

# Copyright Issues in Multimedia

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## ABSTRACT:

With the fast technological advances of the computer and the Internet, multimedia information is winding up progressively boundless. Individuals of all foundations can make, adjust and appropriate multimedia information around the globe. Multimedia has basically introduced another time of correspondence and data stream, which has significantly affected society. Creators have more chances to make content, explicitly in the multimedia position. Furthermore, the licensed innovation law assumes a key job in securing the estimation of multimedia works. Be that as it may, in actuality, it is difficult for the legitimate framework to adapt to changes in regards to the organization and substance of multimedia works. In this paper we address the idea of multimedia, the job of copyright, and the advancements that can be utilized to secure the copyrights of multimedia work. We additionally examine current issues on multimedia copyrights on the Web and present our recommendations to multimedia copyright assurance on the Web.

**Keywords:** Content; Copyright; Project; Multimedia.

## I. INTRODUCTION

Content learner support and certification can be considered the main ingredients for effectiveness in producing multimedia teaching materials meant for distance learning. In the computerized time, with the accessibility of various answers for copying and altering content as sound, video, picture, content, and so forth., it winds up fundamental the development of strategies and policies for a better management of concept and use of intellectual works, especially those related to multimedia teaching materials.

The intellectual property, in a law's branch perspective, is part of the intangible or incorporeal property; or in other words, what is invisible and intangible, including contractual, obligational, and intellectual rights. It is the branch of law that deals with all the intellectual creations of mankind.

In an increasingly digital world, where information becomes the base of the society, property right must be understood so that we cannot only respect the creations of others, but also protect ours. This concern has become more relevant from the moment the authors of this article had to manage groups of teachers and employees who were developing instructional materials in digital format, such as audio, video, text, hypertext and software with animations and simulations for specific projects in educational area.

During development processes, many questions came to our minds, such as the acceptable situations that one can use the works of other authors without previous authorization or the limit quantity of writings or recordings that can be reused as a component of another multimedia item. These and other questions are

presented throughout this text, especially those which contain aspects related to products for distance learning, which are essentially multimedia digital products.

Such inquiries drove the authors, who are right now associated with the administration of different initiatives, to play out a wide inquiry, talking with lawyers, lawyers, authors, specialists from abstract industry and numerous different experts, with a desire that it is conceivable to draw a legitimate line of direct to teachers' activity in development and/or use tasks of instructional materials.

Notice that the authors took an interest on a wide range of undertakings including multimedia creation and e-learning courses. These projects offered the opportunity to check many of the recommendations presented in this text. The first project that should be mentioned was undertaken by the São Paulo's State Virtual University (UNIVESP); in this case, different courses were launched in 2009 by the Department of Higher Education<sup>1</sup>. Another task that ought to be referenced is centered around digital substance creation: ConDigitais<sup>2</sup> is an activity of the

The result of this study is given below, and it intends to be a text that will eventually serve as an initial basis to be used by the authors of instructional materials, though not in any way replace the existing legislation, particularly the different interpretations in each country.

## II. THE INTELLECTUAL PROPERTY AND THE COPYRIGHT LAW

According to Paranaguá and Branco<sup>3</sup>, "... antiquity haven't met a copyright system as the one conceived on contemporary era ". Only in the sixteenth century licenses started to be granted to booksellers to publish certain books.

In 1710 it was published the notorious Statute of Anne (Statute of Queen Anne), which gave publishers the right to copy a given work for a period of 21 years.

Then, yet according to Manso<sup>4</sup>, other courses followed: the Criminal Code of 1830, Penal Code of 1890, the first Republican Constitution of 1891 (paragraph 626, art. 72), 496 Act of August 1, 1896, Medeiros Albuquerque Act on

January 1917, The 5988 Act of December 14, 1973 which ended up with the current 9610 Act of February 19, 1998. The 9610 Act "rules copyright, comprising that designation the author's rights and what is related to them," being nowadays one of the key references, although it is also important to consider in some cases the specifics of the

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<sup>1</sup> <http://www.abed.org.br>

<sup>2</sup> Amorim, J. A. ; Miskulin, R. G. S

<sup>3</sup> Paranaguá, P. ; White, S. "Copyright". Rio de Janeiro: Ed FGV,2009.

<sup>4</sup> Manso, E. J. V. "What is copyright

legislation applied to trademarks, software, etc..

In Brazil, unlike the United States and European Community countries that already have specific legislation on digital copyright, bills that address this issue are still being discussed by the Congress members.

According to the authors Freitas, Avancini and Castro<sup>5</sup> "... because there is no specific brazilian law that rules the use of material available on the Internet, teachers and educational entities refer to the Copyright Law (9610 Act of 1998), Computer Program Law (9.609 Act of 1998), as well as any other legal documents that provide for civil and criminal penalties for violators of intellectual property, and these were the rules that are being used to protect educational materials used in the learning ambience of distance learning."

When we checked the laws that refer to copyright, we found out an implicit exemption for the justified use of certain intellectual works (small portions) by educators in the classroom, without requiring a previous permission from the copyright owners.

With regard to copyright, it should be noted that rights management is a vast area that now includes aspects related to digital media. Moskowitz<sup>6</sup>, when dealing specifically with digital rights management highlights the difference between the more traditional properties, such as buildings and physical assets and intellectual properties, which refer to items that can generally be easily shared, causing problems already common today, such as piracy of digital products, more specifically music and movies.

Copyright is of a dichotomic legitimate nature, mirroring its double arrangement: Moral Right and Patrimony Right. According to Lima<sup>7</sup>, "the moral right is that one generated by the relationship between created thing / creator,

being directly linked to the person of the author, whose work is a sort of projection of his own personality." Thus, it is understood that this is a personalized, irrevocable, unpledged and absolute author's right. For example, an interior designer orders a painting to a painter to compose an environment, and determines the chromatic tones to be used by the artist. Once completed, the artist delivers the canvas, which is promptly paid by the designer. Contrary to what one might believe, the designer owns the moral right of the project setting, whereas the painting, even if customized is indefinitely the painter's property.

This assurance given to the painter (to be eternally the moral holder of the work) is exactly the so-called parenthood right.

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<sup>5</sup> <http://derin.uninet.edu/cgi-bin/derin/vertrabajo>

<sup>6</sup>"Introduction - Digital Rights Management." In: Zeng, W. & Yu, H. & Lin, C. (Editors). Multimedia Security Technologies for Digital Rights Management. Academic Press. 2006. ISBN 0123694760.520p.

<sup>7</sup>"Course on Intellectual Property for Designers". John Person: Ed New Ideas,2006.

Since the economic rights, according to Lee<sup>8</sup>, "is the result of the publication of the work, or communication of the work comes from the public both by the author as by those authorized by it." This refers to the monetary aspect of intellectual work and, unlike moral rights, may be transferred, assigned or licensed.

The discussions about "Digital Rights Management" (DRM) require for different reasons, a proper consideration of the context in which a work is produced or distributed. The term Digital Rights Management - DRM - has its origins in the combined efforts of some vendors, their marketing staff and some other industry analysts in the late 1990's<sup>9</sup>. In a general way, creators produce a work aiming to trade it and so they have the right to charge the copyright. On the other hand, in such situations where profit does not apply, it is expected from the users that the original author is quoted on the material to be distributed. Regardless being intended for commercial purpose, some rights are assured by the legislation to the author of an original work and, in this particular, it is reinforced due to the fact that some control over the creation of new works based on a particular original work is needed.

The copyright environment consists of three main aspects: rights (what can be protected by copyright) and exceptions (e.g. copies for private use or for public libraries); enforcement of rights (sanctions for making illegal copies and trading in circumvention devices), and rights management (exploiting of rights). In the online world, rights management may be facilitated by the use of technical systems called Digital Rights Management (DRM) systems<sup>10</sup>.

With the advent of the Internet, different file sharing services that render more and more difficult and complex the copyright control arise every day, resulting in a growing demand for specific technologies that allow the track and trace of works authorship through technological solutions such as digital watermarks. Even so, the internationally widespread concept of "fair use" creates additional challenges, since it is often not clear what could be understood as acceptable use. Based on this, Moskowitz<sup>11</sup> lists four main factors to be taken in account when determining whether the specific use of a work would be acceptable or not: (1) the purpose of the use, which includes differentiate commercial use of the educational use in specific contexts, (2) the nature of the original work, (3) the proportion or percentage of original work that will be used, and (4) the impact of the utilization of an original work generally to the potential market of such work, which would be replicated in entire or to some extent.

Moskowitz focused on that the assurance of what might be an adequate use is something unequivocally reliant on the unique situation, implying that by basically citing the original authors of a work would not be enough,

<sup>8</sup> Supra note 7

<sup>9</sup> M & T Books,2003.

<sup>10</sup>Kevorkian, S. "Understanding DRM Systems", IDC,2001.

<sup>11</sup> Supra note 6

suggesting that for each specific case the corresponding authorization were requested to the copyright holders. Such point of view results in various confinements to ventures including the production and/or the utilization of multimedia given that the production of new products that aren't 100% originals would require permits for the use of each cited or adapted work whereas the use of existing multimedia products would require permits for copying.

Also related to multimedia, Moskowitz<sup>12</sup> points out that consideration related to security should comprise certain aspects:

- (1) multimedia is easily compressible and transferable,
- (2) the material digitalization in the analogic format is increasingly fast and inexpensive, and
- (3) the manufacture of digital material has become cheaper, resulting in an increasing margin profit to the organizations but also at the same time allowing anyone who is not the copyright holders to copy in an uncontrollable way, what may reduce profit margins.

This author suggests that major economic sectors should be affected by the changes relatively to the convergence of the technological base to the digital base, because not only music and movies, but also books, articles and all kinds of materials are now more and more available in an electronic format through environments networks like the Internet.

### **III. WHAT IS PROTECTED BY COPYRIGHT LAW?**

Intellectual works are those created by human being and expressed or published by a particular communication media with the purpose of being known. All things being equal, a type of control moderately to access to such works is proposed, all the more explicitly on account of the presence of potential benefit. The Copyright Law, or Act No. 9610 from February 19, 1998 lists the types of intellectual works protected by copyright; however, an important remark shall be indicated: these are plainly illustrative samples, not the complete and definite list. Therefore, according to Gandelman<sup>13</sup>, "they are text, lectures, dramatic works, choreographic works, audiovisual works, photographic works, drawings, paintings, engravings, illustrations, maps, plastic works, translations with new intellectual creation, computer programs, compilations, dictionaries, among other possible works". Once it is known what types of copyrights are protected by the law, it's a matter of highlighting the necessary care that authors of digital and / or instructional contents should bear in their work.

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<sup>12</sup> Supra note 6

<sup>13</sup>Gandelman, H. "What you need to know about copyright

## IV. WHAT IS NOT PROTECTED BY COPYRIGHT LAW?

The Copyright Law, excludes from its protection, in its Article 8, various activities and common facts. According to Galdelman<sup>14</sup>, they are: ideas, normative procedures, methods, systems, projects and even the mathematical concepts in themselves, diagrams, plans or rules that are intended for game development; business or straightforward mental acts; clear structures, writings of authority acts; data for regular use; confined names and titles and business or modern misuse of thoughts, data or information accessible in an original work.

Computer programs are protected by Act No. 9609 from February 19, 1998 (Article 2).

- **A Brief Orientation to Authors of Distance Learning Content**

Aiming to guide the authors of digital content and / or copyrights, especially for distance learning in Computer Science, here follows some suggested actions and care that authors should take during the development of their work. Perfect and adequate circumstances are recommended, and those for which a past authorization is indispensable.

- **Ideal situation: the public domain and related terms**

In the distance learning content development, the ideal is to use third party works that are distributed under CC licenses (Creative Commons - <http://www.creativecommons.org.br/>) or those already in the Public Domain. Pictures, for example, can be found at web portals like Flickr (<http://www.flickr.comcreativecommons/>), where more than 20 million are available for download or even to create derivative works. Additional examples of websites that use CC licenses can be found by accessing internet directories of free access such as that maintained by the organization responsible for developing standards of Creative Commons licenses ([http://wiki.creativecommons.org/Content\\_Directories](http://wiki.creativecommons.org/Content_Directories)).

Works whose latest version is too old and / or whose authors have died for more than 70 years are also of public domain. Below follows some examples for a better understanding of this problem.

- **Acceptable situations: parts of works**

The Brazilian legislation has not yet been refreshed to the point of thinking about every conceivable case, especially identified with moral, duplicate, ownership and appropriation rights by means of Internet. Thus, lawyers use to referring to analogies when dealing with cases not comprised by any specific law. In the case of teaching materials produced in multimedia such as software, hypertext or videos, they can nearly always be seen as educational materials for nonprofit academic work. In these cases, it is permitted by the law the use of

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<sup>14</sup> Supra note 13

parts of third parties works, provided that such use does not generate losses to the holders of moral copy, ownership and distribution rights.

Whatever the case, the source where the work was obtained should always be quoted, with clear mention to the artist's name, year of publication of the work, etc..

To make use of parts of works of others without asking permission, it is suggested to use the minimum possible, such as 10 seconds of a movie or 10 seconds of a song.

*Example 4: a multimedia product can quote a snippet of a movie, up to 10 seconds, provided that the source is quoted and that is not possible to identify which are the actors; if the actor can be visually identified, and he is still alive, a previous permission should be requested, at least for the actor.*

*Example 5: A product can quote a passage of a lyric, up to 10 seconds, provided that the source and the author of the music are duly quoted.*

With regard to texts, the rules tend to be more flexible, provided that the complete work is never used without previous authorization, clearly stating in the quotation who is the original author of the work and clarifying what is the careful section that was copied

*Example 6: If a poem is published on the Internet, it is acceptable to use a small excerpt from that provided that the source and date of access to this source are quoted.*

*Example 7: If a book contains texts of interest for someone, the quoting of a part within the new multimedia product is acceptable provided that the source is mentioned.*

For cases where the use of a large part of a work is intended, or even the complete work, a previous permission is required, as described below.

- **The situation that requires permission: use of complete works**

The enormous issue alludes to the utilization of complete works, in light of the fact that in this particular case a past authorization from the copyright holders is required.

Examples of complete works:

- Full text of a poetry.
- Audio or video with the declamation of the full text of a poetry.
- The full lyrics of a song.
- Audio or video with sound related to the full text of a song.
- Texts in general, even if they have been published on the Internet.

- Covers of magazine, books or newspapers.
- Comics strips, even with just one frame.
- Photography, drawing, schematic representation or a diagram.
- Logos outwardly showing the brand name of items and related administrations.
- Advertising piece that shows up as publicity in a magazine, book or newspaper.

In all cases in which the total outsider works are not in the public domain, a past authorization is compulsory both for the utilization in the particular multimedia product, as for the subsequent distribution in the media such as Internet, TV, CDs, DVDs, etc...

It is advisable the avoidance of a direct citation of names of persons involved in controversial cases or situations affecting their image. It is anyway conceivable to make reference to the history, however without legitimately referencing the names of individuals or organizations included, maintaining a strategic distance from additionally the introduction of pictures of living people without acquiring their past permit.

Regarding comic strips, one possible solution is that it is redone, based on the original comic strip, using the software or specific portals., such as StripGenerator(<http://stripgenerator.com/strip/create/>), and so the original story will only and solely be used as a basis for a new strip.

Almost all projects in the public scope do not have funds to pay for use permission of third party works and / or reuse with view to create derivative works. In these cases, if the copyright holders require any form of payment, the option for not using the product work in multimedia design, especially if this product is intended to be digitally distributed should be done in this case.

Except for Public Education Institutions, considering their favorable scenario of educational non-profit products, although in some cases restrictions on distribution and / or creation of derivative works may apply.

## V. OUR PERSPECTIVES AND SUGGESTIONS

As we pointed out in Section 1<sup>15</sup>, copyright laws and cases were developed based on traditional copyrighted work. It is difficult to apply copyright laws to multimedia because multimedia is relatively new and is still evolving. Therefore, a new model is being pursued to protect copyright by multimedia. A well-devised copyright model and technology should overcome the disadvantages of stretching current copyright laws.

Because computer technology has advanced greatly and it is important to protect copyrighting rights, it is important to enforce stringent rules on copying and distributing, as described in Section 2. Copyright laws and cases have been mainly developed for large manufacturers that have a significant economic presence, such as movie studios and

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<sup>15</sup>The Copyright Act, 1957

record labels. In SNS, the creation, distribution, and modification (derivative work) of copyrightable work happen continuously. It is therefore imperative that we identify and protect copyrights for both original and derivative work. The first step in this process is identification. The need for legal protection for multimedia may eventually carry over to individuals in the near future as SNS becomes a prevailing life standard, since SNS makes it easy to distribute creative works.

The following are components of a future agenda for multimedia copyright protection.

- Copyright protection for multimedia should be with afterward action between the parties.
- Terms and conditions of SNS-reflection of legal reality about copyright (Facebook, YouTube, Pinterest).
- Law must be a binding decision for each specific case in the real world - subject to shifts under totality circumstances.
- Well-devised protocol will contribute to law enforcement and generation of creative works.
- The best method to control multiple numbers of individual users overall and to prevent legal chaos.
- Effectiveness of warning: Warning is not a binding disposition but a sign of possibility of prosecution if certain rules are not observed. Needs to be supported by law practice and the cooperation of economic entities is required. Warning enhances the general public's recognition of copyright for multimedia. However, warnings should not discourage creative activity.
- International nature of SNS: subject to each nation's jurisdiction rather than copyright, as it is very difficult to be sufficiently unified; while computer technology is no. law itself, an internationally unified approach will enable reasonable and efficient enforcement of copyright for multimedia.

We also suggest requirements for protocol that would be implemented.

- Design requirement of network protocol.
- Rationale for legislation and network protocol design: facilitate identification of an individual's rights and recognition of such rights by the public.
- Task for computer engineering: to facilitate identification of author and work/to facilitate checking the range of distribution of work in terms of time and space.
- Design computer (programing, network, hardware) protocol based on its own logical model to accommodate future needs, which means "technology can lead law."
- Application fields of the protocol (creating, copy, distribution, use, modification of multimedia).
- Not just limited to technical means that can identify multimedia work by specific manufacturer/no. limited to multimedia made by major corporations and distributed through few firmly established sales channels/include data filed that helps proof later.

## VI. CONCLUSIONS

The Internet, just as computer innovation in general, has changed the creation, alteration, and dispersion of multimedia work. Such changes have thusly offered ascend to the need for a lawful framework that can deal with the esteem and unpredictability of multimedia. While copyright laws, which manages articulation of a work, has been utilized to manage this errand, customary application examples of copyright can't be straightforwardly connected to multimedia. This has thusly caused strain and complexities. New copyright models for securing multimedia are being grown, however it will definitely require significant measures of investment and exertion.

Multiplication of SNS has not just expanded the volume and unpredictability of multimedia, yet it has additionally moved the focal point of multimedia creation from real organizations to people. Previously, copyright law and computer innovation have basically centered around the assurance of multimedia created by significant market influencers. A noteworthy change in the copyright assurance outline requires an answer for a large number of individual clients as opposed to few major multimedia companies.

Computer innovation may assume an essential job for deciding an answer. A network protocol that incorporates copyright related information, for example, the author(s), substance and circulation, will give a basic framework that gives exact and effective copyright implementation for multimedia and empowers advancement of multimedia work. Many related legitimate variables, for example, copyright, privacy, the right to speak freely and security, ought to be considered in concocting such a protocol