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Cybercrimes Related to Violations of Artistic and Literery Intellectual Property Rights in the Digital Environment

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Abstract:

Recent technological advancements have sparked a revolution in information and communication technology in recent years. Technological progress and the intensive use of modern technologies in various aspects of life have significantly altered the nature and manner of daily interactions between people. Computers and the internet have become central to all these interactions, providing everyone with easy access to networks and enabling them to effortlessly obtain the information they desire. However, this has also led to the negative use of such technologies, which are increasingly being used for piracy and violations of others' rights, particularly with regard to artistic and literary intellectual property. This includes the unauthorised copying of software and content presented online without the owner's permission, along with its reproduction, marketing and exploitation in any form. Therefore, to gain a scientific understanding of this type of cybercrime, this article addresses the following problem: what are cybercrimes related to violations of artistic and literary intellectual property rights, and how can they be avoided?

Keywords: intellectual property, digital environment, cybercrime,digital works, copyright

1. Introduction:

The widespread adoption of the internet across the globe marks a critical turning point in the way transactions are conducted and communication is facilitated between individuals and institutions. As Marshall McLuhan famously stated, the world has become a "global village" as a result. This development has given rise to numerous benefits and advantages at all levels. However, this network has also been used for negative purposes, leading to the emergence of cybercrime, which now threatens the security and stability of nations on multiple fronts. Among these are crimes relating to intellectual property rights violations in this new environment. Content creators and authors view this space as an opportunity to disseminate their research and reach a larger audience quickly.

Research problem:

Violation of intellectual property rights in the digital environment is a prevalent form of cybercrime that has been widely studied and analysed, particularly within the fields of law and library and information science. This is due to its critical importance for the advancement of nations and societies, as well as its role in encouraging innovation and preserving rights. Unfortunately, the emergence of computers and various communication technologies has led to the unlawful exploitation of works, compositions and digital content available online. This situation means that intellectual property laws, especially those related to literature and the arts, must keep pace with ongoing technological developments. The aim is to ensure comprehensive and adequate protection for the rights of these property owners, while enabling everyone to access and utilise information legally and appropriately, particularly in the field of scientific research. This article will discuss this in detail, addressing the main question: What constitute cybercrimes relating to violations of artistic and literary intellectual property rights online, and how can they be avoided?

Objectives of the study:

There are several reasons for conducting this study, the most important of which is to gain an in-depth understanding of an important type of cybercrime: the infringement of intellectual property rights in the new digital environment. The objectives can also be summarised as follows:

- To define the theoretical and conceptual framework of current cybercrimes.
- Investigating the protection of intellectual property rights in the new digital environment, a common type of cybercrime in recent times.
- To identify the types of digital works that are legally protected.

1. Theoretical and conceptual framework of cybercrimes.

1.1 The digital environment: A Fertile Ground for Cybercrimes:

The ongoing trend of automating various human activities signals the emergence of a society that no longer relies on printed or handwritten paper. In other words, it paves the way for a new concept of community: the paperless or digital society. The digital environment can be defined as ‘a set of human elements with varying tasks, specialisations, job levels, beliefs and scientific competencies that interact with each other according to an

administrative system to accomplish specific tasks' (Qandljeh & Al-Samarrai, 2004, p. 107). It is an environment that relies mainly on information networks and computers and encompasses a vast number of electronic resources and technical facilities related to the production and utilisation of information. It also provides a pathway for the development of information retrieval systems (Rahayli & Belhouchat, 2015, p. 509).

The digital environment is characterised by the dissemination of an informational society, which consequently encourages e-government, banking and electronic administration. This requires continuous development of information and knowledge society indicators by increasing the number of computers used for information management and the use of ready-made and customisable software for human resource management and educational and training activities. The digital environment serves as an integrated communication platform where digital devices act as tools for conveying and managing content and activities. This concept relies on electronic digital systems embedded and implemented for a global community (Bukhrebash & Hiha, p. 3).

The digital environment consists of a set of interconnected technological elements that form the basis of daily work. These include tangible components (hardware) and intangible components (software and applications), as well as the central element that controls the previous two components — i.e. the specialised, qualified human element. This ensures proper access to the digital environment without significant faults and guarantees the complete confidentiality of information. In terms of economics, decision-making processes in the digital environment today rely on advanced computerised management systems, alongside the growing role of networks such as the internet. This will eliminate borders between companies and involve potential changes that will lead to radical shifts in management, economics and commerce.

1.2 The nature of cybercrimes:

Cybercrime, also referred to as electronic assault, threats, risks or fraud, encompasses various modern terms associated with the advent of information and communication technology. There is conflicting opinion regarding the unification of the terminology used to describe this type of crime, with some favouring the term 'cybercrime', others 'computer crime',

and still others 'internet crime'. Sometimes, emphasis is placed on information and communication technology as the means by which these crimes are committed, while at other times, the focus is on information transmitted using such technologies as the target of these crimes. Thus, cybercrime can be defined as any unlawful behaviour that targets computers or uses them to cause harm to themselves or the information stored within them (Yousfi & Si Hamdi, p. 222). It encompasses any act or omission that infringes tangible or intangible property, resulting directly or indirectly from the use of information technology (Al-Malt, 2005, p. 96).

Cybercrime occurs in a calm setting, often in front of a computer screen. Unlike other crimes, it does not involve violence or bloodshed. However, electronic terrorism is an exception, as it is planned remotely using sophisticated technology and complex codes. Cybercrimes involve no violence, bloodshed or signs of intrusion; they are quiet crimes that do not require force and are usually discovered by chance (Mazouni, 2005, p. 211). The nature of the medium through which these crimes are committed means they are tranquil in that both the perpetrator and the victim are often in different geographical locations. They do not encounter direct violence, meaning they do not collide with reality. All countries suffer significant losses amounting to billions of dollars, prompting many nations to combat cybercrime by enacting laws and regulations to increase penalties for perpetrators and establish laws to protect information systems and means of communication.

Legislatively, the Budapest Convention of 2001 was the first legal attempt to address the growing problem of cybercrime, outlining a common penal policy to combat virtual crimes and ensure adequate protection from cyber threats. Since the 1970s, it has had a profound impact on international legislation combatting computer crimes (Qataf and Bouguerine, 2022, p. 337).

1.3 Characteristics of cybercrimes:

Global nature of the crime:

Internet crimes are modern crimes that utilise the internet as a tool for committing or facilitating the commission of a crime. They do not recognise borders between countries or continents. Often, these crimes occur across multiple international boundaries. For example, an individual

connected to the network in one of the Algerian cities could commit a crime against someone in the furthest part of the American continent without ever travelling there. They could send a virus via email to compromise the victim's computer, alter the content of a digital work by an author in another geographical area, impersonate that author or access a particular bank account to transfer funds to a specific entity.

Difficulty in monitoring and discovering:

Cybercrimes are often described as hidden and obscure because victims may not notice them, even when connected to the network. Perpetrators possess technical skills that enable them to execute crimes effectively, such as sending viruses, stealing or destroying funds and private data, spying and intercepting calls (Douadi, 2020, p. 48). There are several reasons why these crimes are difficult to discover and monitor, making the task very challenging for specialists. Perpetrators typically leave no tangible evidence to lead investigators to them, and if any evidence does exist, it is often quickly lost or diminished due to the precise nature of electronic technology. Perpetrators are usually well-versed in digital technology and its implications, and have control over it. In contrast, investigators often lack the experience to deal with rapidly evolving digital technology.

Crimes Committed by the Intelligent:

Perpetrators of cybercrime are often characterised as intelligent and cunning. They possess high technical skills and knowledge of computer system methods and operations, as well as how to store and retrieve information. In contrast, traditional criminals often have low educational qualifications (Boudiaf, 2018, p. 357).

2. Methods and mechanisms for protecting intellectual property rights in the digital environment

2.1 Definition of intellectual property rights:

It is fundamental and indispensable to ensure the intellectual property rights of creative owners, especially in light of the emergence of the digital environment and the multiplicity and diversity of storage media, both traditional and electronic, in order to promote innovation and creativity, whether in the literary or industrial fields.

The term ‘property’ comes from the Latin ‘proprietas’, which refers to the rights of the owner and individuals’ rights regarding the fruits of their intellect (Ermy, 5th ed., p. 3, 199). The term ‘intellectual’ (INTELLECTUAL) is also derived from Latin and signifies something non-material and intangible that has a moral reality independent of any material support. ‘Intellectual or mental right’ (DROIT INTELLECTUEL) is a term sometimes used for non-material properties, and the subject is purely intellectual and entirely non-material. ‘Intellectual property’ is a general term that encompasses literary and artistic property, as well as industrial and commercial property. It relates to the conception of a work rather than its realisation (Al-Sanhouri, 1964, p. 206).

The World Intellectual Property Organization (WIPO) defines intellectual property as follows on its website: ‘Intellectual property refers to creations of the mind, such as inventions, literary and artistic works, designs, symbols, names and images used in commerce.’ Intellectual property is legally protected by rights such as patents, copyrights and trademarks, enabling individuals to earn recognition or financial benefits from their inventions or creations. The intellectual property system aims to strike a balance between the interests of innovators and the public interest, fostering an environment that encourages creativity and innovation” (WIPO, 2022). Thus, intellectual property encompasses everything that the human mind produces in the fields of literature, art, science, industry, and commerce that is translated into a tangible form and characterised by a certain level of novelty and innovation, warranting legal protection (Yousfi & Si Hamdi, 2018, p. 218).

Intellectual property rights have both positive and negative effects. For the innovator, the positive effect is that intellectual property rights grant them moral rights, attributing the innovation to them and immortalising their name, as with Newton, the discoverer of the law of gravitation. They also provide a financial right to legitimately invest in their idea. Conversely, the negative effect is the prohibitive nature of the rights, which prevents others from dealing with or investing in the innovation without the innovator’s permission or licence (Yousfi and Si Hamdi, 2018, p. 218).

2.2 Types of Intellectual Property Rights:

One of the most common classifications divides intellectual property into literary (copyright and neighbouring rights) and industrial (trademarks,

patents, trade secrets, geographical indications, source data and industrial designs). Due to technological advancements, there is now discussion of a new type of intellectual property called ‘intellectual property for digital works’, which encompasses intellectual property rights arising from the use of the internet in the digital environment. More precisely, it refers to ‘every creative work that belongs to a technological environment’. According to this evolved concept, such works belong to a different branch of intellectual property. This view has emerged alongside the increased use of electronic means at the end of the 20^(th) century, driven by the intensive use of computers and the internet (Yousfi and Si Hamdi, 2018, p. 219).

2.2.1 Industrial and Commercial Intellectual Property:

This is an important category of intellectual property that includes the protection of trademarks and geographical indications used to distinguish goods and services. The aim is to promote fair competition and protect consumers. It also encompasses patents, industrial designs and trade secrets, with the aim of fostering innovation and technological development (World Trade Organization). The categories are as follows:

Patents: ‘A patent is any creative idea reached by an inventor in any technical field related to a product or manufacturing process that practically leads to a solution to a specific problem’ (Abdullah, 2008, pp. 22–23).

Industrial designs: This term refers to ‘any shape, mould, or structure used to manufacture goods and products in a way that gives them a distinctive appearance and differentiates them from others’, as seen in the production of shoe moulds, car structures, perfume bottles, and so forth (Zin Eddine, 2004, p. 34).

Trademarks are one of the important categories of industrial property and refer to ‘any distinctive physical sign that a manufacturer, trader or service provider uses to distinguish their industry, goods or services from similar ones’ (Zin Eddine, 2004, p. 34).

2.2.2 Literary and Artistic Intellectual Property:

This category is divided into copyright and neighbouring rights.

First: Copyright:

Regardless of whether the work is literary or artistic, it always represents the product of someone's ideas and efforts. It is an expression of their personality, revealing its depths, virtues and shortcomings. The author's rights in relation to their work are closely connected to their personality. The extent to which a community respects an individual as an entity with rights independent of the community becomes clearer and clearer. The specific nature of the author's rights in relation to their work has sparked much legal debate.

The author's right to their work differs from other forms of intellectual property in that it is temporary and lapses into the public domain after a certain period; ordinary property rights, on the other hand, are permanent and can be inherited. Furthermore, authors' rights encompass a moral aspect that gives authors exclusive rights to decide whether to publish their work to the public. This means that others cannot alter it by adding to, deleting from, or modifying it. These are referred to as moral rights. Additionally, when an author decides to publish their work, their rights encompass a financial aspect, incorporating this right into their financial assets. This is referred to as economic rights (Bouaicha and Belaïor, 2020, p. 42).

The first law to protect copyright was passed in Britain in 1702. This legislation established the author's right to all printed copies for an agreed period (Younes, 1983, p. 52). This legal recognition of authors' rights was unprecedented, granting a protection period of 14 years, renewable as long as the author was alive. The United States enacted similar legislation in 1790, which remained in force until 1834. The oldest and most significant law in Europe is the French law, from which most European countries derived their legislation. Enacted three times — first in 1791, then in 1793, and finally in 1957 — it remains in effect in France to this day. Unlike many African countries (Haqas, 2012, p. 29), literary and artistic works have been protected in European, American and Scandinavian countries for much longer. Many African countries only acknowledged these rights many years later. In Algeria, the first copyright protection law was enacted in 1973 under Order No. 73-14 dated 3 April 1973, and the most recent was under Order No. 03/05 issued in 2003 (Belhussein and Maleki, 2020).

The author's rights are detailed as follows:

Moral Right of the Author:

There has been no consensus on a singular definition for moral rights. Some argue that they serve as a protective shield, allowing the author to affirm their identity against contemporary and future audiences. Others believe that moral rights are more negative than positive. The Berne Convention stipulates the author's moral rights, which include absolute freedom of thought and creativity. They are free to express their opinion within the bounds of the law and cannot be forced to adopt a particular idea or outcome of their research or conclusions (Al-Atifi, 1974, p. 264).

The author's right to attribution:

This is the author's right to attribute their work to themselves, and to have their name mentioned on all copies produced whenever the work is presented to the public. This is known as the 'right of attribution'.

The author's right to decide on the publication of their work:

This right is exclusive to the author, allowing them to decide whether to publish their work and make it available to the public without any interference from others.

The author's right to modify their work:

The author's right to claim their creation as their own, and to determine how, when and in what manner to publish their work, necessarily includes the right to modify their work by altering, deleting or adding content (Haqas, 2012, p. 35).

The author's right to defend their work:

Among the author's purely moral rights, which are recognised by most organisations in the field and protected by national laws in various countries, is the right to defend their work against infringement, distortion or misinterpretation.

The author's right to withdraw and revoke the work from circulation:

Regret is a psychological state, whereas withdrawal is a tangible action that expresses this feeling. Therefore, the former is a feeling experienced by the creator, while the latter is a practical translation of that feeling. Consequently, an author may exercise their right to withdraw a

work from circulation due to regret over an opinion expressed in it, a statement made about it, or even the form it has taken, provided they believe its content affects their reputation, status and honour (Yahi Bay, 2020, p. 327).

The author's economic right (material right):

The economic right of the author refers to all forms of exploitation through which the author benefits from their work. Therefore, the author has the right to exploit their work in any way they choose and to receive financial returns from it. These rights include the right to publish, the right to public performance, the right to follow up, the right to transfer and the right to lease (Slimani, 2020, p. 68). Consequently, under this right, the author has the right to invest in their work and obtain financial income from its publication, broadcasting, promotion, copying or allowing its use. These rights are subject to all legal transactions and are as follows:

The author's right to print, deposit and release their work to the public:

This is an exclusive right of the author, allowing them to choose how to exploit their work.

The author's right to copy their work:

No individual may exercise this right without obtaining written permission from the author. This allows the holder to copy the number deemed appropriate to promote the work, provided it does not infringe the author's other rights.

The author's right to translate their work into the language they see fit:

This increases the popularity and circulation of their work, with the aim of achieving the highest possible profit from exploiting their creation.

The author's right to dispose of their work:

the law grants authors the right to permit others to use one or more copies of their work, enabling the latter to present it to the public through recitation, delivery, performance, broadcasting or any other means (Haqas, 2012, p. 38).

Second: Neighbouring Rights of the Author:

Linguistically, the term 'neighbouring' is derived from the word 'proximity', meaning existence close to something without merging with or separating from it due to similarities. Historically, it was used to refer to Al-Azhari students who would 'neighbour' the mosque, meaning they were closely associated with it and lived within it (Siddiqah, Hegazi & Badawi, 1999, p. 683).

In a legal sense, neighbouring rights are those associated with the author's rights. They are characterised by the technical transformation of the original work for presentation to the public or by audio recordings related to it. They also encompass works aimed at disseminating literary and artistic works, even if they are not original creations themselves.

Neighbouring rights are linked to the author's rights in that they also seek to deliver the work to the public and contribute to its realisation so that it can be exploited. It is worth noting that various terms in some legislation indicate neighbouring rights, including related rights, linked rights or associated rights (Okasha, 1999, p. 51).

2.3 General overview of digital works subject to legal protection:

Digital technology and the internet have produced a powerful tool that enables creative content to be distributed rapidly and at low cost to billions of people around the world. While the evolution of the digital environment brings new opportunities, it also poses challenges for rights holders and the general public. Understanding how these transformations affect the operation of the copyright system, and addressing these issues, is one of the major global intellectual property issues currently being studied by policymakers, including the protection of digital works (WIPO).

Digital works are products of modern technology and do not differ fundamentally in content or nomenclature from traditional works such as books, journals, musical pieces and oil paintings. The only difference lies in the medium: instead of words being inscribed on paper, the digital medium has been used from the beginning. For example, when we write a paragraph on a computer and save it, the result is an electronic text file that the computer retains and retrieves by converting the inputted natural language

into machine-readable binary code (1s and 0s). These are referred to as digital works.

Additionally, a work may originally exist in print and then be digitised by scanning it, thereby transforming the text into a digital format. In the digital environment, a literary work is a digital version of an earlier work, with no changes or modifications to the original. This involves transferring written text, audio, images or audiovisual content from traditional media to advanced digital formats, such as CDs or digital video disks. These creative intellectual works belong to the information technology environment and are treated in digital form (Manasria & Masouda, 2019, p. 246). Others define it as any creative intellectual work belonging to the information technology environment, according to the evolving concept of technical performance and in line with future technological development trends, without affecting its classification as belonging to one branch of intellectual property or another (Arab, 2004).

These are the innovative works belonging to the information technology environment, operating within it or based on it to accomplish assigned tasks. They represent the abstract, logical stages involved in addressing a problem or idea using information systems, whether they are installed on electronic media or written in one of the recognised languages of information technology. This definition takes into account the types of works specified by copyright laws, as well as the nature and composition they have designated for protection. This can include digital works such as computer programs and databases (Sofalo, 2017, p. 13).

Dr Widad Ahmed Al-Aidouni provides a succinct definition: ‘A digital work is a creative intellectual work belonging to the information technology environment and treated digitally’ (Al-Aidouni, 2010, p. 4). These digital works include those protected under literary and artistic intellectual property rights (copyright and neighbouring rights), as well as those protected under industrial and commercial property rights.

2.4 Types of digital works subject to legal protection:

These works are delineated by the Digital Rights Management (DRM) system, which refers to technologies that control the use of digital works. While it is a technical response to copyright issues, it is controversial due to its impact on ease of use and privacy protection (Legal PROD, 2024).

Digital works relevant to legal protection under intellectual property law fall within the following categories:

Computer programs and software:

Computer programs are among the earliest and most significant types of intellectual work to require legal protection. They represent the intangible entity of the computer system. This category includes operating software, which enables the various components of the system to work together and provides a working environment, as well as application software (Alawi, 2007, p. 5). Therefore, computer software is one of the digital works protected by international and national copyright laws.

Initially, there was a divergence in the nature of the law protecting this category of digital works, but the prevailing opinion favours protection under copyright law. However, some countries still protect it under industrial property law, specifically patents. Algeria protects this type of work under copyright and neighbouring rights because it considers it to be an artistic work consisting of sequential logical processes.

Computer programs are defined as 'instructions installed on a medium that can be read by systems that process information in order to perform a specific task'. Without software to operate it, a computer cannot fulfil its intended purpose (Amjad Abd Al-Fattah, 2008, p. 225; Diala Issa, 2002).

The term 'computer software' is broader and more comprehensive than 'computer program'. Software can include a number of programs within its package and is commonly known in the market as software bundles. These cannot be separated and reinstalled individually on another computer. A well-known example of such a bundle is Microsoft Office, which includes word processing, spreadsheet, graphics and presentation programs, among others.

Databases:

This work has recently attracted the attention of both foreign and Algerian legislators, even though it was not explicitly mentioned by name at the outset. Databases involve the selection, collection and compilation of literary, artistic or musical works, computer programmes and other data,

such as texts, images, documents, numbers and events. They are organised and stored systematically, and it is impossible to access or retrieve information from them using information technology or any other means (Diala Issa, 2002, p. 39).

Dr Abdul Malik Ben Sebti further emphasises this in one of his works, stating that 'databases and information systems are valuable and rich resources in the field of higher education and scientific research'. They constitute an essential and important part of various information systems, especially in an era of increasing numbers of users of various local and international information networks' (Ben Sebti, 2004, p. 134).

In the computer terminology dictionary, it is defined as 'a method of organising data in the form of a large master file that allows for comprehensive handling of information to meet the various needs of decision-makers'. It is also called a 'database', which is 'a collection of data about areas of activity in an organisation, stored using one of the direct storage means' (Al-Kilani and Al-Kilani, 1998, p. 108).

Databases are not explicitly mentioned in either the Berne Convention or the World Intellectual Property Organization (WIPO) Treaty. However, Article 2 of the Berne Convention states that "a collection of literary or artistic works, such as encyclopaedias and anthologies, is considered an intellectual creation due to the selection and arrangement of its contents". This implies that, while databases are not explicitly named, they can be inferred from the phrase 'considered an intellectual creation due to their selection and arrangement of content'.

This reflects the principle of how databases operate. Therefore, they fundamentally represent 'a form of software in the broad sense' and are a type of intellectual production, provided they meet the originality requirements for copyright — meaning the condition of creativity must be fulfilled.

Databases are among the most widely used digital resources on the internet. Therefore, they must be protected from technical and legal threats. It is important not to confuse the subject of database protection. Database protection pertains to the content itself — the data and information arranged, designed and organised in a specific manner — rather than the programs used to manage and operate the database, which are protected

under software protection laws. Additionally, databases may contain works that are legally protected, such as collections of texts from books that were originally protected by copyright law. In this case, the protection of these texts remains in effect independently of the protection of the database as a whole, and the legally stipulated protection period applies to them.

Multimedia works:

The internet contains a vast amount of digital works, some of which are legally protected, while others are not. Due to their digital nature and the various forms in which they are presented on computer screens and web pages, these works are particularly vulnerable to infringement on the Internet, as they do not require significant human intelligence to be targeted. Multimedia works are defined as new informational carriers that combine audio, text, still or moving images, and data from various media simultaneously. They are primarily intellectual works presented in a modern digital format in the form of images, text and sound, whether the images are animated or static (Belhussein and Maleki, 2020).

The nature of multimedia and the possibility of protecting it under copyright law has raised significant issues due to the artistic and technical characteristics that dominate it, which often exceed those of other digital informational works (Bernard, 1995, p. 15).

Given the unique characteristics of the internet, such as its global reach and the ease with which information can be disseminated and retrieved, various violations of authors' rights have been facilitated in this virtual digital environment. In some legal frameworks, these acts are classified as crimes, not merely violations. They exceed permissible limits and involve infringing legally protected works or using something without the consent of its owner or holder. Copyright infringement refers to the unlawful exploitation or use of any of the author's rights without permission from the owner, i.e. the author, or those who have inherited the rights.

In the context of digital works, the methods of infringement and violation of copyright are as follows (Rahayli & Belhouchat, 2015, p. 525):

- Electronic publishing houses publishing a work without the author's or assignee's consent is considered a violation of the author's rights.

- Copying and pasting are considered infringements of the protected work.

Modifying, distributing and redistributing the work.

Downloading works onto computers and altering them constitutes infringement.

Installing on electronic devices constitutes unlawful copying.

Simply posting the work online without permission from the rights holder is also considered infringement.

- Broadcasting and distributing songs online without a licence is also considered infringement.

Conclusion:

From the analytical presentation of protecting artistic and literary intellectual property in the digital environment, it is clear that attention must be paid to works and creations placed on the internet, ensuring they are fully protected, whether through technical means or legal frameworks. This is especially crucial given the ever-growing technological advancements. In light of this, we propose the following suggestions and recommendations:

- Pay considerable attention to intellectual property in both academic fields and practical applications.

- Ensure that legislation and laws concerning intellectual property keep pace with ongoing technological developments, especially with regard to advances in electronic information carriers and media.

- Join various international agreements issued by leading organisations in the field of intellectual property protection, such as WIPO, the foremost organisation worldwide in this field, and seek to benefit from them.

- Combat any form of cybercrime, particularly that which infringes the rights of individuals and their property.

- Establish unified international policies that impose strict penalties on cybercrime perpetrators anywhere in the world.

- Support authors and creators throughout their creative journeys, ensuring their works are fully protected from inception, whether in traditional or electronic form.

- Implementing the laws concerning intellectual property protection, rather than merely considering them as ink on paper.

References:

Bernard, A. (1995). L'oeuvre multimédia: un essai de qualification. Dallez, Siry.

World Trade Organization. (No date). Retrieved 25 September 2025 from 'What do we mean by intellectual property rights?': https://www.wto.org/french/tratop_f/trips_f/intel1_f.htm

Ermy and A Fifth. (1990). Introduction to Intellectual Property Law.

Team Legal PROD. (29 March 2024). Retrieved 12 November 2025 from Digital Intellectual Property: https://www.legalprod.com/propriete-intellectuelle-numerique/.

WIPO. (No date). Copyright in the digital environment. Retrieved 12 October 2025 from https://www.wipo.int/fr/web/copyright/activities/digital.

Ahmad Hossan Amjad Abd Al-Fattah. (2008). Doctoral thesis. The extent of legal protection for copyright. Tlemcen: Faculty of Law. University of Tlemcen.

Asmahan Boudiaf. (2018). 'Cybercrime and legislative procedures to confront it in Algeria'. Journal of Almustazhir for Legal and Political Studies, 3(3).

Amal Sofalo. (2017). 'Protecting Intellectual Property in the Digital Environment': Doctoral Thesis. University of Algeria 1, Algeria. Faculty of Law.

Bougfala Bouaicha and Mohamed Nadhir Belaïour. (2020). 'Protecting artistic and literary intellectual property in the digital environment under Algerian legislation'. Journal of Childhood, Science, and Community Development, 5(5).

Taysir Al-Kilani and Mazen Al-Kilani: (1998). The Kilani Dictionary of Computer Terminology. Lebanon: Library of Lebanon.

Al-Attifi, J. (1974). Press Freedom According to the Legislation of the Arab Republic of Egypt. Egypt: Al-Ahram Commercial Press.

Jamila Slimani. (2020). 'The copyright in the digital environment: between infringement and protection'. Journal of Ma'araf for Legal and Economic Sciences, 1(1).

Hanan Manasria and Amara Masouda. (2019). 'Protecting intellectual works in the digital environment: from individual authorship to collective authorship'. Journal of Legal and Political Sciences, 10(2).

Khadija Yahia Bay. (2020). 'The right of regret and the right of withdrawal in the system of literary and artistic ownership and the principle of the binding force of contracts'. Journal of Comparative Legal Studies, 6(1).

Khalifa Ahmed Al-Malt. (2005). Cybercrimes. Egypt: Arab Thought House.

Slimane Qataf and Abdel Halim Bougrine (2022). (2022). 'Legal Mechanisms to Combat Cybercrimes under the Budapest Convention and Algerian Legislation'. Academic Journal of Legal and Political Studies, 6(1).

Salah Zain Eddine. (2004). Introduction to Intellectual Property: Its Origins, Concept, Scope and Importance. Jordan: Dar Al-Thaqafa.

Sonia Haqqas. (2012). 'Protecting Literary and Artistic Intellectual Property in the Digital Environment under Algerian Legislation'. Faculty of Humanities and Social Sciences, Constantine: University of Mentouri.

Amir Ibrahim Qandljeh and Fadel Iman Al-Samarrai. (2004). Computing and Automating Libraries: Investing in the capabilities of computers for library and information service procedures'. Amman: Dar Al-Maseerah.

Abdel Razak Al-Sanhouri. (1964). Explanation of Civil Law (Volume 8). [No place]: [No publisher].

Abdel Karim Abdullah. (2008). 'Legal protection of intellectual property rights on the internet: A Comparative Study of Legal Frameworks for Protection, Explaining the Legal Systems of Intellectual Property in Egyptian, Jordanian, European and American Legislation and Internet Treaties. Alexandria: Dar Al-Jamiah Al-Jadida.

Abdel Malik Ben Sebti. (2004). Lectures on Information Technology. Qsentina: University of Mentouri.

Aziz Younes. (1983). Who has priority? Authors' rights or readers' rights? Cairo: Arab Publisher.

Alaa Yousfi and Abdul Mumin Si Hamdi. (2018). 'Legal protection of intellectual property rights in light of the current challenges of the digital environment'. Tabbina Journal for Scientific Studies, 1(1).

Fatima Belhousine and Tarik Melki. (2020). Retrieved from 'Copyright and the Protection of Digital Works on the Internet': https://jilrc.com/archives/12134

Kawther Mazouni. (2005). 'The digital network and its relationship to intellectual property'. Master's thesis. Faculty of Law, Algeria.

Mohamed Rahayli and Zoubeir Belhouchat. (2015). Copyright and neighbouring rights in the digital environment: the Algerian case. Journal of Prince Abdul Qadir University for Islamic Sciences, 29(1).

Mohieddine Okasha. (1999). Lectures on Literary and Artistic Intellectual Property. [No place]: University Press.

WIPO. (2022). Retrieved 23 October 2025 from https://www.wipo.int/about-ip/ar/.

Moloud Boukharbash and Eissa Yahia. (No date). 'The impact of the digital environment on the components of the marketing strategy: A case study of Amazon.com'. Revue des Réformes Economique et Intégration dans l'Economie Mondiale, 13(02).

Naima Douadi. (2020). 'Cybercrime: its characteristics, fields of use and main methods of combating it'. Journal of the Language Centre, 2(1).

Hind Alawi. (2007). 'Protection of intellectual property in the digital environment from the perspective of university professors'. Cybrarians Electronic Journal, 12.

Widad Ahmed Al-Aidouni. (2010). 'The Sixth Conference of the Association of Libraries and Information: The Secure Information Environment: Concepts, Legislation and Applications'. Protection of intellectual property in the digital environment: computer programs and databases as a model. Saudi Arabia.

Diala Issa Wansa. (2002). 'Protecting copyright on the internet: A Comparative Study. Beirut.

Yusuf Siddiq, Mahmoud Fahmy Hijazi and Ahmed Zaki Badawi. (1999). The Simplified Arabic Dictionary. Beirut: Dar Al-Kitab Al-Lubnani.