

# Intellectual Property in the Digital Space: Legal Challenges in Protecting Digital Works – A Comparative Study

Dr. Khaled Omar Baras<sup>1</sup>

<sup>1</sup>PhD Candidate in Intellectual Property Law, Mid-Ocean University, Moroni, Comoros. Email: [ajjal\\_alu@hotmail.com](mailto:ajjal_alu@hotmail.com)

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**Abstract:** *The exponential growth of digital technology has posed serious challenges to the legal protection of intellectual property rights, particularly with respect to digital works. This paper examines the legal and technical difficulties in safeguarding digital content, especially in light of the ease of duplication, transmission, and modification. It compares the legal frameworks of Saudi Arabia, the United States, and France, analyzing how each system addresses digital copyright, enforcement, and technological measures such as DRM. The study identifies key gaps in current legislation and judicial practices and provides forward-looking recommendations to improve digital IPR protection in an increasingly interconnected global economy.*

**Keywords:** *Intellectual Property, Digital Works, Copyright, Comparative Law, Cyberlaw, Saudi Arabia, France, USA.*

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## 1. INTRODUCTION

In recent years, the digital revolution and the widespread availability of the internet have transformed the nature of intellectual creativity and production. This has led to the emergence of digital works that can be easily distributed, copied, and modified without precedent. This new technological reality has imposed profound challenges on traditional intellectual property systems, which were originally designed to protect physical works. In the digital environment, a single intellectual product can be duplicated thousands of times without loss of quality and distributed globally without authorization or supervision, posing a direct threat to authors' and inventors' rights.

This paper aims to examine the legal complexities associated with protecting digital works in light of national and international frameworks. It undertakes a comparative analysis of the legal systems in Saudi Arabia, the United States, and France to evaluate their effectiveness in addressing digital infringements, ultimately offering scholarly recommendations for enhancing legal protection.

## 2. Problem Statement

The central problem lies in the growing gap between the rapid technological development in the production and dissemination of digital works and the limited capacity of traditional legal frameworks to provide effective protection, given the difficulties of monitoring, evidence collection, and the multiplicity of infringement sources.

### 1.1 Significance of the Study

This study addresses a pressing legal issue with significant technical and legislative implications. It directly impacts innovation, investment in digital content, and the credibility of legal systems before international organizations concerned with copyright protection

## 3. METHODOLOGY

The study employs the following methodologies:

- Analytical method: to examine statutory provisions and judicial rulings.
- Descriptive method: to outline the current reality of digital content protection.
- Comparative method: to analyze the Saudi, American, and French legal frameworks.

### 3.1 Structure of the Paper

The paper consists of four main sections:

1. Conceptual framework on digital works and their legal characteristics.
2. Analysis of legal challenges in protecting digital works.
3. Comparative analysis of Saudi, American, and French legal systems.
4. Critical analysis and recommendations for enhancing digital content protection.

**Section One: Conceptual Framework on Digital Works and Intellectual Property in the Digital Environment**

Digital works refer to intellectual products expressed in electronic form, stored, displayed, or transmitted through digital means such as software, databases, e-books, images, music, and videos available online. They are characterized by intangibility, ease of duplication, and rapid distribution, making them more vulnerable to infringement than traditional works.

The unique nature of digital works raises legal questions about the scope of their protection and the applicability of traditional legal provisions. Given the borderless nature of the digital environment, identifying legal responsibilities becomes increasingly complex.

### **3.2 Legal Characteristics of Digital Works**

1. Lack of physical presence: Unlike printed books or CDs, digital works have no tangible form that can serve as proof or protection.
2. Ease of duplication and distribution: Works can be copied endlessly without quality loss, complicating infringement tracking.
3. Difficulty in tracing infringers: Offenders often use anonymous identities or VPNs, weakening enforcement.
4. Cross-border nature: Infringements often occur across jurisdictions, creating conflicts of laws and enforcement challenges.

### **3.3 Legally Protected Forms of Digital Works**

International conventions and national legislations generally recognize the protection of digital works, including:

- Software and mobile applications.
- E-books and digital journals.
- Digital images and graphics.
- Databases.
- Musical and audiovisual works.
- Websites and design structures.

These works qualify for protection provided they demonstrate originality and independent intellectual effort.

### **Section Two: Legal Challenges in Protecting Digital Works**

Despite their value as modern intellectual creations, digital works face several legal challenges that hinder their protection under existing intellectual property laws.

#### **3.4 Key Challenges**

1. Difficulty in adapting traditional provisions: Many laws are still framed for physical works, creating ambiguity in classifying digital works.
2. Weak evidence systems: Establishing ownership, publication time, or the source of infringement is often difficult.
3. Judicial enforcement issues: Courts often lack technical expertise, specialized judges, or mechanisms for cross-border enforcement.
4. Technical protection limitations: DRM can be bypassed, and its use sometimes conflicts with fair use principles.
5. Lack of unified international regulation: Despite TRIPS and WIPO treaties, global enforcement remains fragmented, allowing safe havens for infringers.

### **Section Three: Comparative Study of Saudi, French, and American Legal Systems**

#### **Saudi Arabia**

Saudi Arabia's framework is rooted in Islamic law but supplemented by modern regulations, such as the Copyright Law (Royal Decree M/41 of 2003, with amendments). Although it provides protection for works 'in any form,' explicit references to digital works are limited. Challenges include lack of specialized courts, limited digital evidence rules, and weak international cooperation.

#### **France**

France explicitly protects digital works under its Intellectual Property Code. Measures include the HADOPI Law against illegal downloads, recognition of DRM, and clear exceptions like private copying. Advantages include a specialized authority (HADOPI) and strong judicial support for digital copyright.

#### **United States**

The United States protects digital works under the DMCA (1998), which criminalizes DRM circumvention and sets liability standards for platforms such as YouTube. It also implements the Notice-

and-Takedown system. Strengths include fast litigation and clarity in platform responsibility, though challenges arise from expansive fair use exceptions.

#### **Section Four: Critical Analysis and Recommendations**

##### **General Analysis**

1. Legislation alone is insufficient: Enforcement and judicial mechanisms remain weak in some systems.
2. The U.S. model is flexible but overly broad in fair use.
3. The French model strikes a balance but is less adaptive to rapid innovation.
4. Lack of international harmonization continues to undermine protection efforts.

#### **4. Recommendations**

##### **4.1 Legislative:**

- Amend Saudi copyright law to explicitly define digital works and recognize DRM.
- Establish liability rules for online platforms, similar to the DMCA.
- Adopt digital evidence standards, including electronic signatures and forensic reports.

##### **4.2 Judicial and Procedural:**

- Create specialized IP courts.
- Provide judicial and legal training in digital rights.
- Implement technical enforcement tools, including IP tracing and cooperation with tech firms.

##### **4.3 International:**

- Enhance international judicial cooperation.
- Support new treaties with stronger digital rights enforcement mechanisms.

#### **5. CONCLUSION**

The digital environment has outpaced traditional legal systems, necessitating comprehensive reforms in legislation, enforcement, and international cooperation. Achieving effective protection of digital works requires not only modernized laws but also specialized courts, advanced monitoring techniques, and global collaboration. Saudi Arabia, given its legal and economic potential, is well-positioned to lead regional initiatives in this field, provided its legislation and judicial systems are further adapted to the digital age.

#### **REFERENCES**

##### **1. Arabic References:**

2. Adam, M. A. (2016). *Intellectual Property Rights and Their Criminal Applications: A Comparative Study* (Unpublished Doctoral Dissertation). Omdurman Islamic University.
3. Al-Sharif, N. M. (2023). *Ethics of Science and Intellectual Property Rights*. 1st ed.
4. Awda, H. K. (2012). *Studies in University Education and Intellectual Property*. Dar Wabet Publishing.
5. Touiro, I. (2021). *Protection of Intellectual Property Rights on the Internet* (Doctoral Dissertation). Sidi Bel Abbes University.
6. Aisha, B. B., & Ben, N. (2023). *Intellectual Property Protection in Cyberspace: A Comparative Legal Study*. Al-Nasr University Journal.
7. Sherehan, M. H. (2021). *Intellectual Property Rights at the National and International Levels: A Comparative Study Between Egyptian Law and the Saudi System*. *The Legal Journal*, 9(2), 538–560.

##### **8. Foreign References:**

9. De Beer, J., & Gold, E. R. (2020). *International Trade, Intellectual Property, and Innovation Policy: Lessons from a Pandemic*. In *Vulnerable: The Policy, Law and Ethics of COVID-19*. University of Ottawa Press. <https://2u.pw/g1P5N>
10. Lucchi, N. (2005). *Intellectual Property Rights in Digital Media: A Comparative Analysis of Legal Protection, Technological Measures, and New Business Models under EU and US Law*. *Buffalo Law Review*, 53, 1111–1165.
11. Piette Coudol, T., & Bertrand, A. (1997). *Internet et la loi*. Dalloz.

##### **12. Laws and Treaties:**

13. Saudi Copyright Law, Royal Decree No. M/41 (2003).
14. *Implementing Regulations of the Saudi Copyright Law* (2023).
15. *Code de la propriété intellectuelle* (France).
16. *Digital Millennium Copyright Act (DMCA)*, United States (1998).
17. *Berne Convention for the Protection of Literary and Artistic Works (Paris Act, 1971)*.
18. *TRIPS Agreement* (1994), WTO.
19. *WIPO Copyright Treaty* (1996), WIPO.

##### **20. Online Sources:**

21. Saudi Authority for Intellectual Property. (2024). *Services and Regulations*. <https://www.saip.gov.sa> WIPO. (2024). *Treaties and Agreements*. <https://www.wipo.int> U.S. Copyright Office. (2024). *DMCA Overview*. <https://www.copyright.gov> Legifrance. (2024). *Code de la propriété intellectuelle*. <https://www.legifrance.gouv.fr>