

# Digitization of Cultural Heritage and Related Issues of Intellectual Property

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**Abstract---** *Cultural heritage has an unquestionable role to play in shaping national identity, sustainable development and the competitiveness of creative industries. In light of the new emerging possibilities in protecting, maintaining and popularizing cultural heritage, the issues surrounding intellectual property posed serious challenges. Such criteria call for broad cultural policy strategic planning, including the preservation of intellectual possession of cultural heritage; digitalization as a medium of economic use and appreciation of it as a market tool for creative industries. The study examined the economic symbiosis between intellectual property and cultural heritage, exposed cultural values in their economic context and showed that intellectual property is adequate for security and provided a step by step framework for intelligent control of digitized cultural values. The main thesis is the need for a clear balance between national economic and cultural policies in terms to intellectual property rights to create an economic symbiosis of cultural heritage and creative industries.*

**Keywords---** *Digitization, Intellectual property, Cultural heritage, Copyright, Sui generis, Databases*

## I. INTRODUCTION

The links between cultural heritage and creative enterprises can be seen in foreign studies, describing the commercial relationship between cultural patrimony and intellectual property. Intellectual property is, in cultural heritage, the new means of safeguarding, maintaining and promoting cultural values and is its main economic driver for industrial growth of creative sectors. Going further into this finds that the reason for their involvement in the conservation of cultural heritage was the new opportunity provided to the software industry by its technological development, the digitization phase.

### **Aim of Research:**

The aim of the work is to establish areas pertaining to intellectual property protection that are useful to cultural institutions, relevant to the digitization of cultural heritage [1]. In this way, cultural managers will affect the growth of certain cultural industry and primarily tourism by offering intellectual property protection by CH digitization.

The main thesis is that the completion of the global basis of cultural heritage and creative enterprises involves a clear balance in terms of intellectual property rights between national economic and cultural policy.

## **II. METHODOLOGY**

The approach used is interdisciplinary and incorporates concrete evidence and best practices obtained by interviews and questionnaires. Analytical methods and synthesis shall apply to international, regional and national legislation on the digitalization of cultural heritage based on the treaties, conventions, regales, directives and other legal documents adopted by Member States of the European Union, the WIPO and UNESCO. Due to the broad scope of the analysis, there is not a large number of institutional, administrative and regulatory actions, but the findings are used to achieve the purpose of the report [2][3]–[5]. The research results primarily include the description of essential processes of the digitization of cultural heritage related to intellectual property and an analysis of the preservation, use, and distribution of the digitized objects in the management of intellectual property rights. The study also shows that cultural institutions, in the sense of the digitization of cultural values, could be used as a brief reference for intellectual property issues.

### **III Cultural heritage and Digitization:**

#### **III.I. Cultural heritage:**

The relationship between immaterial cultural heritage and intellectual property rights is not usually interpreted in national laws on cultural heritage. This is an important stage, thus its digitalization, as a practice that is completely associated with the protection of intellectual property rights, is the key usefulness of intangible cultural heritage. It is not regarded as common intellectual property in laws in the principal national heritage; therein it is not protected explicitly by the statute concerned. It belongs to everyone from its own culture, including the cultural heritage which is part of the public domain. Through the use of its digitization, without declaratory provisions or authorization scheme (some exceptions to the tangible cultural heritage), without compensation payment and without indicative origin requirements. Nevertheless, other intellectual property issues arise during the digitization of cultural heritage.

#### **III.II. Digitization:**

The so-called collective memory–containing printed material (books, newspaper, journal), images, museum exhibits, archival records and audio visual information (hereinafter the 'digital history') is the area of cultural heritage that is subject to digitization. There are many interpretations but in this research it is accepted that digitization is the process of creating an electronic copy of a certain physical material carrier by way of scanning or some other means of reproduction. In this way, digitalism is both a means to protect future generations ' cultural heritage and to ensure access to cultural values.

The involvement of its members is required in the case of cultural values (some of cultural values are property of their possession, some of copyright or similar rights) to respect the rights of groups over their cultural values. In addition to the advantages of digitization, the cultural and economic features of cultural values may also pose a potential risk of abuse. Therefore it is also a matter of developing frameworks to restrict the access to the system for digitization of cultural heritage in order to rape [6]–[8]. Through their security and copyright control, such a limitation protects intellectual property. As for the digitization of cultural values, the intellectual property rights, if remaining should be completely protected. In intellectual property, the licensing mechanisms of the so-called "intellectual

property” are a good model for managing rights during digitization: these requirements should be compulsory and, as a consequence, set in national cultural policies.

### **II.II. Digitization and intellectual property:**

The digitization is the result of the development and exposure by both consumers and customers to new technological tools for cultural relations. New ways of designing, developing and disseminating artistic matters are produced by digitalization. Digitalization is a dynamic technical and artistic phenomenon that generates a vast number of independent intellectual property artifacts such as applications, files, photos, videos, etc. That ensures that the following rights and associated freedoms are handled with special skills. At this point there is no complete legal regulation of the link between intellectual property and digitization. The digitally environment is the ‘medium,’ which creates an ecosystem in which the products of innovation are produced and disseminated and which identifies them as an important economic force in creative industry rights [5], [9], [10]. The technical opportunities offered to create, replicate and distribute innovative materials electronically, including production and sale of recording equipment, duplication and connectivity, simulated materials, transmitting equipment, musical instruments and equipment, paper, white-cut information bearers, etc. are the results.

Digitization is carried out in three directions: access to creative content via the Web, digitizing and promoting the cultural heritage, digitalizing the media industry for convergence of the associated creative activities. The digitalization, which is an important requirement for the development of new artistic goods in the digital environment, is directly associated with the safeguard, restoration, protection and promotion of cultural heritage.

### **II.III. Identification of the intellectual property in museums, archives, libraries:**

Intellectual property is primarily associated with intellectual property rights and the private usage and use for advertising purposes of the cultural heritage as a result of research, collecting, definition, recording, preservation / conservation / restoration / digitization. The associations with academic professionals, cultural institutions in relation to information and documents obtained from study and dissemination for economic or scientific purposes also include intellectual property. Intellectual property often occurs in the relations between study groups ‘consultants and members of the root society whose audio or video recording is the focus of performances or other cultural objects as well as displays of cultural heritage. It is a common practice that permission is usually sought to report results informally as a reaction to “Can I?” As a reaction, a question and a warm acceptance.

Whereas certain of the above relationships are regulated by various national rules, their existence underpins the need to specifically control relationships between cultural heritage and intellectual property. It is also directly related to its digitization as a mechanism that preserves intellectual property and promotes it as a cultural product, including the creation of a digital museum. Digitalization is deemed in most national legislation to be replicated in digital form, a property right that is exercised for a charge that requires the consent of its owners. In this respect digitization is a complex mechanical and artistic process requiring extensive experience in the administration of the copyright and related classes and produces many heterogeneous independent objects of intellectual property such as applications, data bases, images, etc. [6], [11]. Digitalization’s technological advantages are a ‘bridge’ for the growth of some creative industries through the creation of new goods, of a national importance in this case as the digital museum could be. The protection of copyright is important.

#### **II.IV. Identification of the objects of copyright protection in museums, archives and libraries:**

The digitization of cultural heritage is a mechanism made possible by the preservation policies of each national government according to different national laws. Conserving the cultural heritage is in this sense a comprehensive scanning, study, identification, documenting, tracking, storage, reconstruction and adaptation process. Cultural values recognition is a comprehensive hunt, analysis and preliminary estimate process. Experts in the field, scientific organizations, universities and museums who by means of their expertise and practice make, primarily scientific artifacts of intellectual property, quest and analysis of cultural values with the exception of those of archeological importance. The digitization of the cultural heritage is followed by the identification of cultural heritage, the collection of certain intangible objects, and the determination of specific legal ownership rights in digitizing objects.

All these types of copyright items are not provided by cultural organizations. Many museums can, for example, not hold computer repositories but only documents on paper.

#### **II.V. Identification of industrial property objects in museums, archives and libraries:**

A number of objects of industrial property have been registered by cultural organizations, some of them not. The name of the museum, archive or library and its logos or other signs which identify them shall be potential objects such as: graphic design, brochure design and an esthetic way of displaying collection; the presence, in the appearance of souvenirs, of specific designs or colors, as provided by cultural organizations; external and internal cultural organizations; When became widely known or architecturally respected (e.g. after featuring on hit-film production).

For rare cases, when the museum shops and supports new technological solutions, such as innovations, which result in new technical solutions being created by specialists in the recognition and study of museums, the right to apply for a patent is the responsibility of the client, because of working ties with the museum. In this case it is the museum that has the right to intellectual properties in the innovation. Technological know-how or a new or original method of preserving and conserving cultural values can be preserved when an individual or a group of experts who work in the cultural organization. When cultural organizations own digital archives, cultural values repositories, that are naturally organized and arranged in a way which enables them to be presented regularly in permanent digital exhibits. This strategy supports the cultural institution as well as the preservation of cultural heritage, which ensures that it must have criteria to help consumers differentiate it from other organizations. By registering its own domain name, the cultural organization can become distinctive.

Often the owners of trade secrets and business models are museums, archives and libraries that are mostly linked to the administration thereof, not so much managerial as intellectual property rights management, collection organization and exhibitions, the sharing and propagation of cultural values from museum assets, funding of public and private collaborations in which the cultural institution engages. The secret of good management is usually entirely dependent on the personal qualities of the cultural organization's manager. IP of cultural organizations shall also be known as databases managed or created by cultural organizations or machines. These are copyrighted objects, for which the so-called special "license" sui generis is given for (software may be protected as an invention in some countries).

Many intellectual property structures (museums) also use other public bodies, such as registration, to provide access to cultural values. Two important examples of these include museums which allow users, at fees (the British

Museum), to replicate those cultural values on the spot. The reproduction of cultural values for exhibitions, training or commercial purposes is another example. The licensing processes are typically subject to a strict law.

Not all cultural institutions are equipped to enable the use of their cultural values. It is important to have a redeveloped plan to approve their intellectual property, for people who believe that this is vital to their enterprise. In order to properly carry out the authorization and to safeguard the interests of both access providers and those searching it, the digitalization process must then form part of a strategy for managing intellectual property, owned by the museum, archive or library.

#### **II.VI. Digital management of the rights on cultural values:**

In the majority of cases, the decision of the correct cultural institution to digitize its cultural values is concerned with the application of the role of the cultural patrimony. Museums, museums and libraries are therefore often not given due consideration in digital repositories to security protections for the material submitted to digital platforms and to the existing dangers of unauthorized use and unethical practices which are not only violating the rights of their intellectual property, but also of any other party involved with digital processing. This can be avoided not by downloading low resolution images or limiting access, but by proposing that the organization of the cultural sector develop a system for the protection of digital rights.

Management of digital rights is a program that includes the development and implementation of different regulation, scan, and warrant or deny mechanisms for accessing to or use of digital content in a digital environment. The information management system has direct connections with the available software and with cultural value repositories, and should therefore be in accordance with the approach taken by the appropriate cultural institution for handling intellectual property. The knowledge management system will function in compliance with the restrictions on the use of intellectual property resources (free use of material for education, study and personal uses) and on limited time security and access to portions of the digital content in order to preserve the intellectual property rights of Museums, Archives or Libraries.

#### **II.VII. Intellectual property and digital databases of cultural values:**

##### **II.VII.I. Software and database creative industries:**

In the sector of creative economics, the creative software and databases are one of the fast-developing industries and therefore one of the nine key cultural industries. The industry's approach to copyright protection is one of the reasons for these developments. In fact, copyright rights can be gained through program and database security by cultural values in a derivative manner. The legislative gap in the protection of intellectual property over the cultural heritage itself is partially fulfilled in this regard.

Thus, both industries are primarily developed by safeguarding software and database as objects of intellectual property. Code and databases shall be proprietary where the code is called a creative work because of human imagination and is viewed as a software code in an objective way, in which the program is written. For the program itself and the embedded hardware, the intellectual property protection is given. The main thing is that concepts and values are exempt from the defense of intellectual property and are embedded in the software interface.

##### **II.VII.II. Databases copyright protection:**

As collaborative works of numerous non-protectable data and content, intellectual property data bases are protected. The protection of the intellectual property database is provided for the way that are compiled not for the

data or materials compiled themselves. The copyright holder of the websites is its owner from this point of view. In a few cases, when all are working with one another, it is the employer that creates the databases during the performance of tasks.

#### **II.VII.III. Databases sui generis protection:**

Databases that are qualitative and quantitative with substantial expenditure to obtain, validate or present information are entitled to sui generis security. The sui generis privilege shall be applied individually without consideration for the suitability of records to be protected by copyright but in respects that do not concur with this protection. Without further permission from the holder of the right, the legal user of sui generis protected databases may secondarily use their non-substantiary part. The disparity between the right holder and the copyright protection is the right one, who uniquely is not the publisher, but rather the buyer. Rights terms are less than copyright terms.

#### **II.VII.IV. Copyright issues regarding the cultural heritage databases:**

Cultural organizations which are public are developing and preserving several collections of cultural values. The copyright protection of created software and sui generis protection of the created data repositories, hence the authority who order and preserve it, are budgeted by the State, which means that “the Government” means the “investor”— the right holder. Intellectual Property concerns of the cultural heritage digitalization are therefore important. Typically an individual produces the applications or files, i.e. the “company” owns the patent if this issue does not have prior approval. In regard to the law on cultural heritage, national cultural patrimony is within public sphere, i.e. no security of intellectual propriety of any traditional elements exists in objects, and so only artisanal goods and folklore events are entitled to intellectual ownership rights if it is possible to define the writer or the artist. There are the intellectual proprietary rights of the performer and the rights of the researcher to intellectual property over the information collected.

In their museums and libraries as cultural bodies, the adoption of different values on intellectual property in their ties with state institutions may be required in order to address digitization-related problems:

- The legal certainty in their activities;
- Access means either within the premises of libraries, archives and museums or online availability;
- For born-digital works or works digitized by right holders this means getting permissions for access to works;
- For analogue works this means getting permissions for large-scale digitization and access;
- Legal certainty presupposes a solution for the so-called orphan works: unknown or non-locatable right holders and their works.

It should be taken into account, as exception of the provision for the right holder’s prior consent that it should be allowed to reprint orphan works, which have been made publicly available by publishers, educational establishments, libraries, and collections, film or audio heritage institutions and public services broadcasting organizations. The permit does, however, mean activities which for cultural heritage organizations are not directly or indirectly economic or financially beneficial but which accomplish public interest goals. The presence or absence of intellectual property, not only in so-calling content, but also in orphan works and those outside the print / out of company, and what their place in the public sphere is an important topic in developing libraries for cultural values. The national activities relating to

this topic are, to date, relevant to the European initiative and demonstrate that it mostly concerns books which are publicly available, i.e. which are not covered by IP.

In the case with non-commercial activities, the artistic institution, while usually under copyright, must acquire a permit for 'public digitalization' of works from specific rights holders. Cultural organizations are not owners of the copyright, but did not contain either abandoned works or non-trade works in their collections. Their use of the orphaned works or of non-commercial works could lead to copyright.

### III. CONCLUSION

Cultural heritage forms part of each society's history, and their customs and cultural values are seen as crucial to its cultural and economic growth. The study showed that intellectual property can some way preserve cultural heritage. Though cultural heritage it is generally regarded as a public domain, other issues of intellectual property pertaining to their use may need to be answered, so that in effect the inappropriate use of cultural heritage can be avoided. In fact, the development of digital cultural value repositories provides new ways to promote and preserve cultural heritage through the protection of intellectual property. Finally, in relation to the economic exploitation of cultural heritage, the function and influence of intellectual property are important. In this respect, it can be inferred that the cultural heritage is a key economic tool which is exceptional and should be used in full industrial terms as such, but with the security of intellectual property. Its economic potential calls for the development of sui generis IP rights. Cultural heritage must be preserved and promoted nationally and internationally by its digitalization for economic, cultural and social purposes.

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