institutional legal frameworks governing authors' digital rights require significant reinforcement, particularly to ensure they can safeguard their works against unauthorized transfers or reproductions in digital spaces.
4. Balancing substantive, procedural, and institutional legal measures to safeguard Copyrights and related rights in the digital sphere with society's collective right to access electronically published information and data is essential. This is particularly important for digital works that have been lawfully made accessible to the public.

Citations:

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