



# Instruments for the Legal Protection of Digitized Cultural Heritage in Colombia

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## Abstract

Considering that culture is the product of creative and human processes, it is believed that intellectual property is a legal tool that allows for its protection given that it helps conserve, safeguard and preserve its tangible and/or intangible assets. In the case of digital heritage, which is made up of digital elements that should be preserved due to their cultural value, some challenges have arisen regarding their legal protection. One of these challenges is the lack of clarity about how the elements that comprise it should be protected, giving rise to doubts about how intellectual property should help solve this conflict. This article presents the discussion regarding the protection of digital heritage in Colombia, how copyright is becoming an instrument that contributes to its legal protection, and the challenges to further develop it in the country.

**Keywords** Cultural heritage · Digital heritage · Intellectual property · Copyright · Colombia

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## 1 Protection of Cultural Heritage: From the International to the National Level

At the international level, the protection framework is provided by the United Nations Educational, Scientific and Cultural Organization (UNESCO), which promotes cultural heritage and the equality of cultures through instruments such as the 1970 Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property [1], the 1972 Convention regarding the Protection of the World Cultural and Natural Heritage [2], the 1989 Recommendation on the Safeguarding of Traditional Culture and Folklore [3], the 2001 Universal Declaration on Cultural Diversity [4], the 2002 Istanbul Declaration on Intangible Cultural Heritage [5], the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage [6], and the 2005 Convention on the Protection and Promotion of the Diversity of Cultural Expressions [7].

These international instruments have been defining and establishing what is considered cultural heritage. Initially, UNESCO, in the Convention concerning the Protection of the World Cultural and Natural Heritage, defined it as heritage monuments and groups of constructions whose architecture is of exceptional value from a historical, scientific or artistic point of view, as well as places of universal value from the point of view of history, ethnology or anthropology. In this same instrument, natural heritage is defined as natural monuments, geological formations, natural sites, or areas. (Articles 1 and 2) [2].

Cultural heritage includes tangible or material heritage and intangible heritage. The former is composed of the irreplaceable, which represents a historical and cultural value of a community. These in turn can be movable if they can be moved and immovable, which are constructions in public spaces [8]. According to Article 2 of the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage, intangible heritage refers to “the practices, representations, expressions, knowledge, and skills—together with the instruments, objects, artifacts and cultural spaces associated therewith—that communities, groups and, in some cases, individuals recognize as part of their cultural heritage” [4]. Similarly, there is also mixed heritage, which refers to that which has a cultural and material connotation per the 1972 Convention concerning the Protection of the World Cultural and Natural Heritage [2].

As can be seen, the international protection of cultural heritage is based on a series of definitions, principles, and guidelines that seek to conserve, safeguard, and preserve tangible and/or intangible cultural property. With these provisions, States are expected to establish specific guidelines and actions that consider the characteristics and particularities of each form of heritage.

In the case of Colombia, the country has an organized legal framework based on the 1991 Political Constitution, which contemplates culture as a right of society and identifies the country as multiethnic and multicultural. Article 72 establishes that cultural heritage is under the protection of the State and Article 88 refers to the fact that the law shall regulate popular actions for the protection of collective rights and interests related to heritage [9].

Articulated in the Political Constitution is the General Law of Culture, Law 393 of 1997, modified by Law 1185 of 2008, which states that the cultural heritage is constituted ‘‘by all material goods, immaterial manifestations, products and representations of culture that are an expression of the Colombian nationality.... as well as the material goods of movable and immovable nature to which are attributed, among others, special historical, artistic, scientific, aesthetic, or symbolic interest in areas such as the plastic arts, architecture, urbanism, archaeology, linguistics, sound, music, audiovisual arts, film, testimonial, documentary film, literary, bibliographic, museology or anthropology’’ (Article 1) [10]. Likewise, the same article specifies that the representations include the Spanish language, the languages and dialects of indigenous peoples, black and Creole communities, traditions, ancestral knowledge, customs, and habits, as well as movable and immovable material goods [11].

The entity in charge of the protection of National Heritage in the country is the National System of Cultural Heritage, which articulates everything related to it, giving priority to the general interest, but also consulting the communities that participate and/or are linked to the assets or expressions that constitute the national heritage [12].

In the case of tangible cultural heritage, to protect movable and immovable assets considered relevant for the preservation of historic, artistic, aesthetic, or religious messages and values, among others; the competent authorities must nominate monuments, areas of historical, archaeological or architectural conservation and/or historical ensembles to be part of the Assets of Cultural Interest. Once included, the competent authority must develop a plan to ensure the conservation, maintenance, and protection of the asset [9]. In the case of intangible cultural heritage, the System establishes specific actions such as the identification, inventory, and valuation of heritage and the later inclusion of manifestations in the List of representations of intangible cultural heritage to create a Special Protection or Safeguarding Regime for each asset [11].

From this summary of norms, it can be seen that just as Querol [12, p. 11] points out, the preservation and conservation of heritage means protecting what human beings have considered part of their social and historical identity, what they consider sufficiently theirs to defend through legal tools, people, authorities, institutions and all other existing means that may be created to achieve this end, as is the case of digital heritage.

## 2 Digital Heritage: a New Type of Heritage for Humanity

In a State like Colombia where access to culture is a right, the spaces for promoting and safeguarding cultural manifestations, traditions, monuments, and artistic and cultural representations, there is a constant search for methodologies to remain up to date. All of this is to continue the dissemination of knowledge related to the cultural heritage of each community [13].

Amid this search for novelty and validity, digital media becomes an instrument for the dissemination of cultural heritage. This, according to Rico Cano [14], creates a new language through codes that generate images and sounds that allows for the

creation of new representations of information. According to the author, this language facilitates the dissemination of ideas given that its enjoyment does not require specialized knowledge or mastery.

Those who safeguard heritage, including libraries, museums, government institutions, and even collectors, opt for the digital conversion of their manifestations and objects—a method that will be henceforth called digitization—to increase access to the information they possess [15]. Other reasons for opting for this process include the reduction of physical manipulation of fragile or deteriorated material, the creation of alliances between institutions from different regions of the planet, as well as facilitating the search for financial opportunities for cultural projects.

Through the use of software, digitization makes it possible to create a new version of the assets [16]. This process has given rise to various cultural projects that vary according to the type of asset. This is why the ability to generate graphics and sounds makes digitization a versatile option for the representation of heritage [14]; as this, being so broad a dynamic can be presented through works of art, monuments, archeological sites, knowledge, and documents, among others.

This digital conversion mechanism has transformed how knowledge is produced and disseminated around the planet, generating a culture of participation where institutions and users can collaborate to create alternatives for safeguarding and conservation [17]. It is precisely this global collaboration in which culture directly connects with hardware and software [18], which gives rise to new interpretations of what heritage is in digital spaces and how its dissemination, accessibility, and conservation should be managed.

For UNESCO [18], digital objects related to heritage can range from databases, websites, software, texts, videos, and photography. Likewise, the organization indicates that permanent access to these elements provides greater opportunities for its dissemination and exchange of knowledge that keeps the notion of each manifestation alive, giving rise to a new type of heritage, the digital heritage.

For the National Library of Australia [19], digital heritage is composed of digital elements which are attributed sufficient value to be preserved over time. Complementing the UNESCO guidelines, the organization argues that this type of heritage is composed of the following elements:

- Electronic publications, including monographs, websites, and digital magazines.
- Semi-published documents, refer to restricted-use archives within specialized communities such as advanced articles or theses.
- Electronic archival systems, announcements, and personal or organizational electronic newsletters.
- Studies and data collected to study scientific, geospatial, spatial, sociological, demographic, educational, health, and environmental phenomena.
- Digitally distributed educational material.
- Databases, simulations, and software.
- Research reports, oral narrations of history, and folklore.
- Commercial and non-commercial entertainment products are created by the movie, music, gaming, radio, or TV industries.
- Graphic works and documentary photography on digital media.

- Digital copies of images, sounds, texts, and 3D objects made from non-digital originals.

After having analyzed different initiatives involving the study of heritage through the visual sphere, Torres and Delgado [16] generate the following six categories to demonstrate how the supply of digital platforms for the dissemination and conservation of heritage is distributed:

Databases with digital resources organized by topic.

- Interactive books.
- Search tool for primary sources that correspond to archives of digital libraries.
- Georeferenced platforms to display information through satellite maps.
- Online teaching resources.
- Tools to produce educational content using digital sources.

The above definitions and categorizations of digital heritage demonstrate that the cultural production of humanity can migrate or even be born in digital formats which are constantly being renewed thanks to the alternatives offered by technology and the internet [16]. However, in the face of the growing production of digital material by users and institutions, it is worthwhile to analyze and determine whether all the archives that employ the above-mentioned methodologies and tools correspond to digital heritage or heritage communication strategies.

In this regard, Conway [20] points out the importance of making a distinction between digitization for the preservation of cultural elements and digital preservation as a tool to protect the value of manifestations or assets. In this sense, the first option refers to the creation of new digital products from heritage elements; while the second corresponds to the strategies used to protect heritage regardless of whether it is composed of tangible or intangible elements.

It should be remembered that heritage finds in communication and dissemination a management tool for conservation since the *raison d'être* of cultural assets is the possibility for society to know, enjoy and value them [12]. Therefore, it is necessary to focus preservation efforts, including digital preservation, on the elements that are at risk and that a particular society considers should be safeguarded, as will be discussed below.

In this sense, and as stated by the National Library of Australia [20], given the growing production of digital objects and communicational initiatives present on the Internet, digital heritage is that which is given the value of being preserved with the intention that it will be consulted or used in the future. Therefore, just as with tangible, intangible archaeological, or other types of heritage, an asset is considered part of digital heritage when a community or social group recognizes a problem and makes an effort to ensure that it continues in the imagination of people, despite its mutations and evolutions.

Having clarified that not all software or archival elements found online are considered digital heritage, it is necessary to determine what are the problems that affect this type of heritage. According to Rico Cano, [14] not all the information coming from the internet is valid because there is a lack of control over the large number

of files uploaded to the network. Diara [21] on the other hand, discusses the ethical issue of data stored in the cloud. For the author, without an Internet connection, those files or initiatives hosted on the network will cease to be owned by individuals or the community; and this factor, as discussed above, could affect access to the built digital heritage.

UNESCO [18] warns about the rapid obsolescence of hardware and software that give access and life to digital assets, as well as the dissemination of methods for digital preservation and maintenance. Particularly the latter which is related to the objective of communication and dissemination of heritage, because if access to the digital elements that make up digital heritage is not ensured, particularly those in the public domain, future generations will not be able to enjoy the heritage that humanity has built so far.

Finally, there's the latent problem of a lack of legislation covering these initiatives which needs clarity on how to protect those manifestations and objects that have undergone a digital conversion or have been created in a digital format. Some of the discussions are focused on determining what licenses and authorizations are required so that such content does not infringe on intellectual rights and how intellectual property laws can be a vehicle for its preservation.

### 3 Digital Heritage Protection: Intellectual Property Challenges

Bearing in mind that the legal tool that in the first instance is most suitable for protecting works and creations in general is intellectual property, options have been explored to make this one of the ways of protecting cultural heritage. On the one hand, it is a mechanism that grants private rights to creators in recognition of their work, but on the other hand, it is a public interest right to enable the community to know and enjoy such creations [22]. It is a tool that avoids creating monopolies of creative assets, such as cultural ones, so they can be shared to contribute to the preservation of culture, education, science, and entertainment.

Authors such as Kymlicka [23] and López [24] have pointed out that the protection of cultural heritage is equivalent to the recognition of a collective right in the sense that it constitutes a political, cultural, and social power rooted in some individuals, which recognizes their identity as a cultural group in which intellectual property allows and promotes this intercultural connotation [25].

Intellectual property protects inventions, art, and literary works, as well as symbols and commercial names to encourage creativity and innovation [26]. In the case of intangible heritage, many of the cultural manifestations can be materialized in the protectable forms of intellectual property. However, the final product to be safeguarded must be considered as the idea is to transmit the information while recognizing creators under the authorized uses, but without interfering in the communication and transmission of culture through highly restrictive intellectual property policies.

Thus, the Convention on the Protection and Promotion of the Diversity of Cultural Expressions has indicated that for the sustainable development of communities, it is important to recognize their intellectual property rights [7]. Similarly, article

3 of the Convention for the Safeguarding of the Intangible Cultural Heritage states that its provisions must be interpreted in such a way as not to affect the rights and obligations of States Parties under other international instruments on the intellectual property [6].

According to the 2018 Guide to Intellectual Property in Folklore, Art, and Cultural Festivals, considering that culture is the public domain, intellectual property laws can protect goods and services derived from heritage. In the case of copyright, manifestations such as songs and literary texts that have as support some score, text, or recording can be protected, or, by using industrial property, distinctive signs such as collective trademarks, certification marks, or designations of origin can be protected when it is intended to identify and highlight a community and/or territory with its cultural characteristics [27].

In any case, as indicated in the guide, it is important to consider issues such as licensing forms, protection time, and permitted uses, among others, to achieve the most suitable protection that contributes to the community and effectively achieves the conservation and preservation of the heritage.

It also states that artistic tradition and its representations, through dances, customs, food, costumes, music, etc., have an effect at the cultural level in the preservation of the identity of peoples; at the social level in the strengthening of such identity; and at the economic level in the generation of employment and income. Likewise, this manual clarifies which intellectual property protection tools are used to protect the culture and which are useful for creators to benefit from the exploitation of the goods and services they produce [28].

The discussions about the safeguarding of cultural heritage in analog and traditional media seem to conclude that despite some obstacles, the ideal means for the protection of the heritage is intellectual property. International legal instruments urge states to regulate it internally by these means. In the case of digital heritage, the relevance of its preservation and the determination of the instruments of its protection is under construction and several discussions have been raised so far.

In the case of UNESCO, the aforementioned 2003 Charter on the Preservation of Digital Heritage [18] recognizes that digital heritage is an enormous treasure trove of information that covers practically all spheres of human activities and therefore involves two efforts: first, to allow access to this kind of content, and second, to safeguard digital memory to prevent its disappearance. In this regard, Article 8 reiterates that the Member States must guarantee the appropriate mechanisms to employ legislation on copyright and related rights that develop relevant aspects of the maintenance of archives, transfers of rights, and legal or voluntary deposits in libraries or museums.

Similarly, these legislations should prevent the manipulation or modification of digital heritage, on the understanding that in some scenarios this will imply an infringement of the moral rights of the author, such as the right to the integrity of the work. Another issue to legislate is the need to propose new exceptions and limitations to copyright that allow, for example, the right to copy for preservation purposes; also, the need to adopt legal measures to regulate licenses for the transfer and exploitation of information without losing the integrity and identity of the data [18, chapter 15].

In response to the UNESCO Charter, the European Union, with Recommendation 2011/711/EU [29] on digitization and online accessibility and digital preservation of material, urges its countries to digitize and preserve Europe's cultural memory through measures such as encouraging partnerships between cultural institutions, monitoring digital and/or digitized materials to ensure that they are not modified, and classifying material between copyright and public domain to ensure compliance with the law.

In the same vein, the Declaration on Cooperation in the Field of Cultural Heritage [30], on the preservation of cultural heritage, motivates European countries to take measures for the preservation of cultural heritage, for example, through 3D digitization, reuse of digitized cultural resources, enhanced cross-sectoral and cross-border cooperation, and increased capacity in the digitized cultural sector.

This statement is complemented by Regulation (EU) 2021/694 of the European Parliament and of the Council of 29 April 2021 establishing the Digital Europe Program [29], which calls on Member States to provide digital tools in the creative industry and the cultural sector, for the promotion of education, research, and support of cultural diversity. In this way, there are the Conclusions of the Council of the European Union on risk management in the field of cultural heritage 2020/C 186/01 [30] that highlight the obstacles that may exist in the preservation of digital heritage in terms of copyright and by the Resolution of the European Parliament of 20 January 2021 on achieving an effective legacy for the European Year of Cultural Heritage (2019/2194(INI)) [31].

The above instruments reveal the need of the European Union to reconcile intellectual property regulations and the digital format, and to this end, two main tools delimit the generalities that countries must consider when harmonizing copyright, and intellectual property in general, with digital heritage. On the one hand, there is Directive 2001/29/CC of 2001 on the harmonization of certain aspects of copyright and related rights in the information society [32] and on the other hand, Directive 2019/790 of the European Parliament, and the Council on copyright and related rights in the digital single market [33].

The first instrument urges countries to renew copyright legislation to correspond to the new realities, updating, for example, what has to do with public reproduction rights and the exceptions and limitations that cover libraries and museums [34]. The second seeks to allow institutions responsible for cultural heritage to have digital copies of the works for the sake of preservation and digitization, to allow reproduction for the exclusive purpose of conservation by the institutions responsible for the work and that works outside the commercial sphere, understood as those that can be presumed in good faith not to be publicly available for trade and for which it is difficult to obtain the authorization of the rights holders, be managed by a collective management entity that allows the granting of the license for non-commercial purposes to an institution responsible for cultural heritage [35].

Despite the existing legal regulations on digital cultural heritage, and the projects and experiences implemented by the European Union, which will be studied later, the legal protection regarding copyright in Europe still has many obstacles. Some of them are the lack of unification in the internal legislation of each of the member countries which has limited the exchange of protected material [36] as the



processing of licenses for transnational use is more complex; as well as the lack of agreements on the digital means of preservation of heritage since by using different formats, they are not always interoperable among them [37].

In Latin American countries, such as Colombia, unlike what has been happening in the European Union, discussions on the preservation of digital heritage are just beginning and some obstacles have already been identified for its development. Authors such as Voutssas [38] recognize that heritage digitization initiatives, mostly come from the private sector which often lacks the knowledge of the appropriate conservation processes according to the manifestation, as well as knowledge about the management of copyright licenses.

### 3.1 The Case of Colombia

Colombia has a robust legal system on cultural heritage, but it does not have a specific rule for the preservation of digital heritage. However, some of these laws provide tools on the subject, especially regarding one of its forms: the documentary heritage also known as the digital preservation of archives dating back to 2000 with the General Archives Law, number 594, which introduced the electronic management of archives [39], going through Law 1379 of 2010 on the organization of public libraries, which presents the concept of the digital library as collections of digital content (digitized material or information produced directly in digital format) available to the public. For example, everything concerning bibliographic and documentary heritage [40].

For its part, the Single Regulatory Decree of the Cultural Sector, 1080 of 2015, amended by Decree 2358 of 2019 and last updated in 2021, establishes that the National Integral System of Electronic Archives -SINAE- will be the program responsible for the coordination of the national policy of electronic archives of the Colombian State [40]. This requires the implementation of guidelines for the standardization, quality, conservation, preservation, and dissemination of documentary heritage in electronic format through the implementation of Information and Communication Technologies -ICT- [41]. Among the provisions of the same law, issues such as the requirement that electronic documents and information must be available in the long term and that preservation and digital custody standards must be complied with [42].

From the above rules, it can be observed that the regulations make greater reference to the preservation of analog documents that are transformed into digital formats, but not to other types of heritage resources generated in digital environments that also deserve to be protected, i.e., there is still no regulatory component related to digital heritage. Similarly, a public entity is entrusted to manage the digital documentary heritage, but the fact is that it is the institutions, which are not always public,<sup>1</sup> that must be adequately trained to assume the digitization of documents.

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<sup>1</sup> For example, the Fundación Histórica Neogranadina, a private non-profit organization, integrates digitization tools and experience to preserve and bring visibility to the manuscript documentary heritage of the colonial era [43].

Finally, aspects of archival deposits and supports are briefly mentioned, but nothing is said about the regulatory conditions of intellectual property for this to happen [44], considering that not all documents are in the public domain, and some require management of the author's patrimonial rights. At this point, due to the lack of measures on the subject, it is necessary to refer to the general regulation of intellectual property, and to that of copyright mentioned in Law 23 of 1982 [45] which was amended by Law 1915 of 2018 [46].

With the amendments of the latter law, some issues associated with new technologies that had not been considered and that contribute to the protection of digital heritage were addressed. For example, databases and software were protected in the same terms as literary works, extending such protection to both operating programs and application programs (article 12). It also allows software and databases to have technological measures to control their access, use, and exploitation against unauthorized use. In any case, the use of such measures is allowed when it is a bona fide use and does not affect the commercial exploitation of the work (article 13); which includes libraries, archives, and educational institutions that may carry out this action when it is a matter of accessing and/or preserving information.

Regarding exceptions and limitations to copyright, the reproduction of a computer program without the authorization of the owner of the rights is allowed only if it is a backup copy (article 16); it is also possible for institutions, such as libraries and documentation centers, to keep copies of works to be included in their permanent, analog, and digital collections. Another exception is that the aforementioned entities may make available to the public artwork, phonograms, audiovisual recordings, and fixed broadcasts which have been lawfully acquired and are not subject to the acquisition or licensing conditions utilizing specialized terminals installed in their facilities (article 17).

Another important article, number 18, incorporates the concept of orphan works. These are works for which the owner of the rights has not been identified, or has been identified, but it has been impossible to locate, despite verifying the search. This prevents their registration and the processing of the respective use authorizations making their use impossible. The intention of the law with this concept is to regulate how to gain access to this work, which it does in the following articles.

Thus, the use of orphan works that are solely and exclusively in repositories, libraries, educational centers, and museums, accessible to the public, as well as archives, film or sound heritage conservation organizations, and public broadcasting organizations located in Colombia is authorized as long as it is for purposes of public interest and it is intended to preserve, restore, or facilitate access for cultural and educational purposes. The entities authorized to adopt these works must prove the diligent search of the authors or owners and may obtain income only to cover the expenses derived from their digitization and make them available to the public (article 23).

Even though Colombia does not have a regulation on the preservation of digital heritage, the regulation on copyright, and in particular the new provisions on the subject, provide general protection tools that can be applied to digital heritage despite them not being associated with cultural heritage. In other words, there is no synergy between the regulation of cultural heritage, much less with that of digital

heritage and the provisions of intellectual property, despite this being its ideal means of protection.

The above shows that it is necessary to develop a specific law or regulation for the preservation of digital heritage that also includes everything related to the protection of intellectual property, specifically copyright. The relevance of the above lies, as has been evidenced throughout this research, in the fact that this kind of heritage is built and prevails in ways different from the traditional ones, even though it has a cultural essence and value that impacts aspects such as education and science, and the social and economic development of countries [47].

Considering the above and the Guidelines for the Preservation of Digital Heritage, and Chapter 15 on rights management, the progress, and challenges that Colombia has for the protection of intellectual property of digital heritage [18] are:

#### **4 Strategies for Colombia in the Preservation of Digital Heritage: The European Union as an Example**

As discussed in the previous paragraphs, there are several challenges that Colombia must undertake for the consolidation of the protection of digital heritage based on intellectual property. In this regard, it was also observed that the European Union has made great efforts to strengthen its regulation through several directives. However, the responsibility for the development of these directives corresponds to each member state [48]. Several projects and experiences that are being developed in this continent may serve as inputs for Colombia to come up with the steps to follow in the implementation of laws and policies aimed at protecting the same subject.

The following are some strategies that could be implemented in Colombia, based on projects and experiences from the European Union, to comply with the Guide for the preservation of Digital Heritage, Chapter 15 on rights management [18]: Recommendations.

As shown in Table 2, there are several successful experiences and projects in the European Union that can serve as a guide and proposals to be implemented in Colombia. Countries such as Poland are an example of how it is possible to develop the UNESCO Guide for the preservation of Digital Heritage and the European Union Directives through programs such as the Polish Digital Culture Programme, which covers private initiatives and institutional policies on the subject, even though it does not have a law for the protection of digital heritage, and its copyright law has not been amended for this purpose [48].

Initiatives such as the above-mentioned show us that the protection of digital heritage, in addition to having its national budget, has clear legislation and policies on the identification of digital cultural assets, the protection of resources under collective licenses, such as CC0, and preservation through technical standards of operability [48].

In any case, and as pointed out in the Intellectual Property Rights for CHIs in the Digital Single Market report—a comparative analysis of the inDICES project [52], there are still several challenges to be faced by the countries of the European

Union—even with the legislative progress they have made—and which are not different from those raised in Colombia in Table 1 of this article.

For example, the report mentions great difficulties that still exist to negotiate licenses individually, under different legislations, and in different locations, with the holder of intellectual rights. As well as how collective management, starting with the constitution of associations and the implementation of the use of collective licenses, would be the way to negotiate stipulated rates and the patrimonial rights that authorize the different uses of cultural goods in a shorter time [52]. In this sense, Colombia is not making progress in this debate because there is no specific collective management society to manage these works and there is no policy to implement collective licenses.

Another difficulty that persists in Europe is the diversity of their legislation. One of the major discussions is focused on the management of the moral rights of authors, taking into account that not all countries protect the same prerogatives, and their duration of protection also tends to be different and, since they are inalienable, it is not possible to negotiate them as is the case with economic rights [52]. In Colombia, this issue has fewer negative repercussions if it is taken into account that the countries of the region have the same Roman-Germanic legal system, which makes the regulation of moral rights very similar.

As discussed, the European Union and its member states have advanced in the development of the UNESCO Guide for the preservation of Digital Heritage, because in addition to having political developments at the regional level with directives on the subject and initiatives such as Europeana, some countries such as Poland have created programs to achieve true protection, access, and preservation of this heritage. In the case of Colombia, progress has been incipient and it is here where the European Union can be a guide to create its policies, without ignoring that there are also issues that have not been able to resolve such as the territoriality of the law.

## 5 Conclusions

There is no doubt about the importance of the preservation and conservation of cultural heritage and how international instruments have contributed to making countries like Colombia include internal policies that contribute to the prevalence of social and historical identity. Since the construction of cultural heritage is constant, new forms of dissemination and creation have been built within communities and in the world in general, as is the case of digital heritage.

While cultural heritage refers to all the goods and historical, scientific, or artistic manifestations that have a value that makes them worth being protected and preserved [1], digital heritage refers to the digital media which enables the dissemination of cultural heritage [18], as well as the production of digital objects that due to their cultural value deserve to be conserved, consulted and preserved over time. As mentioned previously, in the case of Digital heritage, there are several challenges involved in the conservation and protection of this heritage, because its access depends on the Internet connection of the communities and often the methods of support and dissemination can become obsolete [18].

**Table 1** Analysis of the guidelines for the preservation of digital heritage, on rights management and copyright regulation in Colombia

Recommendation	Regulations in Colombia	Progress	Challenges
Respect for the variety of copyrights	Law 23 of 1982 regulates the economic and moral rights of authors	There is a general regulation, especially for traditional media, for the protection of the rights embedded in the works and related author's rights	Identify which types of copyrights are managed and need use authorization depending on the product to be protected (software, image, video, databases). This needs to be done to make the respective acknowledgments and payments
Exceptions and limitations	With Law 1915 of 2018, new exceptions and limitations to copyright were incorporated for digital environments	On exceptions and limitations to copyright, as well as the use of public domain works without authorization Incorporation of exceptions such as the evocation of technological protection measures, the use of orphan works, and backup copies for the preservation of the work	Obtaining the necessary authorizations to manage intellectual rights can be difficult when it is impossible to locate the owners or when they refuse to surrender their rights
Collective management of rights and authorizations	Law 23 of 1982 authorizes the collective management of copyright and related rights	It is legally possible to create a collective management society for digital assets	Creating a specific regulation on the preservation and protection of digital heritage would allow the stipulation of exceptions and limitations that only refer to the authorization of collection, preservation, and access to some protected materials  Create a collective management society in charge of controlling, negotiating, and managing copyrights involving digital heritage  The creation of a collective society would allow the implementation of rights management plans according to the work and the type of heritage to be protected. It could also be in charge of the registration and monitoring of digital heritage in the country

Table 1 (continued)

Recommendation	Regulations in Colombia	Progress	Challenges
Clear usage and access policies	There is a robust regulation on the protection of documentary heritage. For example, Law 594 of 2000 and Law 1379 of 2010	The regulations for the protection of documentary heritage and intellectual property enable the execution of contracts for the assignment of rights and licenses	<p>Create clear rules on issues such as mandatory legal deposit, forms of deposit, handling of public domain works, and rules of access for users</p> <p>Create rules to sign agreements that promote other forms of digital heritage, since there is no clarity about what kind of information is part of it</p> <p>Train staff on the correct use and only for information preservation purposes</p> <p>Offer the option to manage other forms of licensing other than copyrights such as <i>creative commons</i></p>

**Table 2** Analysis of strategies to adopt the guide for the preservation of the digital heritage in Colombia based on the advances of the European Union

Recommendations	Projects and/or experiences	Strategies
Respect for the variety of copyrights	<p>The Europeana platform, which promotes and allows access to Europe's digital heritage, protects the metadata through "Creative Commons CC0 1.0 Universal Public Domain Dedication" licenses, which makes the data freely accessible for any type of use [48]</p> <p>The evaluation of the copyright status and authorization management must be done by whoever wishes to add data to the platform [49]</p> <p>Two of the countries that have implemented collective licensing policies within their public repositories are Switzerland and Denmark under CC0 1.0 standards [50]</p>	<p>The ideal strategy for managing all copyrights and the respective authorizations of the holders would be the creation of a standard collective license to be used exclusively for preservation, as stipulated by Europeana</p> <p>In the case of Colombia, this license should be mandatory for all assets that decide to digitize and become part of any repository, library, or museum, among others, public or private</p>
Exceptions and limitations	<p>Directive 2019/790 of the European Parliament and the Council on copyright and related rights in the Digital Single Market [34] requires member countries to introduce a mandatory exception and limitation to copyright when using the work required to preserve collections by cultural heritage institutions</p> <p>Thus, it is possible to access the work, regardless of the medium or format, in the appropriate quantity (which cannot be quantified in domestic legislation), at any time and to the extent necessary for the preservation of the collection, to ensure that the cultural property appears permanently [48]</p> <p>Countries such as Spain and Germany have incorporated into their legislation exceptions and limitations for bookstores and cultural management institutions [50]</p>	<p>Drafting an exception and limitation that allows the use of all available means when preserving the accessibility of digital heritage</p> <p>As mentioned above, this exception and limitation should be contained in the law and specific policies on the protection of digital heritage</p>

Table 2 (continued)

Recommendations	Projects and/or experiences	Strategies
Collective management of rights and authorizations	<p>Although so far, no country has a collective management society for digital heritage, public–private partnerships (PPPs) are being consolidated in Europe [51] that allow the signing of agreements for the management of intellectual property rights. These agreements provide access to information without exclusivity to achieve digitization and permanent access [50]</p>	<p>Although the recommendation is to create collective management societies, PPP agreements can be a good start to create synergies between the sectors involved in managing digital cultural heritage. Both for the creation of the collective management society and the creation of PPP associations in Colombia, the will and management of the interested parties are needed for them to be formed.</p>
Clear usage and access policies	<p>With the creation of Europeana, using CC0 licenses in European public cultural institutions to equalize the uses and rights of protected works and those in the public domain became a policy [48].</p> <p>Countries such as Poland have created catalogs on technological standards for digital heritage and good practices for its access and preservation. These catalogs constitute the requirements to be met by all entities in the processes of digitization, and technical and quality standards [48].</p>	<p>To meet the challenges set out in Table 1, and following the example of the European Union, Colombia's key strategy must be creating governance among stakeholders in the digital heritage, including governmental organizations and private associations.</p>



The legal protection of intellectual property rights of digital heritage is another one of the great challenges. Discussions are focused on how the laws should be written so that they do not become an obstacle to its conservation, but rather a vehicle for its preservation. While it has been believed that traditional cultural heritage should be protected by intellectual property, in the case of digital heritage, authors such as Ramos [53] point out that this could also be the way. However, more studies are needed from other sciences such as anthropology and sociology (which is beyond the scope of this article), on how these forms of protection have an impact so that they do not end up affecting the rights of cultural communities and the access of digital citizens to culture.

To reach suitable forms of protection of digital heritage, there are international and regional legal instruments, such as Directive 2019/790 of the European Parliament and the Council on copyright and related rights in the digital single market [35], which urge countries to implement measures for its conservation. In the case of Colombia, the discussion has barely started and there is still no specific regulation on the preservation of digital heritage and even less on the forms of protection of intellectual rights therein. This has led to the fact that the few digital heritage initiatives in the country are having to refer to the general laws of cultural heritage and intellectual property, those regarding copyright.

As shown in Table 1, on the analysis of the Guidelines for the Preservation of Digital Heritage, Chapter 15 on rights management [18] and copyright regulations in Colombia, there are several challenges facing the country in this area. For example, the establishment of greater exceptions and limitations to copyright that apply specifically to this sector and the feasibility study of the creation of a collective management society for digital heritage creations [54].

Regarding how Colombia should assume these challenges, Table 2 presents some initiatives that the European Union has developed, taking into account that it has advanced in the political and legislative discussions on the subject, and how these can serve as a guide for the next steps that Colombia should take to achieve the protection of digital heritage based on intellectual property. Initiatives such as European and the Polish Digital Culture Programme serve as examples of successful projects and strategies that deserve to be replicated.

The challenges and strategies presented in this article must be dealt with, either through agreements, the creation of institutions, and/or new legal regulations of intellectual property. This requires strategic planning [55] in line with the general policies for the protection of cultural heritage, given that the protection of property rights cannot affect the recognition and identity of the cultural fabric of society [56].

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