

STUDY ON THE AUDIOVISUAL LEGAL FRAMEWORK IN LATIN AMERICA

PART 5: THE IDENTIFICATION AND USE OF METADATA IN AUDIOVISUAL WORKS

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DISCLAIMER

This study was conducted as part of the Pilot Project on Copyright and the Distribution of Content in the Digital Environment of the WIPO Committee on Development and Intellectual Property (CDIP). This document is not intended to reflect the opinions of the Member States or Secretariat of WIPO.

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1 INTRODUCTION

This report is part of the Study on the Latin American Legal Framework and the Distribution of Audiovisual Content in the Digital Environment, a key part of the Pilot Project on Copyright and the Distribution of Content in the Digital Environment, presented by Brazil to the Committee on Development and Intellectual Property (CDIP) of the World Intellectual Property Organization (WIPO) (CDIP/22/15 Rev.), hereafter referred to as “the Project”. In particular, the Project is intended to increase awareness of existing national standards among creators and stakeholders, and to consider the questions currently being raised about copyright and related rights in the digital audiovisual market in the participating countries: Argentina, Brazil, Costa Rica, Ecuador, Peru and Uruguay.¹

Once the audiovisual work has been produced and it begins to be exploited, in any format and through any distribution channel, it is important to be able to identify it at different times and for various purposes; for example, so that holders can exercise their rights. In a global digital environment that enables audiovisual works to be used simultaneously on different platforms by distributors and users in any country, it is essential that such uses are monitored accurately.

This report aims to understand and explore possible means of resolving the five basic problems relating to information and metadata: a) delays in compiling and uploading data; b) lack of data; c) loss of data; d) contamination and inconsistency of data; and e) volume of data.² In particular, we will focus on simplifying the management of information on audiovisual works in order to reduce the costs related to content distribution. Audience growth and an increase in quality products require the expansion of distribution channels, which can entail a loss of control and income. Moreover, distribution through multiple platforms requires information and databases to be interoperable.

The absence of information on the movement of works is a more pressing problem for small producers in the countries in this Project. While the digital market can enable a work to be enjoyed worldwide, via dubbing or subtitling, in reality it is very difficult for the public to access it without adequate information. Where applicable, if the work was enjoyed in numerous jurisdictions, a lack of information would prevent the rights holders receiving due compensation for that use.

This report will be focused on the data and metadata of audiovisual works that are professionally produced and distributed. This excludes user-generated content (UGC), even though such content can be considered audiovisual work, as it does not constitute a production in the technical commercial sense.

2 IMPORTANCE OF INFORMATION IDENTIFYING THE AUDIOVISUAL WORK

¹ The Study on the Latin American Legal Framework and the Distribution of Audiovisual Content in the Digital Environment is formed of the following parts: Part 1: The OTT business model in Latin America; Part 2: Study on the legal framework in Latin America; Part 3: Practical aspects of the authorship of foreign audiovisual works; Part 4: Contractual practices in the audiovisual sector; and Part 6: Methods of alternative means of dispute resolution applied to OTT business models.

² Cf. Colitre, Bill. “Metadata for Rights Management: A Guide for Legal Practitioners”, in La Polt, Dina and others (eds.) *Keeping It Honest: Transparency and Legal Issues in the Entertainment Industry*. London: International Association of Entertainment Lawyers, 2019.

As was already established in Part 1 of this Project (on the Over-the-Top (OTT) business model in Latin America), the basic asset and primary competitive advantage of any platform is its content, i.e., audiovisual works and other programs that make up its offer.³ This is generally presented as a catalogue, with basic information that enables consumers to choose a film, a particular episode of a series, a documentary, a television (TV) program that has already aired or a video clip. This is why, as was highlighted in Part 4 of this study on contracts, requirements for metadata consistency are normally an obligatory part of contracts with Video on Demand (VOD) platforms.

Given the tremendous amount of content available, it is crucial to have appropriate information. In the digital environment, the content offer is enormous, whether considered in terms of either its actual or potential size. From the consumer perspective, a platform has a range and volume of content that makes it difficult for users to find exactly what they are looking for or prefer. The searches and choices of each user are, in turn, the raw material for the algorithms that provide feedback on consumption and suggest new options by genre, artist and language.⁴ Information on consumption also makes it possible to personalize the advertising that users receive, in the case of Advertising-based Video on Demand (AVOD) platforms, or to enable platforms to target advertising or sponsors to allocate it, in the case of cable operators that use TV Everywhere.

Because of the variety and size of their offers, platforms, meanwhile, require relevant information to identify and organize their offers, which are part of their service and a condition for success. For the producer, the quantity and range of content also raises the question of how to use the information appropriately, as producers themselves have a varied offer in competition with other rights holders, which is why they try to give greater visibility to their own content and thereby obtain public support.⁵

Moreover, the same content can be, and usually is, available on more than one platform at once. Information also plays a relevant part here in encouraging competition and interaction between the various platforms, both as a service to the public and to enable producers to decide on the most appropriate window of availability. Similarly, information is also needed to identify the rights holders of the desired content and to discuss the inclusion of the work in the catalogues of platforms and broadcasting organizations. These problems are not unique to the audiovisual industry, but because it is an industry that has developed more recently than others, such as the music industry, the situation is more complicated.⁶ This is why the role of aggregators is so important to the organization of information and metadata.

Faced with these problems, it appeared that big data and data mining technologies would offer a feasible solution. It would indeed be one if data on works, catalogues and repertoires were standardized and easily accessible. Information on all content and the organization of data,

³ However, together with content, distribution has become a reason for success. According to one academic, "Content is the king and distribution is the King-kong", as regards the relationship between content, distribution and user preferences, cf. Valor, Josep. "The Media Landscape, from Showtime to Screen time". Barcelona: IESE Business School, Universidad de Navarra, 2018. Web. <https://dx.doi.org/10.2139/ssrn.3302030>.

⁴ Cf. Covington, Paul and others. "Deep Neural Networks for YouTube Recommendations" in *RecSys '16: Proceedings of the 10th ACM Conference on Recommender Systems*. New York: Association for Computing Machinery, 2016. Web. <http://dx.doi.org/10.1145/2959100.2959190>. See also: Herrero Subías, Mónica and others. "Recommendation Systems In the Spanish Audiovisual Market: Comparative Analysis Between Atresmedia, Movistar+ And Netflix." *UCJC Business and Society Review*, Fourth Quarter (2018). Web. https://www.researchgate.net/publication/332033476_Online_recommendation_systems_in_the_spanish_audiovisual_market_Comparative_analysis_between_atresmedia_movistar_and_netflix.

⁵ The information that the platform makes available to the public can have a significant added value. For example, Amazon Prime Video has the X-Ray function, which enables users to see, in real time, the music being played or the actors featured in a given scene. Cf. <https://www.amazon.com/primeinsider/video/pv-xray-tips.html>

⁶ Cf. Schaefer, Martin. "Why Metadata Matter for the Future of Copyright." *Kluwer Copyright Blog*. November 27, 2020. Web. <http://copyrightblog.kluweriplaw.com/2020/11/27/why-metadata-matter-for-the-future-of-copyright/>.

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both for the offer and for the actual performance of works, is complex. As was already analyzed in Part 2 of this study on the legal framework, the exclusive rights to authorize or prohibit the exploitation of an audiovisual work are managed individually and are vested in the producer. However, there is not always one single rights

holder as, to apply the principles of the Independence and territoriality of rights, some rights may be transferred for different territories or modes of exploitation, either permanently or temporarily.⁷

Each business model requires prior authorizations and contracts, which include clauses that, in many cases, establish payments in line with the rate of use of the audiovisual works available on OTT platforms. If the licenses are individual, for one or more works, they must be identified in advance. In such cases, the rights holders of the audiovisual work indicate which works are subject to authorization, together with the specific identification of the means, formats and territories in which the works can be distributed, including schedules and numbers of broadcasts in some cases. Information and metadata are therefore also a solution to problems relating to the chain of title and the uncertainties surrounding ownership and the scope of exploitation.

In addition to the interests of producers, the public and platforms in using information, exclusive rights and simple collective management remuneration rights must also be taken into consideration. Alongside the producer's rights over the work, there are also the rights of other holders, such as scriptwriters, directors or soundtrack composers, or even audiovisual or musical performers.⁸ These include, for example, the rights for the retransmission of works contained in on-air signals, which are the responsibility of each country's collective management organizations (CMOs). These rights depend on each jurisdiction, according to how their implementation has been established. As a result, in Uruguay, until November 2019, the scriptwriters and directors of audiovisual works did not have rights of remuneration as they were presumed to be assigned to the producer. With the amendment to Law No. 9739, the above-mentioned persons, even if they have transferred rights to the producer, maintain a remuneration right for public communication.⁹

⁷ Territoriality is not only based on the principle of maximizing earnings through market fragmentation, but also on regulatory constraints and the cultural preferences of the public. Cf. Valor, *op. cit.*, p. 21.

⁸ Cf. Xalabarder, Raquel. *International Legal Study on Implementing an Unwaivable Right of Audiovisual Authors to Obtain Equitable Remuneration for the Exploitation of their Works*. CISAC, 2018, p. 9. Web. <https://www.cisac.org/Media/Studies-and-Reports/Publications/AV-Study/AV-Study>. See also: Despringre, Cécile and others. *Audiovisual Authors Rights and Remuneration in Europe White Paper*. 2nd ed. Society of Audiovisual Authors, 2015. Web. <https://www.saa-authors.eu/file/43/download>.

⁹ Eastern Republic of Uruguay, Law No. 9739, Art. 29, in its most recent version, "The authors of musical works or composers will have the right to receive remuneration for the public communication of the audiovisual work, including the public screening of cinematographic films, as well as the rental and sale of material supports". It also independently establishes the right to remuneration on equal terms in favor of directors and scriptwriters. In order to exercise this right, directors and scriptwriters can form a collective management organization under Law No. 9739, of December 17, 1937, in the wording given by Law No. 17.616, of January 10, 2003, enabling the delegation of collection of this remuneration by another creator collective management organization. Remuneration for the authors of musical works or composers, as well as for directors and scriptwriters, shall be sovereign and inalienable. When the audiovisual work is published, communicated or distributed to the public by the producer in a non-commercial, non-monetary manner, no such remuneration shall be payable.

As far as these rights are concerned, the consistent use of information makes it possible to distribute rights in a quicker, more reliable and more effective manner, in particular for CMOs and other collection bodies, as it

If administrative costs increase owing to a lack of reliable information, collection may be uneconomical.

facilitates the integrity and knowledge of the repertoire being managed.¹⁰ This is of particular importance when the sums accrued for the disparate exploitation of a work may be small in each territory, but cumulatively significant. If administrative costs increase owing to a lack of reliable information, revenue collection may be uneconomical. Because of this, a desirable outcome of the consistent use of information could be the specific allocation of the royalties collected and a reduction in “unidentified” funds when a platform makes payments without indicating the source of the income and cannot identify the audiovisual work to which it should be attributed. No less important is the usefulness of having appropriate and consistent information to prevent or resolve claims of potential double payments, which may be made by platforms that have to remunerate rights holders in different territories for the same work.

For the use of works on VOD platforms, the information is therefore relevant in terms of both individual management rights and collective management rights. In the case of blanket licenses, the rights holders or CMOs that represent them must provide information on the works included under their management, including in cases of extended collective licenses.

In this way, depending on the type of contract, the OTT platforms as users must provide information on the actual use of works. Even when the audiovisual works are owned by the same platform or the rights have been fully acquired, they must have information on the actual use of the works in order to inform the CMOs handling collective management rights of authors or performers.

Information should be segmented by territory as these collective management rights are managed and distributed on a territorial basis, in the same way as multi-territory licenses. The data identifying each audiovisual work in a catalogue, and its rights holders and royalties shall be used to manage the collection and distribution of those royalties, depending on the various uses and distribution platforms and considering each territory independently. The information therefore becomes essential to the proper use of the catalogue: irrespective of the business model, the rights holders should receive the royalties earned worldwide for any type of authorized use.¹¹ The situation is more complicated when a platform has different sources of income as the royalties should take all distribution channels into account.¹² This is why some advocate for greater transparency of information on the use of works and their remuneration in the digital environment.¹³

¹⁰ The Professional Rules of CISAC, for example, state that CMOs “shall base its distributions on actual usage of Works or, if not practicable, on the basis of a statistically valid sample of actual usage of Works” (#18.a).

¹¹ This also applies to content generated by the same user (user-generated content) when it uses third-party works, as is the case with music on Tik-Tok, Instagram and other social networks or platforms.

¹² As regards the trend for vertical integration but with a concomitant diversification of user options, cf. Vollmer, Christopher. “The Revenue Stream Revolution in Entertainment and Media.” *Strategy+Business*. PwC, 2018. Web.

https://www.strategy-business.com/media/file/sb91_The_ - Revenue_Stream_Revolution_in_Entertainment_and_Media.pdf. This diversification of the options made available to the user by a single provider has been called a “multi-platform strategy”. Cf. Doyle, Gillian. “From Television to Multi-Platform. Less from More or More for Less?” *Convergence: The International Journal of Research into New Media Technologies*, 16.4 (2010). DOI: 10.1177/1354856510375145.

¹³ In this regard, it is with mentioning the proposal presented to the WIPO Standing Committee on Copyright and Related Rights by the Group of Latin American and Caribbean Countries at the initiative of Brazil. This stated that there should be “analysis and discussion of the role of companies and corporations that make use of protected works in the digital environment and their way of action, including the verification of the level of transparency on business and the proportions of copyright and related rights payment to the multiple rights holders”. WIPO

Information is also relevant in cases of unauthorized use, whether isolated events or habitual acts of piracy. It should be possible to identify a work being used illegally to request that the unlawful use cease or to claim the corresponding compensation. Indeed, legal systems that have notice and take down mechanisms agree on the need to identify the work and its ownership in order to suspend or remove the allegedly infringing content.¹⁴

The identification of works has an additional benefit of facilitating a comprehensive knowledge of cultural heritage, as analyzed in the study on the public domain in this Project. Audiovisual works in the public domain constitute a relatively recent but growing problem as new technologies make it possible to digitize and access historic content. There is also the complicated situation of orphan works; although they may be in the private domain, they are unclaimed and it is not possible to identify their holders, thereby making it difficult or even impossible to distribute or exploit them.¹⁵ Information on works is also important for compliance with regulations, such as age classification obligations for content or the ratings issued by monitoring bodies, or even for providing required information on “audience shares”.

2.1 INFORMATION ON AUDIOVISUAL WORKS FROM THEIR CREATION AND ITS DIFFERENT USES

As has already been indicated in the other reports in this Project, digital technologies have transformed the value chain and distribution logistics of audiovisual works. From the creation and post-production of content to distribution and consumption, new opportunities have arisen for all interested parties, including a public keen to access content at any time and in any place. However, these opportunities also bring challenges, such as more complex interactions within the value chain and an explosion in the amount of content available. The digitalization of catalogues from the analog era is also an important issue, because the “long tail” of exploitation of these works stretches over time and space¹⁶. The same can be said of automatic subtitling systems that make it possible to access new markets for a low cost, despite the imperfections of the end product.

As indicated in Part 2 of the study, during negotiations on exploitation of the content, the producer needs to show the chain of title of their work. In Case Study 5 on rights clearance, the producer is responsible for proving ownership of the final work, which also includes the authorization or transfer of the authors of original works that are incorporated into the audiovisual work or allow it to be produced, such as the rights of scriptwriters, the contract with the director or composer, or authorizations for synchronized music, as well as the authorization of the artists responsible for the original music, including orchestra conductors and other vocal or instrumental performers. The same can be said of the “tax clearance” of actors’ unions and other participants that contribute to employment. If applicable, a certificate of compliance from the financial or promotional body shall be required. In the case of Argentina, for example, the National Institute of Cinema and Audiovisual Arts (Instituto Nacional de Cine y Artes

SCCR/31/4, December 1, 2015. This was addressed in Article 19 of Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market.

¹⁴ For example, Section 512(3) of the Digital Millennium Copyright Act in the United States of America. Cf. WIPO SCCR/35/4, p. 43.

¹⁵ Cf. van Gompel, Stef and Hugenholtz, P. Bernt. “The Orphan Works Problem: the Copyright Conundrum of Digitizing Large-Scale Audiovisual Archives, and how to solve it.” *Popular Communication: The International Journal of Media and Culture* 8.1 (2010): pp. 61-71. Web. <https://ssrn.com/abstract=1986876>.

¹⁶ The term “long tail” refers to the environment in which digital distribution channels enable companies to promote and sell a greater variety of products than would have been possible through physical channels. As a result of this greater variety of products available for sale, it would be expected that the distribution of sales would move towards a wider variety of successful products. Cf. Kumar, Anuj and others. “Information Discovery and the Long Tail of Motion Picture Content.” *Management Information Systems Quarterly* 38.4 (2014): pp. 1057-1078. Web. <http://dx.doi.org/10.2139/ssrn.1871090>.

Audiovisuales – INCAA) issues a decision in the subsidy or credit file with the final rating of the audiovisual work. In Brazil, it is necessary to request the registration of the work with the National Library and the “Brazilian product number” from the National Film Agency (Agência Nacional do Cinema – ANCINE) in order to receive funding.

All of these legal instruments together constitute the “documentation” that required of the producer when concluding exploitation contracts that, while often called “transfers of rights”, are, in reality, authorizations for the exclusive exploitation of the work, restricted to specific uses, in a single territory and for a specific period. This can be for the original work or an adaptation.

With the audiovisual work completed, and in the post-production stage, it is time to introduce the information that identifies the work and everyone involved in it, in all formats: MPEG, Windows Media, DVB ATSC and MXF. The information remains embedded, inter alia, in physical media, digital flows and digital files. The best practice is for all of the data to be integrated through the use of universal identifiers, as the potential monetization of this content through an increasing number of distribution channels requires standards to be used and systems to be interoperable. Interoperability is defined as the ability of a system or computer network to interact, exchange and use information with an independent and external system or network. This is why it is necessary to have a widely-adopted industry standard for all audiovisual works and for it to be used to manage information by all actors in the ecosystem. The universal identifier should be used in exploitation contracts, together with the title of the audiovisual work.

The use of universal identifiers presents various benefits, such as:

BENEFITS OF USING IDENTIFIERS

- 1) These numbers can be indicated to broadcasters when a film or series is licensed to a broadcasting organization in order to make reporting more precise by avoiding errors in manual data entry;
- 2) When audiovisual works are delivered to platforms and digital distributors, identifiers include the lists of works available for licensing and their metadata in order to enable automation and reduce the risk of operational errors;
- 3) They facilitate the tracking of deliveries and communications to and from post-production houses and subtitling and dubbing service providers;
- 4) They provide advisors and suppliers, such as audience meters, with metadata on the cast, synopses and broadcast times;
- 5) They allow repertoires to be created more quickly and accurately, especially when this requires the registration of rights with CMOs;
- 6) When information related to the music in the audiovisual work is uploaded, they facilitate monitoring of the rights of authors and musical performers;
- 7) They individualize works in distribution and licensing contracts; they manage the content of databases to automate the display and exchange of data;
- 8) They track the performance of the audiovisual work in each window and compile statistics;
- 9) They facilitate the management, discovery and licensing of the catalogue and contents, in particular for small and medium-sized productions;
- 10) They can facilitate the identification of content illegally distributed online.

The more uniform the available information and the wider the use of universal identifiers is, the greater the consistency of information and the ease of rights management will be, as these identifiers give rise to metadata that allow the catalogue to be managed. The insufficient or unsatisfactory management of metadata leads to a lack of information; they therefore cannot be interoperable and do not allow integration or scaling, creating data islands, which is made worse by the confidential management of information. This, in turn, can lead to both duplication in the management of rights and to the absence of such management owing to contracts that are not properly reported. With content enjoying longer and more complicated life cycles, information must be reliable and accessible in real time.¹⁷

2.2 WHAT INFORMATION IS NEEDED TO MANAGE AUDIOVISUAL WORKS?

Historically, there has not been a universal standard for compiling and reporting data on audiovisual works. This is partly because of the lack of compulsory registration of works, derived from the principle of the absence of any formality in Article 5(2) of the Berne Convention for the Protection of Literary and Artistic Works. It is also necessary to consider the principle of the territoriality of rights, under which each country has its own mechanisms for proving ownership of a work.

¹⁷ Cf. Mindtree, "Rights and Metadata Management for Media"; a whitepaper available at: <https://www.mindtree.com/about/resources/rights-and-metadata-management-media>.

As a result of this historical process, the available information about audiovisual works differs from territory to territory and depending on each “window”, in accordance with the age of the industry and the availability of resources in each jurisdiction. However, there is some consistency in the need for works to be uniquely identified in the physical distribution market, as the international exhibition of cinematographic works requires an accurate identification in contracts and with regulatory bodies. The title of the film was always the basic means used by producers, which led to two problems: homonymy and the need to change titles in line with the territory where the film was exhibited, whether for idiomatic, commercial, cultural or trademark-related reasons.¹⁸

Information on the ownership and rights of an audiovisual work at the international level was the subject of study and multilateral legislative activity undertaken by WIPO long before the advent of the digital environment, achieving an outcome that remained incomplete, namely the Treaty on the International Registration of Audiovisual Works (Film Registration Treaty - FRT).¹⁹ This Treaty envisaged the establishment of an International Union, created an International Register and acknowledged the evidentiary value of the registration records (Article 4)²⁰. The aims put forward by the FRT remain strikingly relevant. These can be seen in its Preamble: 1) to increase the legal security in transactions relating to audiovisual works; 2) enhance the creation of audiovisual works and the international flow of such works; and 3) contribute to the fight against piracy of audiovisual works.²¹

The aims put forward by the Film Registration Treaty (FRT) remain strikingly relevant.

As regards the subject of this study, Article 3(4) of the FRT establishes that registrations in the database may be consulted publicly, in accordance with the procedures and content of Article 7. The Treaty has been signed or acceded to by 24 countries and ratified by 14 since it entered into force on February 27, 1991. However, at the meeting of the Assembly of the FRT Union in 1993 it was decided that, until the Assembly itself took any other decision, the application of the Treaty would be suspended. At meetings of the WIPO Assemblies in 2000, it was decided that the Assembly of the FRT Union would not be recalled unless there was an express request to do so.²²

It therefore makes sense for there to be concerns about the consistent identification of audiovisual works from a legal, commercial and management standpoint. The legal reasons, including identifying the right holder in a given territory and ensuring certainty of the rights under exploitation, are also important for having recourse to legal remedies against piracy.

¹⁸ Cf. Negro Alousque, Isabel. “La traducción de títulos cinematográficos: ¿adaptación o creación?” from Proceedings of the XXVIII International Congress of the Spanish Association of Applied Linguistics (Asociación Española de Lingüística Aplicada). Available in print: ISBN 978-84-8158-479-0.

¹⁹ Adopted in Geneva on April 20, 1989, available at: https://www.wipo.int/export/sites/www/treaties/en/documents/other_treaties/frt-treaty.pdf. For a detailed analysis of its provisions, cf. WIPO. *Records of the Diplomatic Conference for the Conclusion of a Treaty on the International Registration of Audiovisual Works*. Geneva: WIPO, 1990. Publication No. 343 (E). Web. https://www.wipo.int/edocs/pubdocs/en/wipo_pub_343.pdf.

²⁰ Ficsor, Mihaly. “El nuevo Tratado de la OMPI sobre el Registro Internacional de Obras Audiovisuales” in *I Congreso Iberoamericano de Propiedad Intelectual - Derecho de autor y derechos conexos en los umbrales del año 2000*. Madrid: Ministry of Culture, Spain, 1991: p. 761 *et seq.*


²¹ Cf. Kovacs, Eva F. “International registration of audiovisual works: a new weapon against piracy.” *Entertainment Law Review* 2.4 (1991): pp. 105-116. Print.

²² Treaty status available at: https://www.wipo.int/export/sites/www/treaties/es/documents/other_treaties/frt-parties.pdf

From a commercial standpoint, in the analog environment, the most important source of revenue for audiovisual works has always been the box office returns from theatrical exhibition in cinemas. In this window, the exhibitor must inform the distributor of the number of tickets sold and the total income. The exhibitor may be obliged to do the same for a film promotion body, depending on the country.²³ In addition, in an analog environment, information on audiovisual work was and continues to be highly relevant to the activities of broadcasting organizations. Although broadcasting is a primary act of exploitation where, generally, it is producers who authorize the use of their work in the program-carrying signal, information must also be gathered on the retransmission or rebroadcast of these signals, and other rights holders must be informed about royalties from public communication.

The question that this report seeks to answer for the digital environment concerns how new box office returns are measured and reported. In the case of information available on OTTs, the situation varies as each platform, in line with the business model, has different catalogues, which is managed in accordance with its needs.²⁴ Majority ownership or exclusive content models, such as those of Netflix and Disney+, organize information around different parameters to those that operate under licensing or with advertising. In Part 1 of the study, on the OTT business model, it became clear that the most critical area concerns Transaction Video on Demand (TVOD) where consumption occurs through individual payment for each item of content. Something similar occurs with AVOD, where it is becoming necessary to pay remuneration for the number of views proportional to the amount of advertising watched and the traffic generated by this content. In contrast, with Subscription Video on Demand (SVOD), producer reports can be less detailed as, generally, the platform has taken the risk of investing in producing content or obtaining rights. Lastly, in TV Everywhere models, while reports are not generally issued to the producer on the specific rate of consumption, remunerations are indirectly linked to the audience as the value of each second of advertising and the value accumulated during the period reflects the tastes of the public, as demonstrated in the rating.

In terms of the collective management of rights, the lack of regional consistency in information affects revenue collection, distribution and reciprocity. Moreover, the varying levels of maturity of collective management in each country, as well as between CMOs in the same territory, can lead to insufficient organization and availability of data. Regional and national ecosystems function at different speeds. When it concerns the collection of royalties for public communication, the information gap between territories is the product of various factors. In some cases, the CMO may be relatively new and it is broadcasting organizations that begin revenue collection as they have a mechanism that is recognized more widely at the international level.²⁵ In this window, in particular, it is not usually necessary to have a detailed repertoire to collect revenue, although it is to distribute it. This is why the enormous effort required to have a comprehensive and integrated database gives rise to progressive implementation, in view of the difficulties and gradual nature of establishing a new body. It should also be mentioned that the rights holders, in many cases, do not understand the need to register their works and keep their



It therefore makes sense for there to be concerns about the consistent identification of audiovisual works from a legal, commercial and management standpoint.

²³ INCAA in Argentina, ANCINE in Brazil, ICA in Ecuador, DAFO in Peru, ICAU in Uruguay.

²⁴ Gilchrist, Duncan and Luca, Michael. "How Netflix's Content Strategy Is Reshaping Movie Culture." *Harvard Business Review*, 2017.

²⁵ Cf. Ulrich Uchtenhagen, Copyright Collective Management in Music, WIPO Publication No. 789(E), #32-33, ISBN 978-92-805-1460-5. There is an abbreviated version in Spanish by the same author, "El establecimiento de una sociedad de derecho de autor. Experiencias y observaciones", WIPO Publication 926 (s), ISBN 92-805-1435-0, Geneva, 2005.

documentation up to date. It is imperative to strengthen information collection systems in the countries in this study.

In sum, the information needed to manage audiovisual works must take into account the varied actors, interests and functions that provide this information. Regardless of these different needs and in accordance with each stage of the information flow, it is necessary to have the data required to monitor the exploitation and uses of the audiovisual work comprehensively and to manage the rights of the various holders, as well as to determine the public domain or resolve the problem posed by orphan works. Another piece of information is the territory in which the work is viewed, through identification of the national IP address of the user or subscriber, as, in many cases, platforms can be accessed from different territories with no limitations or geographical restrictions. In other cases, contracts with the work's rights holders only permit the platform to offer the work in certain territories, which is related to other contracts or to translations and subtitling, or even to regulations on the platform's content related to public order in each jurisdiction.

Information would thereby enable the resolution many of the issues presented in the Part 2 of this project on the legal framework, given that in countries in the region an audiovisual work is a collaborative work and not a collective work. The lack of consistency in the information increases uncertainty already inherent in the type of work. As a general rule, all data referring to an interest in the exercise of rights, collection, distribution or respect of moral rights should therefore appear in the information. These data should be:

- Title of the work, in different languages and alphabets depending on the country of exhibition;
- Characteristics of the production: length of the audiovisual work, production locations, date of completion, release date, category of the work (feature-length, series, documentary, short film, multimedia, etc.);
- Name and commercial identification of the producers and co-producers;
- Rights holder, indicating the territories of exploitation;
- Modes of exploitation or rights granted, especially the right of disposal, and the start and end dates for each of them;
- Authors: scriptwriters, director, composer of the score or pre-existing synchronized music used, illustrators and animators;
- Audiovisual performers, both those in the original version and the voice actors used to dub adapted versions;
- Music authors and publishers, musical performers and the rights holders of the phonograms of pre-existing synchronized music used;
- Versions: subtitled, dubbed in some languages, versions for TV, transportation, persons with visual or auditory disabilities;
- Regulatory information, such as the age of the audience;
- Related content, such as "behind the scenes" footage, trailers or scenes not included in the final version;
- Information related to the medium, for legal systems that establish rights over videograms, independent of those of the audiovisual producer;
- Numbers and codes that represent the above information.

2.3 FROM INFORMATION TO METADATA IN OTT PLATFORMS

Much of this information is attached to the same audiovisual work, typically by means of credits sequences. However, not all of the information in the credits will be needed to manage the

Metadata can be defined as data that represent and describe the attributes of a resource, in this case an audiovisual object.

audiovisual work or form part of the international standard numbers.²⁶ It may often be enough to identify a work through a uniform piece of data or code if the information can then be added to during a second stage by linking it to one or several databases.

At present, in digital formats, the information indicated is embedded as metadata in the coding of each work in binary language. Metadata can be defined as data that represent and describe the attributes of a resource, in this case an audiovisual object.²⁷ They can also be gathered/collected/collated in a separate database, with or without a link to the work. There are two types of metadata. On the one hand, there are “descriptive metadata”, which concern use access and enjoyment of the work and are normally used for search engines or for the internal engines of platforms when a user makes a search. On the other hand, there are “administrative metadata”, which refer to distribution authorizations, ownership, participants and contracts. The latter are relevant in the management of rights.²⁸

The content itself and the information identifying it is uploaded by means of mechanisms established by platforms, which are not uniform as each of them collects and interprets data differently. While metadata are incorporated in a standard format, such as XML (Extensible Markup Language), they are extracted and used in accordance with each platform’s own workflow, both for the architecture and business model of each and for the security measures that producers (partners) must adopt to prevent the content being disseminated outside the platform ecosystem.²⁹

As an example, when Amazon Prime Video (www.primevideo.com) acquires or becomes the licensee of an audiovisual work to distribute it, it establishes how all of the metadata that identifies each item of content must be presented. The list of metadata and their format are specific to each platform in accordance with the relevant technical specification.³⁰ The partner individually enters and handles the upload in line with the established procedure. In addition to the general data, specific requirements for the distribution area, generally related to language and subtitling, are then added, which influence the monetization of the content. The metadata language, together with the title, synopsis, audio or subtitles of the content, determines the locations where the content can be made available. All of these elements must

²⁶ In this way, for example, the names of many participants that feature in the credits shall not be in the identification of the audiovisual work available on an OTT platform, such as directors of photography, art designers, costumers, make-up artists, special effects designers and set designers, among others. This is because their contributions, where they have creative content, are transferred to the producer owing to an employment contract or a “lump sum” transfer and there are then no remuneration rights to be managed at the time of exploitation.

²⁷ Cf. International Association of Sound and Audiovisual Archives: <https://www.iasa-web.org/task-force/7-metadata>. For the concept of metadata in general and their use in the digital environment, cf. Baca, Murtha (ed.), *Introduction to Metadata*. 3rd ed. Paul Getty Trust, 2016. Web. <https://www.getty.edu/publications/intrometadata/>.

²⁸ Cf. Rendina, Marco (Cinecittà Luce), “Publication of metadata schema for Pan-European Aggregator”. European Commission: p. 5. Web. <https://cordis.europa.eu/docs/projects/cnect/0/325100/080/deliverables/001-D21PublicationofmetadataschemaforPanEuropeanAggregator.pdf>.

²⁹ For example, the security measures used by Netflix can be seen here: https://partnerhelp.netflixstudios.com/hc/en-us/articles/1500000132801-Netflix-Studio-InfoSec-Guidebook-for-Productions#h_01ES2124VV6F6DWY8HRKVC210F.

³⁰ Cf. https://videodirect.amazon.com/home/help?topicId=GG5QNX4NA2MEWRRAA&ref=avd_sup_GG5QNX4NA2MEWRRAA.

comply with the metadata language in order to be distributed in a given location. The process must be repeated as many times as there are languages available for publication. The instruction is as follows: **“Availability Options.** You may select which territories and how you want to make your title available to Amazon customers (remember, eligible locations depend on the metadata language you selected when adding your title.” For more information, please consult the page on [royalty information](#). This will determine, for example, whether the content will be available for sale and rent (TVOD) or on the Prime platform (SVOD).

The metadata include which formats are available for that content, in such a way that the platform can adapt distribution to the user device, whether through automatic detection or consumer choice. In general, the metadata match the information available on IMDb, a database that usually has information that has already been verified. When the producer, platform or aggregator is required to register content for which there is insufficient metadata available, they can use the services of agencies such as Gracenote (www.gracenote.com), which has a metadata center and takes responsibility for ensuring consistency with IMDb. In addition, Gracenote adds conceptual descriptors about the content itself, which facilitates consumer searches and the processing of information via machine learning, for example, to enable comparisons of the catalogues of different platforms. As indicated in the case study on aggregators, an aggregator cannot have a margin for error below 97 per cent for assets (work, dubbing, subtitling, etc.) to be accepted by an SVOD platform.

The following are the metadata and the publishing process established by Amazon Prime Video:

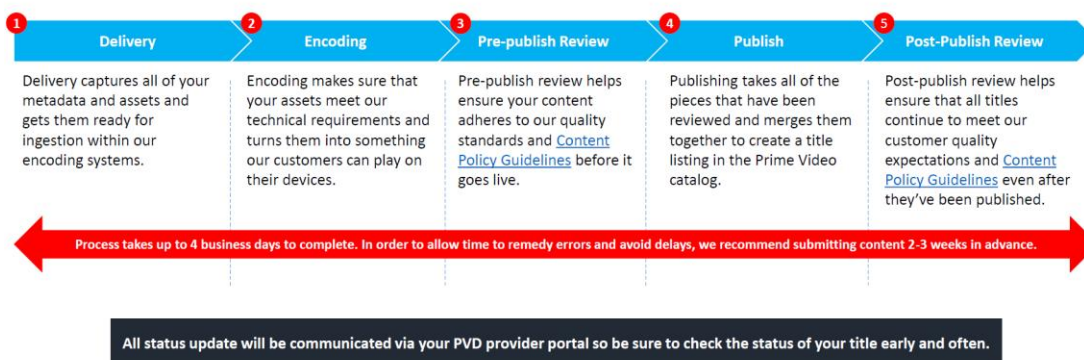
Publishing Requirements Checklist

All titles must include the following metadata and assets before they can be successfully published to the Prime Video Catalog.

Asset Name	Description	Support Page Link
Title Name	This is how customers will be able to identify and search for your title. The title name must be displayed on your graphic assets exactly as it's entered in this field.	Title Name
Category	This indicates the type of programming and usually corresponds to its duration (like movie, short film, educational, or clips). If your content doesn't fall into one of our defined categories, the content is ineligible for submission via Prime Video Direct.	Category Definitions
Title Metadata Language	This is the language of the Title Name , synopsis, and title details. Available locations are based on the metadata language you select when adding a title. You can only select one metadata language per title and it can't be changed after selected.	Location Requirements
Synopsis	This is a short description of your title, what it's about, and how to describe it. The Synopsis is presented to customers when they view the title detail page so it's best to make it both informative and interesting.	Synopsis
Genre	Genres help viewers know the stylistic format they can expect (like science fiction, comedy, or drama). We also use them in search, personalization, and categorization of content. Note: Prime video may add or remove genres to improve discoverability.	Genre Definitions
Country of Origin	The most significant factor to consider when determining the country of origin of a work is the place of establishment of the production company (or companies).	Country of Origin
Rating	Regulators or organizations in each marketplace create ratings criteria for movies and TV shows, however if your title is not officially rated, you must select Suggested Rating - Title not officially rated .	Rating
Cast and Crew Information	A minimum of one crew member must be added, but we recommend that you also enter at least key actors for improved search discoverability on Prime Video. If you're publishing a movie or TV show, then you must provide a Director.	Cast and Crew
Mezzanine File	Prime Video Direct supports video resolutions up to 1920x1080p. (4K UHD content isn't supported at this time.) Our software automatically adjusts the delivery streams to a resolution appropriate to the customer's device and connection speed	Mezzanine Requirements
Captions File	Amazon is a customer-obsessed company and captions help ensure a consistent viewing experience for all customers, including those who might be hearing-impaired, are non-native English speakers.	Caption Requirements
Key Art	Key art represents your title on Prime Video. Key art is required in two aspect ratios for episodic and standalone titles and must display your exact title name.	Art Requirements
Availability Options	You can select which territories and how you want to make your title available to Amazon Customers (remember, eligible locations depend on the metadata language you selected when adding your title).	Royalty Information

◆ Publishing Process Overview

When you have uploaded all the necessary assets and clicked the “publish” button, your title has to go through a process we call “Publishing”. Here are the steps that happen after you click publish:



5

prime video direct

Source: [PowerPoint Presentation \(media-amazon.com\)](https://www.media-amazon.com/powerpoint-presentation)

The requirements are not the same for all platforms; producers, distributors or aggregators may use the available Application Programming Interfaces (APIs) on databases to import existing information. Otherwise, they must adapt or manually upload it in accordance with data-sharing tools used in each case. For example, the Netflix Metadata Template requires the Entertainment Identifier Registry (EIDR) of the audiovisual work as the initial data.³¹ Among other requirements, the data depends on whether it concerns original productions or licensed ones, as in the case of “Netflix Original Series”. There is a direct link between the means of presenting/displaying credits and metadata³². In turn, the producer or their agent must include descriptors relating to the content rating, such as whether the language is problematic, whether there are scenes of sex or drug use, and whether it is suitable for younger audiences. These ratings can be imported from an official classification body that has a data-sharing API.

Lastly, images or covers by which the audiovisual work will be identified must also be submitted, in line with the technical requirements of each platform. The diversity of the content, all of which has very different sources, requires a degree of consistency to facilitate consumer searches and create loyalty to the platform.

One aspect to bear in mind is that the metadata also perform a technical function in the system architecture and in content distribution, and not only in identifying content for administrative, commercial or legal purposes. This is, inter alia, because content delivery does not take place through the download of a single file or data flow, but rather through the synchronized combination of images, sound and subtitles, even when the user only sees a single title in their playlist. The metadata identifying each file or flow/stream enables the proper combination and assembly. The metadata themselves are therefore the technical resource that facilitates the publication of content and the delivery of a product that complies with quality requirements and the necessary regional and linguistic adaptations.³³ This may be the main barrier to achieving full

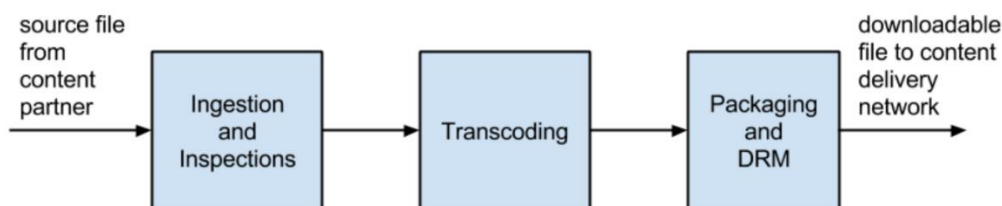
³¹ Cf. <https://partnerhelp.netflixstudios.com/hc/en-us/articles/215620267-All-Metadata-Templates>.

³² For producers, aggregators, distributors and all actors in the Netflix ecosystem, the Full Licensed Technical Specification must be applied; it is available at: <https://partnerhelp.netflixstudios.com/hc/en-us/articles/215148917-Full-Licensed-Technical-Specification-v9-1>.

³³ Regarding the need to include specific data for different versions in line with local requirements, cf. [tor](#).

uniformity in the dataset and the metadata format: the technical requirements of each platform and the business model.

In the case of Netflix, for example, the Interoperable Master Format (IMF) is used as a standardized mechanism for content delivery.³⁴ The process begins with an “ingestion system”, which make it possible to ensure the integrity of the files containing images and sound, together with the metadata identifying them. The verified files are then decoded and re-encoded to configure the outflows, including the corresponding digital rights management. The process makes it possible to combine different flows in a single timeline without needing to synchronize them. The broad outline can be seen below:³⁵



Under Article 12 of the WIPO Copyright Treaty (WCT), any metadata embedded in the audiovisual work is protected as “rights management information” as long as it is “attached to a copy of a work or appears in connection with the communication of a work to the public”.

2.4 REGIONAL REGULATIONS THAT REFER TO RIGHTS MANAGEMENT INFORMATION

The informational elements of the audiovisual work, including the obligation to use consistent information systems for audiovisual works on OTT platforms, may be provided in the legislation in force, be part of compliance with contracts or even be the subject of court orders in some cases.

From a legislative and legal perspective, these aspects vary between jurisdictions owing to the territoriality of rights. This principle was recognized in a recent legislative reform in Peru; when the new film promotion system was enacted, it was established that “the distribution of cinematographic and audiovisual works on digital platforms, the end use of which takes place within the national territory shall be regulated in line with the provisions established in the relevant Peruvian regulations”.³⁶ These regulations, by indicating that when “the end use [...] takes place within the national territory [it] shall be regulated in line with the provisions established in the relevant Peruvian regulations”, ratify the application of the territoriality principle. National regulations may therefore oblige users to provide information on the territory of end use, as well as the obligations and rights of the holders of catalogues and repertoires or their representatives.

2.4.1 Registration obligations

³⁴ Cf. <https://partnerhelp.netflixstudios.com/hc/en-us/articles/360002018547-Interoperable-Master-Format-IMF-Overview>.

³⁵ Cf. <https://netflixtechblog.com/the-netflix-imf-workflow-f45dd72ed700>.

³⁶ Republic of Peru, Emergency Decree, No. 022-2019, to Promote Cinematographic and Audiovisual Activity, art. 22.2, published in the official journal *El Peruano* of December 8, 2019, available at: https://busquedas.elperuano.pe/download/full/3HemirU0aFaBk9_1N1ISaF.

Under international law, it is not required to register audiovisual works and contracts, as Article 5(2) of the Berne Convention establishes that “the enjoyment and exercise of these rights shall not be subject to any formality; such enjoyment and such exercise shall be independent of the existence of protection in the country of origin of the work”. This provision of the Berne Convention is interpreted as an illustration of the general principle that copyright protection is automatic and begins when the work is created. However, voluntary and declaratory registration meets the relevant legal, social and economic objectives.³⁷ Beyond voluntary registration, available in all countries in this study, in some cases registration is also required for some public purposes, such as encouraging audiovisual production, monitoring box office, meeting “audience share” requirements or verifying time or age restrictions for the audiovisual works disseminated by broadcast organizations. However, for the purposes of this study, we may also consider the new and broader functions of these registers to facilitate market operations in the globalized digital content environment.³⁸

There are a number of national provisions that mandate the registration of audiovisual works do that the producer can benefit from support schemes, as in the case of Peru. In Ecuador, the Institute for the Promotion of Creativity and Innovation (Instituto del Fomento a la Creatividad y la Innovación - IFCI, previously ICCA) also requires the prior registration of audiovisual works with the National Intellectual Rights Service (Servicio Nacional de Derechos Intelectuales – SENADI) for works participating in the National Cinema Fund’s selection competitions.³⁹ In Argentina, it is mandatory to register contracts: “The transfer or assignment of a literary, scientific or musical work, whether total or partial, must be registered with the National Intellectual Property Register, without whose registration it shall not be valid” (Article 53 of Law No. 11.723). While the regulation severely punishes failure to register, the jurisprudence and teaching have interpreted its effect as a lack of effectiveness against third parties.⁴⁰ This regulation has been applied in cases of inheritance law or bankruptcies or collapses of audiovisual producers to determine which works make up the producer’s assets. Beyond this generic standard, Article 34 establishes that “the total or partial transfer of

³⁷ The discussion of the advantages of registering works protected by copyright or the complete absence of formalities is far from over. Many of the considerations of the functions and advantages of registration – with particular reference to the United States of America – have been analyzed in: Gervais, Daniel J. and Renaud, Dashiell. “The Future of United States Copyright Formalities: Why We Should Prioritize Recordation, and How to Do It.” *Berkeley Technology Law Journal*, vol. 28 (2013). Web. <https://ssrn.com/abstract=2318496>.

³⁸ Cf. van Gompel, Stef. *Formalities in Copyright Law, an Analysis of their History, Rationales and Possible Future*, Kluwer Law International, 2011, p. 9. As an example, registration of an audiovisual work in China helps to combat piracy. The E-Commerce Act in China provides in its Article 42 that “where IPR holders perceive an infringement of their IPRs, they have a right to notify e-commerce platform business operators to take necessary measures such as deleting, blocking or disconnecting links and terminating transactions or services. The notices shall include preliminary evidence relating to the infringement”. The preferred “preliminary evidence” is the registration of copyright through simple and inexpensive procedures. Cf. <http://ipkitten.blogspot.com/2019/01/new-chinese-e-commerce-law-and-its.html>. In 2018, 3,457,338 copyright registrations were recorded in China. In addition, in China registrations facilitate use of the so-called “content ID” that content monitoring platforms use online, with an efficiency rate of over 95 per cent in removing infringing content. Cf. <http://ipkitten.blogspot.com/2017/05/the-popular-china-copyright-monitoring.html>. For more information on the content removal system in China, cf. Friedmann, Danny. “Oscillating from Safe Harbor to Liability: China’s IP Regulation and Omniscient Intermediaries”, in Frosio, Giancarlo (ed.), *World Intermediary Liability Map: Mapping Intermediary Liability Trends Online*. Center for Internet and Society, Stanford University. Web. https://www.researchgate.net/publication/316991001_Oscillating_from_Safe_Harbor_to_Liability_China%27s_IP_Regulation_and_Omniscient_Intermediaries.

³⁹ Cf. Resolution No. 012-DE-ICCA-2018, Article 10.6, available at: <http://www.creatividad.gob.ec/certificacion-de-origen-nacional-independiente-de-obras-cinematograficas-y-audiovisuales-para-personas-naturales/>

⁴⁰ Cf. Sommaruga, Nicolás. “El registro de contratos ante la Dirección Nacional del Derecho de Autor de la República Argentina.” *Revista Iberoamericana de la Propiedad Intelectual*, vol. 5 (2017): p. 93 *et seq.* Web. <https://ojs.austral.edu.ar/index.php/ripi/article/view/452>. The registration or entry of contracts on audiovisual works are proving to be very important as under some legislation they are required to enforce those rights against third parties, in cases of transfer, situations related to family law (separations, divorces, inheritances), bankruptcy proceedings (collapses and receiverships) and even the use of the work or its rights for financial structures (trusts, issuance of investment funds).

temporal or spatial exploitation rights for cinematographic films shall only be effective against third parties when they are registered in the National Intellectual Property Register". This is why the registration of contracts is fundamental in clearances in the chain of title, especially for exhibition in foreign cinemas, although the information in these contracts is not among the information in the metadata embedded in the audiovisual work.

For its part, Brazil requires domestically produced audiovisual works to be registered with ANCINE as a prerequisite for obtaining a number identifying them with a "Brazilian Product Certificate" (Certificado de Produto Brasileiro - CPB).⁴¹ In order to obtain this certificate, basic information must be registered, such as the title of the work, the category and type of work, a synopsis, the length, the number of producers and co-producers with the percentage of rights owned by each of them, the director, other authors (script, music, illustrations) and participants (sound engineers, gaffers, directors of photography), as well as other service providers contracted during production of the work. Contracts concluded during the production process and for exploitation must also be added; these are not made public and their terms are only available to producers and other interested parties. The numbers of the files opened for the approval of support funding from ANCINE or the Audiovisual Sectoral Fund (Fundo Setorial do Audiovisual) must also be declared.

ANCINE registrations, for their part, require prior registration of the audiovisual work with the National Library, which acts as the copyright registration authority for all types of works. This registration uses a generic form that does not include any specifications for audiovisual works that are useful in rights management.⁴²

The CPB is proof that the audiovisual work is of Brazilian origin and an independent production. It is mandatory for the CPB number to be used to issue reports on cinema exhibition. It is the most important documentation for producers, exhibitors and TV channels to show: a) in the case of a production company that used public funds for production, that the work is Brazilian or Brazilian/independent and that it meets the legal requirements for both, that is, obtaining Brazilian nationality and using public subsidies for production and financial incentives; or b) in the case of a free-to-air or cable TV channel, that they are meeting the mandatory quotas for broadcasting Brazilian or Brazilian/independent content.⁴³ While the CPB indicates the rights holders of a given audiovisual work and their percentage of the work, there is no further information for intellectual property purposes.

In Brazil, it is also necessary to obtain the Title Registration Certificate (Certificado de Registro de Título - CRT) via the ANCINE Digital System (SAD: <http://sad.ancine.gov.br>), for both domestic and foreign works. The CRT is intended to show that the person or entity exploiting the work has paid the fee required for this window or specific market segment. Brazilian law requires all actors in the audiovisual industry to pay a tax intended to fund the development of the audiovisual industry (distribution, production, etc.): this is the above-mentioned Audiovisual Sectoral Fund. This must be paid prior to public exhibition. SAD makes it possible to link the CPB to the CRT registration and thereby import information that has already been uploaded. It also states the intended market segment of the audiovisual work, such as cinema exhibition, free-to-air TV, pay TV or "other markets", which includes TVOD and SVOD. The CRT must also be requested for the licensing of third party works, providing information about the licensing period and adding the relevant contract.

Examples of the CPB and CRT can be seen below:

⁴¹ Cf. <https://www.ancine.gov.br/manuais/passo-passo-sistemas/sad>.

⁴² Cf. <https://www.bn.gov.br/servicos/direitos-autorais>. The requirements of the registration form can be consulted here: https://www.bn.gov.br/sites/default/files/documentos/diversos/2015/1208-registroouaverbacao/registro-ou-averbacao-579_0_0_0_0_0.pdf.

⁴³ Cf. <https://www.gov.br/ancine/pt-br/assuntos/noticias/ancine-publica-duas-instrucoes-normativas-sobre-cpb-e-crt>.

Certificado de Produto Brasileiro



Nº B20-004844-00000

A AGÊNCIA NACIONAL DO CINEMA - ANCINE, conforme inciso XIII do Art. 7º da Medida Provisória nº.2.228-1, de 06 de setembro de 2001, com redação introduzida pela Lei nº. 10.454, de 13 de maio de 2002, e conforme Decreto nº4.456, de 04 de novembro de 2002, confirma que constitui obra audiovisual brasileira o produto identificado neste Certificado, válido como documento de origem para exportação. Este documento não atesta regularidade em relação à utilização de recursos públicos, inclusive para fins de prestação de contas. As informações desse certificado podem ser conferidas no portal da Ancine, www.ancine.gov.br

Título Original PROTETORES DA FLORESTA
Classificação BRASILEIRA INDEPENDENTE CONSTITUINTE DE ESPAÇO QUALIFICADO
Tipo DOCUMENTÁRIO

Os capítulos/Episódios abaixo fazem parte deste certificado de produto brasileiro:

Título Original PROTETORES DA FLORESTA
CPB Nº B20-004844-00000

Temporada	Episódio nº	CPB nº
01	001	B20-004844-00001
01	002	B20-004844-00002
01	003	B20-004844-00003
01	004	B20-004844-00004

CERTIFICADO DE REGISTRO DE TÍTULO CRT Nº 2020012554000005



Válido para o segmento de mercado **COMUNICAÇÃO ELETRÔNICA DE MASSA POR ASSINATURA (TV PAGA)**

A AGÊNCIA NACIONAL DO CINEMA - ANCINE, conforme inciso XIII do art. 7º da Medida Provisória nº 2.228-1, de 06 de setembro de 2001, com redação introduzida pela Lei nº 10.454, de 13 de maio de 2002, atesta que o título abaixo identificado foi registrado nesta Agência.

Requerente JACKIE SHOR PROJECTS - PROJETOS **CNPJ/CPF** 23.194.696/0001-30
CPB/ROE Nº B20-001392-00000
Título Original CHOCOLIX - SEGUNDA TEMPORADA

Os capítulos/Episódios abaixo fazem parte deste certificado de registro de título:

Título Original	CHOCOLIX - SEGUNDA TEMPORADA	
CRT N°	2020012554000005	
Válido para o segmento de mercado	COMUNICAÇÃO ELETRÔNICA DE MASSA POR ASSINATURA (TV PAGA)	
Episódio n°	CPB/ROE n°	CRT n°
1	B2000139200001	2020-012554-00001-3
2	B2000139200002	2020-012554-00002-1
3	B2000139200003	2020-012554-00003-0
4	B2000139200004	2020-012554-00004-8
5	B2000139200005	2020-012554-00005-6
6	B2000139200006	2020-012554-00006-4
7	B2000139200007	2020-012554-00007-2
8	B2000139200008	2020-012554-00008-0
9	B2000139200009	2020-012554-00009-9
10	B2000139200010	2020-012554-00010-2
11	B2000139200011	2020-012554-00011-0
12	B2000139200012	2020-012554-00012-9
13	B2000139200013	2020-012554-00013-7

O registro do título da obra não implica reconhecimento, a favor do contribuinte, de direito real, autoral ou patrimonial sobre a obra.

However, the registrations to which we have referred and the resulting numbers do not comply with international standards and are not particularly useful to rights management in the digital environment. They are only applied for administrative or evidentiary purposes. While they form a database that can be consulted by the public, they do not create metadata that can be used to monitor the various exploitations of an audiovisual work or that are interoperable. A preliminary conclusion is therefore that the registrations of works and contracts, in their present state, do not fulfil the aim of universally identifying a work and its resulting rights to be able to manage their exploitation in the digital environment. One possibility to be considered is that these registrations are structured alongside others in such a way as to form a single information flow and public databases in interoperable formats.

2.4.2 Obligation to issue reports on the exploitation of works

The countries in this study have no no regulation equivalent to Articles 17 and 19 of the Directive on copyright and related rights in the Digital Single Market, which requires information on the use of the work to be provided.⁴⁴ If there is any kind of obligation, it should arise from the contracts that producers and distributors have with platforms. As highlighted in Part 4 of the study on contractual practices, it was not possible to access any of them owing to the confidentiality usually agreed between parties. Even in cases of mandatory collective management of royalties, the CMOs or platforms do not inform the public about uses or revenue collections, in contrast to cinema box office reporting or rights clearance by broadcasting organizations.

However, confidentiality either imposed by one of the parties or negotiated should not be a barrier to other legitimate interests of third parties, such as adequate knowledge of the rate of use of each work in the different distribution channels. The cinema box office performance, the rating of a program broadcast on TV and the size of a concert audience are therefore examples of data that do not affect the privacy of participants or users, and that provide information useful to rights management.

⁴⁴ Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market, Article 19.1. "Member States shall ensure that authors and performers receive on a regular basis, at least once a year, and taking into account the specificities of each sector, up to date, relevant and comprehensive information on the exploitation of their works and performances from the parties to whom they have licensed or transferred their rights, or their successors in title, in particular as regards modes of exploitation, all revenues generated and remuneration due."

In contrast, there is awareness of the terms and conditions of certain platforms as they are public knowledge. When a platform implements a good practice or imposes certain requirements for access and enjoyment, or even establishes terms and conditions, these ultimately constitute contractual provisions as they require the rights holders or users to accept the terms and conditions when they sign up, as in the case of the Content ID of YouTube, which we will analyze later.

In addition, it is worth considering that the information about the audiovisual work or the embedding of metadata in the masters is a requirement of platforms, with the aim of content being able to be distributed in a uniform manner. This requirement is usually the responsibility of aggregators, as was noted in Part 4 on contractual practices and the case study on aggregators, both of which are parts of this Project.

2.4.3 Informational obligations in collective management

In some of the countries in this study there are certain provisions on the information required for collective management of rights. In Brazil, Law No. 9.610 of February 19, 1998, in its Article 98 § 9 (included by Law No. 12.853 of 2013) establishes that: “The associations shall provide information system for periodic communication by the user of all the works and phonograms used, as well as for the monitoring by the rights holders of the amounts collected and distributed.”⁴⁵ This section concerns the other obligations of CMOs, in paragraphs § 6, 7 and 8, under which CMOs shall “give publicity and transparency, through its own electronic websites, to the calculation methods and collection criteria, including, among other information, the type of user, time and place of use, as well as the criteria for distribution of rights values including spreadsheets and other records of use of the works and phonograms provided by users, except for the values distributed to the individual owners” (Article 98-B.1, included by Law No. 12.853 of 2013).

Subparagraph 4 of the same legislation indicates that: “The collection will always be proportional to the degree of use of the works and phonograms by the users, considering the importance of the public execution in the exercise of its activities, and the particularities of each segment, as provided in the regulation of this Law.” Article 16 of the regulations in Decree No. 8.469 of June 22, 2015, establishes that: “It is the responsibility of associations to make an information system available to enable to user to communicate, in a timely manner, all works, performances and phonograms used.”⁴⁶

At a lower legislative level, there is Normative Instruction No. 1 of the Ministry of Culture, of May 4, 2016, which establishes a reporting obligation for users who publicly perform musical works and phonograms, including in audiovisual productions. Film exhibition companies, companies distributing conditional access audiovisual services and Internet service providers are covered. Cinemas must provide CMOs with information on the works or other audiovisual productions they exhibited in the previous month. Pay TV operators must provide a complete list of the channels made available to subscribers, identifying the registration number of the relevant producer and channel with ANCINE. Internet platforms must provide the title of works or other audiovisual productions used in the national territory.

In addition, in Article 3, it indicates that CMOs may obtain the complete list of works and other domestic audiovisual productions transmitted on the channels of broadcasters featured on the ANCINE website. Article 4 then establishes how musical works and phonograms embedded

⁴⁵ Text of the agreement in translation available in WIPO Lex: <https://wipolex.wipo.int/en/text/505104>.

⁴⁶ Regulations under Law No. 9.610 of February 19, 1998 and Law No. 12.853 of August 14, 2013, to provide for the collective management of copyright.

in works and other domestic audiovisual productions must be identified. Regarding the music included in foreign audiovisual works, information shall be provided by CMOs in the country of origin that have a reciprocal representation agreement. Moreover, Normative Instruction No. 2 of the Ministry of Culture of May 4, 2016, establishes additional collection procedures for the public performance of works, performances and phonograms on the Internet.

Another relevant guideline can be found in Ecuador, in Article 257 of the INGENIOS Code⁴⁷, which indicates:

“Article 257.- Registration obligations for broadcasting, television or cable organizations.- All broadcasting, television or cable organizations and in general those communicating protected works, performances, programs or phonograms to the public, for commercial purposes and making a detailed selection of the materials that they communicate directly to the public, must keep monthly catalogues, registers and records in which they record, in order of broadcast, the titles of the works broadcast and the names of the relevant authors or copyright and related rights holders of whom they are aware. These catalogues, registers or records must be submitted to a collective management organization and to the sole collection body for royalties from public communication for the purposes established in this Chapter. The collective management organization must provide receipts or documentary proof that acknowledges reception of the catalogues, registers or records referred to in this Article.”

This applies to broadcasting organizations and cinema exhibitors. However, its application to OTT platforms is unclear as such platforms generally make works available rather than communicate them to the public. Although for authors public communication includes making works available (Article 8 of the WIPO Copyright Treaty), it is not the same for holders of related rights as both rights are clearly differentiated (Articles 10 and 14 of the WIPO Performances and Phonograms Treaty and Articles 10 and 11 of the Beijing Treaty on Audiovisual Performances). In accordance with the published standards, the data to be included in the records are very basic; however, there is nothing preventing CMOs and users agreeing on a format that enables unequivocal identification of the works broadcast or communicated.

The regulations under the INGENIOS Code also have a reporting obligation applicable to audiovisual works, which is the responsibility of CMOs. Under Article 115, they must create and “keep up to date a database with clear and precise information on the works, performances, broadcasts or phonograms whose copyright and related rights they manage ...”. They must be publicly accessible and available online, and record the holders of the works, the works and the rates for each type of use and category of user. They must also provide information on the reported uses of each work and the distribution methods applied for the benefit of their members.⁴⁸ We understand that this also applies to the management of royalties for uses of audiovisual works on digital VOD platforms.

2.5 INFORMATION ON THEATRICAL EXPLOITATION

In the audiovisual market, the first window of exploitation was theatrical exhibition in cinemas. In line with this practice, the basic aspects of which have not undergone any major changes

⁴⁷ Republic of Ecuador, Organic Code on the Social Economy of Knowledge, Creativity and Innovation, published on December 9, 2016, available at: <https://www.wipo.int/edocs/lexdocs/laws/es/ec/ec075es.pdf>.

⁴⁸ Ecuador, Agreement No. SENESCYT-2020-077, Knowledge Management Regulations, available at: www.registroficial.gob.ec. Year II – No. 1412, Quito, December 22, 2020.

since its creation, the distributor, authorized by the producer, signs a contract with the owner or manager of the exhibiting cinema, as it is the holder/licensee of the exclusive right for a given territory, time and type of use.⁴⁹ The contract between the producer or distributor and the exhibitors requires timely and specific information about the box office returns, as the usual way of remunerating such exploitation is through a percentage of the revenue collected.

Both the settlement of this remuneration, as well as the guarantees and advances, is normally agreed as a percentage of ticket sales. This information is relevant because it, in turn, has an impact on other contracts, such as those of producers, some actors and other rights holders that receive a percentage of this income, whether gross or net. Because of the large number of parties interested in adequate information on the income generated, the exhibitor must provide daily reports on the number of tickets sold and the cost of entry.

In addition, because we are discussing regulated markets, at least in some of the countries in this study, exhibitors are obliged to present a sworn declaration to the relevant film promotion body. In the case of Argentina, the declaration is called “F.700”, in accordance with the provisions of Resolution No. 3785/2013 of INCAA, where all daily exhibition is reported.⁵⁰ Information on films is provided using the film code issued by the INCAA when the film is rated. The form is provided by the supervisory authority, with no input from the producer. At present, the films are digitally uploaded to the INCAA platform. Here is a sample of the information to be provided:

The same consideration applies for Brazil in respect of compliance with the cinema screen quota, established by Decree No. 10.190 of December 24, 2019, which is verified by the Ticketing Monitoring System implemented by ANCINE, in accordance with Normative Instruction No. 123 of the December 22, 2015.⁵¹ The exhibitor must provide information on the daily box office through the ANCINE Digital System, where works are identified using ANCINE registration codes. The alphanumeric codes used are the CPB and ROE (Registration of Foreign Work – Registro de Obra Estrangeira) for foreign audiovisual works for commercial purposes. As we can see, in the countries in this study, the means of identifying works are not universal and made the automated management of information difficult.

Cinemas, in turn, customarily report daily on the business done by each film at the end of the day to a company specializing in capturing and disseminating information. In some cases, they submit forms and in other cases box office staff contact staff of the company by phone to provide information on the figures at the close of business. In the case of Argentina and

⁴⁹ Aft, Rob H. and Renault, Charles-Edouard. *From Script to Screen: The Importance of Copyright in the Distribution of Films*, Creative Industries – Booklet No. 6. Geneva: WIPO, 2011: p. 78. Web. https://www.wipo.int/edocs/pubdocs/en/copyright/950/wipo_pub_950.pdf. See also, Bertrand Moullier and Richard Holmes, *Rights, Camera, Action! Ip Rights and the Film-Making Process*. Creative Industries – Booklet 2. Geneva: WIPO, 2007, p. 77 et seq. Web. https://www.wipo.int/edocs/pubdocs/en/copyright/869/wipo_pub_869.pdf.

⁵⁰ INCAA publishes an annual report, available at: http://fiscalizacion.incaa.gov.ar/index_anuarios_2019.php.

⁵¹ Regulations available at: <https://www.ancine.gov.br/pt-br>.

Uruguay, the main service provider is ULTRACINE (<https://web.ultracine.com/>), which acts on behalf of distributors. This company also publishes annual reports.

Another independent provider of box office reports is COMSCORE. Through its COMSCORE International Box Office Essentials® (IBOE), this global company reports the income of over 90 per cent of cinema industry worldwide (<https://www.comscore.com/Products/Movies/International-Box-Office-Reporting>).

COMSCORE produces box office reports for DAFO (Directorate for the Audiovisual Industry, Phonography and New Media – Dirección Audiovisual, la Fonografía y los Nuevos Medios), the relevant Peruvian authority. Here is an extract of a box office report for Peru for 2019:

Título	Distribuidora	Estreno	Recaudación (S/)	Asistencia	Género	Pais de origen primario	Pais de origen no primario	#Cines	#Pantallas	Clasificación
La Peor de Mis Bodas 2	COLOR	01/01/2019	2,153,390	215,057	Comedy	Peru		102	126	A
Máquinas Mortales	UPI	01/01/2019	1,184,834	116,702	Science Fiction	New Zealand	USA	102	107	M 14
No Mires	BFDT	03/01/2019	742,777	67,543	Suspense	USA		47	51	M 14
Dragon Ball Super: Broly	FOXI	10/01/2019	14,641,904	1,332,137	Animation	Japan		102	422	A
Ya Veremos	BFDT	10/01/2019	1,893,737	186,357	Comedy	Mexico		76	84	A
La Mula	WBI	10/01/2019	1,045,861	74,595	Drama	USA		28	34	M 14
El Silbón: Origenes	STARFLM	10/01/2019	112,213	15,221	Horror	Venezuela	Mexico, USA	24	31	M 14

In order to provide information to producers and distributors, these providers create “data sheets” for each film and each territory. They do not use standard international numbers, such as the ISAN, but rather each distributor provides basic information. The sheet is then completed with the data on each local version, inter alia the rating, length and dubbing or subtitling, including through reference to other databases such as IMDb. The reports require all data from all cinemas and distributors to be accessible, in many cases with detail on each function. The reports are mainly sent to the distributor, but are sometimes also provided to agents or producers in cases of distribution in multiple countries.

It is also necessary to consider the information needed to CMOs to be able to manage rights collectively, whether they are exclusive or economic rights of simple remuneration, or whether they are copyright or related rights and the responsibility of exhibitors. They must present information to each CMO, albeit with varying regularity and in differing formats. A template for the payment of royalties for public exhibition in cinemas in Argentina is as follows:

INCAA CODE	FILM	DIRECTOR	ORIGIN	NET SALES	DUTIES			TOTAL TO BE PAID
					***%	***%	***%	

As we can see, reporting on cinema exhibition is not consistent and is not centralized. This is partly because the recipients of these reports have different objectives as, for example, the duties to be paid are based on different rights. However, the basic information, namely the tickets sold and the price of entry, should be consistent, as inconsistency would lead to

problems with taxation and compliance with copyright regulations, as well as the potential breach of contracts with distributors.⁵²

2.6 INFORMATION ON EXPLOITATION OF WORKS IN BROADCASTING

The exploitation of audiovisual works through broadcasting is a long established practice. When producers carry out negotiations on their work or repertoire individually with a broadcasting organization or a distributor, less information is required. Each work is identified by its title, which is enough to conclude and implement a broadcasting contract. In relation to this work or specific set of works, the number of broadcasts, their dates and times, the mediums used (free-to-air, cable, satellite), their potential availability on demand and any other means in which the signal broadcast will be available, such as IPTV, will be among the elements established. Remuneration will then be established, whether as a fixed amount or a sum linked to the number of broadcasts. When the contract or one of its periods expires, the broadcasting organization shall provide information on the number of broadcasts and their dates, among other data. Other information is not required for the purposes of this contract; as a result, broadcasting organizations, whether free-to-air, cable or satellite, do not, for example, usually provide audience data for each broadcast, including when they have the parallel services of TV Everywhere.

The broadcasting organization creates its own database for internal administrative purposes. Some distributors allow this information to be obtained via restricted access to their sites and databases so that broadcasters may have information on titles included in any contract in force. The broadcaster's database can include the contract number, the name of the provider or distributor that licenses or transfers the audiovisual work, the signal used to broadcast the program or film, the total amount of the contract, the amount for each specific item of content (if there is more than one program per contract), the period of validity of the rights and the territorial rights. The images or clips that will be used to announce or advertise the work are also uploaded. In the case of broadcasting organizations that have different signals and for different media, the authorized signal for each broadcast, as well as information about the broadcast itself, will be provided.

All of these data are exclusive to the broadcasting organization and do not normally use uniform identifiers for works. Uploading is done manually using spreadsheets and, in addition to the title, the information contains data on the hallmark, producer, director, author, number of episodes (in the case of soap operas or series), executive producer, actors, country of origin, production year, genre, length in minutes, and whether or not it is edited for classification and exhibition. With this information, the broadcasting organization puts together its schedule for each channel, which will be available for the commercial area of the broadcaster, advertisers, cable operators or rebroadcasting signals – both within and outside the country – and audience measurement services. This information is extracted from the database itself and is very basic: title, length, schedule, director, main characters. The advertising campaign is organized on the basis of this schedule.

The broadcaster's database makes it possible to issue reports for distributors in a monthly list that indicates the title and the broadcast data of the programs included in the contract with the distributor in question. Distributors can also use independent content auditing services, which usually provide equivalent information, albeit with the addition of audience measurements.

The broadcaster's database is also used for the reports required by regulatory authorities and public bodies, to prove that both the audience share and the requirements for child protection

⁵² In some jurisdictions, providing intentionally inaccurate information in reports can incur criminal responsibility as a special case of fraud.

ratings and scheduling have been met. Depending on the country, these reports may be completed digitally using specific platforms, which the broadcaster can access to upload data by providing a spreadsheet or including a form. The information required by these regulatory bodies is basic and does not use universal identifiers. The only requirement is for the audiovisual work to be identified under the same title used by the classification body in the relevant country.

Compliance reports are delivered *ex post*, but *ex ante* reports are also required for new programming. In the latter case, information about the name of the program, the frequency, date and time of the start and end of broadcasts, and the genre (film, journalism, variety, sport, etc.) is provided. For films, it is necessary to indicate the title, whether it is dubbed and, if so, where the dubbing took place. Information is also provided on whether it is of domestic or foreign origin, indicating the country. If it is a domestic production, there are a number of options; it may be the broadcaster's own production, produced locally by third parties or produced by foreign third parties. If it is produced locally by third parties, the production company must be mentioned. Where relevant, the report states whether a broadcast is live, on demand or purchased directly. Notice must also be given of any changes to programming.

In summary, in regard to information on audiovisual works and other content of broadcasting organizations, inconsistent practices and a lack of use of universal identifiers has been observed.

2.7 BROADCASTING AND COLLECTIVE MANAGEMENT

Depending on each territory and the type of rights, the broadcasting organization must inform other rights holders, in particular CMOs, whether they manage exclusive rights or simple remuneration rights. In these cases, the information may be more detailed as each audiovisual work must be linked to the rights holders. In general, the only broadcast information needed is the title of the work and each body is then responsible for connecting this work to the corresponding rights holder, whether scriptwriters, directors, producers, musical or audiovisual performers, music publishers or phonogram producers. The repertoire of each CMO shall contain the information required to identify the relevant rights holder for each work transmitted by the broadcasting organization. If the work is registered in all repertoires, the broadcasting organization's information shall be used to distribute the revenue to each CMO. If the CMO in question manages a universal repertoire or if the extended licensing mechanism is in operation in the country, the collection and assignment of revenue is simpler. If, on the other hand, there is a body representing the same type of rights it will be necessary to allocate revenue in accordance with the repertoire represented by each body, except in the case of so-called "single windows", such as the Central Bureau for Collection and Distribution (Escritório Central de Arrecadação e Distribuição – ECAD) in Brazil.

As broadcasters pay remuneration rights in line with advertising income or subscriber numbers, without assigning payments to any particular program, schedules are normally used to allocate the distribution of this income. In the case of cable operators or satellite channels, not all channels are available to all operators. Moreover, when the CMO applies distribution criteria that take the audience into account, they combine basic information with the ratings reported by specialized agencies, such as the Brazilian Institute of Public Opinion and Statistics (Instituto Brasileiro de Opinião Pública e Estatística – IBOPE), COMSCORE, Nielsen or KantarMedia. Audience reports also use the title of the work in line with the schedule provided by each channel or even collected from the reports from these agencies.

In the specific case of music included in audiovisual works, the broadcaster creates cue sheets for its own programming and sends them to authors' associations. This may be pre-existing synchronized music or music composed especially for the program. In the latter case, if the

broadcasting organization is the producer of the content and the music is original and created specifically for its programs, it is normal for the broadcaster to manage registration of the musical works as a publisher. This is the practice followed by large audiovisual producers, such as Netflix, Disney and Viacom. The obligation to declare the works included is always the responsibility of the producer, whether this is the broadcaster, an external producer or even the original producer of the audiovisual work. The type of use made of the music is one of the most important pieces of information to be provided. If the use is incidental (background), the revenue distribution is less than for music used to begin or end a program.

In the case of phonograms communicated publicly through broadcast signals, each phonogram is detected automatically through “fingerprint” mechanisms and it is therefore not necessary to use cue sheets. We will examine this issue in more detail later.

3 INFORMATION MANAGEMENT SYSTEMS IN THE DIGITAL ENVIRONMENT

The lack of a public reference to the use of existing identifiers is currently a significant source of costs and tensions for the audiovisual industry and digital distributors. In data flows from distribution to reporting, the lack of consistency requires the manual matching of elements based on metadata or the use of private schemes, many of which lack a universal scope.⁵³

As we have already indicated, the digital environment for the exploitation of audiovisual works requires any one item of content to have a large number of licenses in many territories, with different start dates. The following are some of the latent risks:

LATENT RISKS OF THE ABSENCE OF MANAGEMENT SYSTEMS

- 1) Inactive content does not generate income;
- 2) The distribution of content in advance creates problems of cannibalization and legal disputes between distributors;
- 3) The lack of precise information on prices or royalties affects the flow of funds;
- 4) The manual management of information is very expensive and does not facilitate monitoring of the audiovisual works;
- 5) Information from cinemas is particularly important as the first two weeks generate the most income in the life cycle of an audiovisual work;
- 6) The information must be shared between the owners and the distributors to facilitate compliance with contracts in the long term and the potential payment of additional remunerations provided for in the contract;
- 7) Inconsistent information creates mutual suspicion and mistrust, which cannot be completely resolved by audits and agreements;
- 8) Consistency in the identification of audiovisual works improves financial reports, which can be delivered in a timely manner;
- 9) In cases of collective management, inconsistent or poor information leads to an increase in collection and distribution costs.

⁵³ The use of universal identifiers, such as ISAN or EIDR, is one of the good practices recommended by the Independent Film and Television Alliance. Cf. IFTA. *Practical Guide to Copyright Protection*. IFTA, 2015, p. 13. Web. <https://ifta-online.org/report-copyright/>.

A norm or standard is a commonly accepted way of doing something. They are intended to simplify the management and increase the interoperability, efficacy and efficiency of any repeated action. They are normally implemented using public documents that contain technical specifications, rules, directives and definitions. They reduce transaction costs and increase efficiency. Standards are created by consensus between experts and interested parties in industry and are adopted voluntarily. As the digital value channel is ever more dependent on high-volume and low-cost transactions, only the use of standards can provide the operational efficiency required. As they also reduce margins, only an automated global infrastructure for processing transactions on the basis of these norms will be able to generate the financial investment required to implement these same standards.

Of the various initiatives and strategies that seek to resolve informational problems in the digital environment and overcome gaps and inconsistencies, the most important is the use of universal digital identifiers.⁵⁴ We will now examine the most developed mechanisms for managing audiovisual works.

3.1 THE ISAN CODE

The most widespread instrument for audiovisual information is the ISAN code, the acronym of the International Standard Audiovisual Number (<https://www.isan.org/>). It is a standard code developed by the International Standard Organization (ISO), in particular the international standard ISO 15706.⁵⁵ This is managed by ISAN-IA, an organization formed of AGICOA (Association of International Collective Management of Audiovisual Works: <https://www.agicoa.org/index.html>), CISAC (International Confederation of Societies of Authors and Composers: <https://es.cisac.org/>) and FIAPF (International Federation of Film Producers Associations), headquartered in Geneva, Switzerland. It is responsible for maintaining and managing the ISAN system, promoting the creation and operation of local or regional agencies that assign ISAN codes.

In Latin America, ISAN management is carried out by ARIBSAN (Ibero-American Agency for ISAN Registration – Agencia Iberoamericana del registro ISAN: <https://www.aribsan.com/>), created and promoted by EGEDA (Audiovisual Producers Rights Management Organization) and SGAE (Spanish Society of Authors and Publishers – Sociedad General de Autores y Editores).

According to its administrators, the ISAN provides the following advantages:⁵⁶

- 1) It is a unique identifier of audiovisual works that helps to manage the commercial chain (producers, distributors, TV stations, etc.), allowing a work to be clearly identified.
- 2) It facilitates the electronic exchange of information between different databases, with faster management and a reduction in potential mistakes in identification.
- 3) It enables works to be catalogued and efficiently monitored.
- 4) The “unique reference number” element is becoming essential to combatting piracy.
- 5) It is a tool that improves the management and activities of the audiovisual industry.

⁵⁴ Cf. Paskin, Norman. “Toward Unique Identifiers.” *Proceedings of the IEEE*, vol. 87, No. 7, July 1999. DOI: 10.1109/5.771073. The author develops the basic elements that a universal identifier must comply with: it must be unique to the object, have an international scope, be neutral, lasting and digital, include a check digit, be granular (component parts), be a defined object, have a sufficient incremental capacity, be a set of various metadata and be linked to an administrative system that can be used by different interested parties.

⁵⁵ As an ISO standard, all ISAN intellectual property is ISO property, including the ISAN Registry. Use of and access to ISAN data is therefore regulated by the ISO regulations that ensure permanent access to all data under not-for-profit and non-discriminatory conditions.

⁵⁶ Cf. ISAN overview: https://www.isan.org/docs/ISAN_Overview.pdf.

- 6) It facilitates the registration and exploitation of the work.
- 7) It improves the management of intellectual property rights.

For the purposes of assigning an ISAN, and without prejudice to the legal definitions of each territory, an audiovisual work “consists of a sequence of related images, with or without accompanying sound, which is intended to be made visible as a moving image through the use of devices, irrespective of the means of initial or subsequent fixation”. This makes it possible to identify very different programs and content, such as advertisements, news programs, sports programs, live broadcasts, concerts and video clips.

Some clarifications must be made. The ISAN is not a replacement for registration with national copyright offices as it is assigned independently of the copyright or ownership situation of the work. It does not change in the event of changes in ownership, and neither ISAN numbers nor other identifiers take into account such transfers or ownerships of a work. However, some registries permit the ISAN number to be declared when a work is registered, such as the United States Copyright Office or the National Copyright Directorate (Dirección Nacional del Derecho de Autor) in Argentina.⁵⁷

The ISAN assigned to audiovisual content, whether it is an original work or one of a number of versions, generally lasts throughout the life cycle of the work it identifies.⁵⁸ Once a work has been registered in the database, only the relevant registrant or registration agency can add information. The code assigned can be used by authors, broadcasting organizations, CMOs, financial institutions, producers, rights holders, digital platforms and content aggregators, among others.

The purpose of the ISAN database is to centralize all ISAN numbers and compile the minimum information (for example, titles, year, length, people who worked on it, etc.) needed to distinguish similar works and distribute unique ISAN codes accordingly. This basic information is usually available on other databases of audiovisual works but, in contrast to ISAN, these other databases have additional information. For example IMDb, TMBb and other metadata providers have more extensive information, such as synopses, ratings, detailed cast and crew lists, audiences and so on. Other databases have additional information on rights holders and contractual terms, such as Avails. ISAN makes it possible to store IDs from these databases, such as the IMDb ID or the EIDR.

This is why the ISAN code assigned to a work does not prevent the use of other identifiers or the incorporation of other databases. It is possible to link to other identifiers by using a specific function, as we can see below:

The image shows a user interface for managing linked identifiers. At the top, there is a header 'Identificadores vinculados' with a help icon. Below this is a table with four columns: 'Valor de ID vinculado', 'Tipo de identifica...', 'ID de Dominio', and 'Nota'. To the right of the table are a plus sign (+) and a trash icon (🗑️). Below the table is a section titled 'ISAN vinculado' with a help icon, and a button labeled 'Añadir ISAN vinculado'.

⁵⁷ Regarding the United States, cf. <https://www.copyright.gov/newsnet/2018/706.html>. For Argentina, Provision 2 - E/2016 of the National Copyright Directorate, available at: <http://servicios.infoleg.gob.ar/infolegInternet/anexos/265000-269999/265007/norma.htm>

⁵⁸ ISAN User Guide, 2016.

Tipo de identifica... ▲	Tipo de identifica... ▲	Tipo de identifica... ▲
Ad-iD	GrID	TMS
AGICOA	GTIN	UMID
CNC	IDA	UPC
CrID	IMDB	URI
DOI	ISRC	URL
EIDR	ISWC	URN
EAN		UUID

Some countries use the ISAN more extensively than others. CMOs in Spain, France, Italy, Switzerland and Belgium, for example, require ISANs for the works whose rights they manage. The identification of works is faster and more accurate, which enables these CMOs to focus on tasks with added value, such as the resolution of rights-related conflicts. The ISAN is also used by film promotion or funding bodies. Its use is required for the European Union media program, as well as for the National Center for Cinema and the Moving Image (CNC France) for all audiovisual funding since 2017. Use of the ISAN is also mandatory in Finland, the Netherlands, Belgium, Canada (Canada Media Fund), Australia (Screen Australia) and the Republic of Korea (Kofic), among others. By requiring the ISAN for all audiovisual projects that they finance, they are able to identify these projects, track them and ultimately measure the effectiveness of the funding policy.

Various digital platforms use the ISAN: Apple, Amazon, Google Play, Microsoft, Netflix, Starz Play, Canal VoD (FR), FilmoTV (FR), OCS (FR) arte (FR/DE), Pentaflx (DE), etc. Use of the ISAN is, for example, a requirement of Apple and Amazon for the distribution of content in countries with regulations based on the ISAN, such as Switzerland.⁵⁹

The ISAN numbers granted are available free of charge so that anyone may use them. A digital platform or interested party may obtain the ISAN of a given audiovisual work by searching the freely available database individually (<http://www.isan.org/lookup/>) or directly from the rights holders of the content when it is uploaded on a platform.

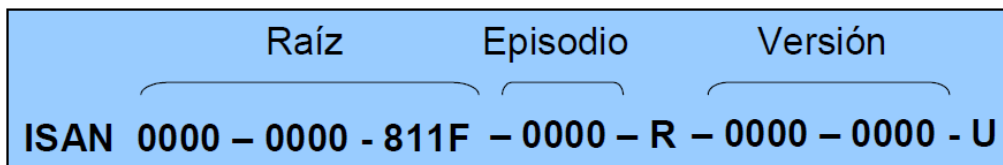
The ISAN of a work is normally requested by the producer prior to the work's exploitation or entry on the market, which facilitates the accuracy of information. Uploading is done using a registration form for the work in question.⁶⁰ However, the distributor can also do this for different versions, as can any other participant, such as content aggregators. A CMO can also do this on behalf of its members. There is no problem with double applications as the data uploaded are integrated and, in the case of any overlap, the system warns of possible duplication. The number is consistent without needing to import the window of exploitation of the work. The ISAN can show changes in the case of multiple versions, such as subtitled and dubbed versions. Some producers and distributors request an independent ISAN for the format/medium, as in the case of Blu-ray, as it includes various subtitles or dubs, as well as including bonus features, such as "behind the scenes" footage. These independent numbers make it possible to monitor the sources of income. ISAN numbers can also be requested for

⁵⁹ The ISAN has been a legal requirement in Switzerland since early 2017, and its use is mandatory in expanded reporting under Article 16a of the Film Ordinance. In turn, all digital platforms distributing content in Switzerland must report their catalogue with ISAN numbers to the Swiss authorities for statistical purposes. This enables improved understanding of the digital market in Switzerland and participation in domestic productions: <https://support.isan.org/hc/en-us/articles/360002396571-Using-ISAN-in-iTunes>.

⁶⁰ Available at: https://www.aribsan.com/documentos/Formulario_de_registro_de_obras.pdf.

“back stock” of works, namely works produced prior to the creation of the Agency, as well as an ISAN for works in development that are in the early stages of production.






The ISAN code, in written form, is an alphanumeric code made up of 24 hexadecimal digits, which are structured as follows:⁶¹



Where:

- the first 12 digits represent the source segment,
- the following 4 digits represent the episode/part of a serialized work,
- the last 8 digits represent the extended version.

Together with the number, it is possible to obtain various images that can be embedded as XMP in the digital file in different formats, such as Windows Media, Flash, QuickTime, MPEG 2 & 4, Sony HDV, XDCAM, among the main formats. This enables the scan to obtain the metadata associated with this number:

  <small>ISAN 0000-0001-68EC-0000-X-0000-0000-C</small>	JPEG format: medium resolution, better for electronic distribution and printing. This QR code is used for web display, physical formats, and in documents or tags.
  <small>ISAN 0000-0001-E0F9-0000-Z-0000-0001-4</small>	EPS format: High resolution, black and White image. This QR code is adapted for use in film credits (black background).
	JPEG format: medium resolution, better for electronic distribution and printing. This QR code is used for web display, physical formats, and in documents or tags.

For works in digital format, the ISAN number is embedded in the work itself so that it can remain permanently fixed in the original content of the audiovisual work to last throughout the life of the work. These formats enable a network or server to be scanned to detect the presence of traffic of a given work. This is an instrument that enables the use of robots or search engines so that, by means of automated mechanisms, they can verify the use of work on the platforms.

The ISAN database has an API that enables information to be exchanged between databases.⁶² This is useful for comparing an entire database or a particular file, for example the schedules or programming of TV channels. It is also possible to cross check the data in other databases to assign the ISAN to information that does not have this data, such as on

⁶¹ ISAN user guide: https://www.aribsan.com/documentos/Guia_usuario_ISAN-Version_2,2_27052005_.pdf.

⁶² API stands for application programming interface. They are sets of standardized applications that enable different computer programs to communicate with each other. APIs establish the appropriate way for a developer to request services from a program. They are defined by receiver programs, facilitate work with other applications and enable programs to communicate with each other using different computing platforms. Cf. Encyclopaedia Britannica: <https://www.britannica.com/technology/API>.

IMDb. Individual consultation is free, while permanent use requires an agreement to be concluded between the ISAN authority and the applicant.

There are as many API process linking the ISAN as there are applications. The following are the most common:

1. ISAN Registry: An ISAN user has audiovisual data but not the ISAN. Normally, a user adds audiovisual data to a third party database (to manage rights, sales, festivals, digital distribution, etc.), with the data sent simultaneously to the ISAN Registry. The ISAN API becomes the new ISAN or the existing ISAN if the work was previously registered (for example, by a co-producer). For example, when a subtitled work is registered in the Cinando database for subtitled works (<https://cinando.com>), a new version of the ISAN is assigned automatically and added to the Cinando database, in addition to the subtitle file to ensure accurate identification and recovery (search) of the subtitles whenever festivals or VOD platforms need subtitles for the work in question.
2. ISAN search: the ISAN user (or an automated process) has an ISAN and needs to collect the data associated with it, for example to enhance the data in the database, assess the quality of the data or identify data. The ISAN number is automatically sent to the ISAN Registry and the API returns all data associated with this ISAN. For example, when the content owners declare their rights with AGICOA, the second level CMO representing producers, its IRRIS system allows the ISAN to be included instead of the audiovisual description of the works. This number is used to consult the ISAN API and returns the associated data. These data are then automatically added to the IRRIS database, which makes the registration process much quicker for the user.
3. ISAN matching: the user needs to complete their database with an existing ISAN and keep their database up to date with more recent ISAN registrations, in particular when new registrations are added to the database. Much like the ISAN registration process, the audiovisual information is sent automatically to the ISAN Registry to recover an existing ISAN. The API returns the ISAN that matches the audiovisual information provided. For example, Mediapress (<https://www.media-press.tv>), a leading provider of metadata in Europe, periodically compares its database with the ISAN database to provide audiovisual data with ISAN codes to its clients, broadcasters and, in particular, VOD platforms.
4. ISAN search by criteria: the user needs to carry out a search in the ISAN Registry using a search criterion. In general, the information for the inquiry is taken from a third party database, as may be the case with the name of a director or an age range; the ISAN inquiry is sent automatically to the ISAN Registry and the API responds with a list of works that match the search; for example, all works directed by the director named during the requested range of years.⁶³

In October 2020, the ISAN database contained a total of approximately 1,350,000 registrations, with productions from Europe (54 per cent), North America (40 per cent), Asia (3 per cent) and Latin America (3 per cent). Latin America is therefore clearly a region with potential for growth as far as the ISAN standard is concerned, and stakeholders in a number of countries are in the process of implementing it.

At present, there are only 11,717 ISAN registrations relating to Argentina, Brazil, Uruguay, Peru, Ecuador and Costa Rica, which are distributed as follows:

	Brazil	Peru	Uruguay	Argentina	Ecuador	Costa Rica
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⁶³ The guide to the ISAN API is available on the ISAN platform: <https://support.isan.org>.

Number of ISANs	2,899	1,946	64	6,688	57	63
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It is clear from this that ISAN use in the counties covered in the study is relatively new and cannot be considered a widespread practice.

ISAN also has agreements with authors' associations, including Latin American associations of authors, scriptwriters and directors under the Federation of Latin American Audiovisual Author Associations (Federación de Sociedades de Autores Audiovisuales Latinoamericanos – FESAAL: <https://www.fesaal.org/>), that promote and use the ISAN to identify the works they manage.

ISAN does not claim to be a substitute other databases or replace other initiatives, but rather provide a standard identification that improves existing systems. In this sense, it is hoped that the ISANs granted are disseminated throughout all audiovisual databases and used by all industry stakeholders, in particular by those with extensive metadata. ISAN can become the shared key for connecting and merging data between various databases when it is necessary to do so for a specific purpose, application or deal.

3.2 THE EIDR IDENTIFIER

The EIDR (Entertainment ID Registry: <https://www.eidr.org/>) is a universal identification system for the film and TV industry. It is the product of actions taken by the most relevant stakeholders in the North American industry.⁶⁴ EIDR is an implementation of the Digital Object Identifier (DOI), which consists of a permanent link in the form of an alphanumeric code that uniquely identifies electronic content. The DOI system does not change over time, even if the digital object is relocated to another address, as it included information embedded as metadata (<https://www.doi.org/>). The DOI system is regulated by ISO standard 26324⁶⁵.

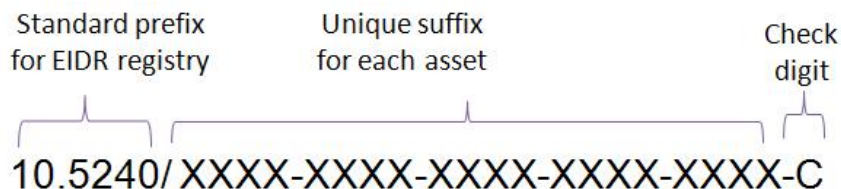
The EIDR requires a minimum set of metadata fields. In addition, it allows optional information to be uploaded, such as the ISWC (International Standard Musical Work Code), ISRC (International Standard Recording Code) or ID of the cue sheet of the audiovisual work. Like the ISAN, registration does not involve assigning any ownership or rights over the content. Any EIDR member can register content for which an ID is required by means of the EIDR web interface or specific APIs. It has a mechanism for resolving cases of duplication by updating pre-existing IDs. The registration applicant may be the owner of the content, an aggregator, a post-production company or any other body authorized to register objects. The registration assigns the EIDR, once the integrity of the information has been verified. Related objects,

⁶⁴ The Entertainment Identifier Registry Association (EIDR) is a non-profit association founded by Movielabs, CableLabs, Comcast and Rovi to support the entertainment supply chain by assigning universal identifiers for a wide variety of audiovisual objects (<https://www.eidr.org/>). The companies to which it provides support include Disney, YouTube, Comcast, ESPN, HBO, Lionsgate, Microsoft, Netflix, Turner and TIVO.

⁶⁵ A DOI number is assigned permanently to an object to provide a continuous and resolvable network link to the current information on the object, including the object's location and information about it, that can be found online. While the information on an object can change over time, its DOI number will not. A DOI number can be translated within the DOI system to values of one or more types of data related to the object identified by this DOI number, such as a URL, an e-mail address or other descriptive identifiers and metadata. The DOI system enables the creation of automated services and transactions. The applications of the DOI system include: management of the location of and access to information and documentation; management of metadata; facilitation of electronic transactions; unique and continuous identification of any form of data; and commercial and non-commercial transactions: https://www.doi.org/doi_handbook/1_Introduction.html. The use of DOI numbers began in the publishing industry, but has expanded to other digital ecosystems. For information on the predecessors of the DOI, cf. Paskin, Norman. "The Digital Object Identifier: From Ad Hoc to National to International" in Carpenter, Todd (ed.), *The Critical Component: Standards in the Information Exchange Environment*. American Library Association Publishing, 2015. ISBN 13: 978-0-8389-8744-5.

such as different versions of the audiovisual work can also be registered. A version intended for free-to-air TV, for example, may be different from a version screened in cinemas.

An EIDR consists of a standard prefix for registry, a unique suffix for each asset and a check digit.



The EIDR is specially designed to allow the automation of processes and the interoperability of systems, mainly between the producer or owner and the distribution platforms, irrespective of the type; APIs and a self-developed software kit are used for this purpose. These mechanisms enable better audience measurements to be taken, and make it possible to automate content delivery, compare catalogues and create reports on use and monetization. As an example, this is the mechanism that Google Play uses to report on the financial outcomes from exploitation of its catalogues.⁶⁶

To that end, the EIDR is an integral part of the Digital Distribution Framework, which includes the terms established by the producer of the audiovisual work in the EMA Avails specification. This refers to a mechanism implemented by the Entertainment Merchant's Association (previously EMA, now OTT.X: <https://www.ottx.org/>) together with MovieLabs, that determines the formats that can be used to transfer information on the permissions of producers and distributors. Avails is an industry term referring to information on the start and end dates of a license, territory, formats, platforms and commercial guidelines related to the supply of an audiovisual work.⁶⁷ Use of the Framework is recommended to automate digital workflows and the efficiency of the supply chain. This is formed of a set of compatible standards and specifications that cover fundamental aspects of online distribution, such as identification, metadata, availability, the delivery of assets and the submission of reports. These standards and technologies enable automation, the reduction of costs and the improvement of consumer experiences throughout the industry.⁶⁸

One of the major advantages of using EIDR, according to its operators, is the improved measurement of audiences, for both OTT platforms and TV. This also benefits the advertising industry by enabling more accurate and timely reporting. The consumption of content on, inter alia, smartphones, tablets, PCs and connected TVs can be monitored as direct measurement provides a broader scope and greater accuracy.⁶⁹ Among others, Business Bureau uses the EIDR for its Content Pulse system, which it uses to scan various OTT platforms (<https://bb.vision/content-pulse/>).

EIDR and ISAN can interact to facilitate the interoperability of databases and tracking systems. In 2012, both agencies began a convergence process.⁷⁰ In April 2019, they launched a dual registration service as the outcome of the European Commission's policy on the identification

⁶⁶ Cf. <https://www.prnewswire.com/es/comunicados-de-prensa/completado-el-ida-vuelta-del-eidr-619685343.html>.

⁶⁷ Cf. Content Availability and Offer Status Data (Avails and Title List) 2.5, Document TR-META-AVAIL, 2019, available at: https://www.movielabs.com/md/avails/v2.5/Avails_v2.5.pdf.

⁶⁸ MovieLabs, "A short guide to identifiers for the digital supply chain." [https://www.movielabs.com/md/papers/A%20Short%20Guide%20to%20Identifiers%20for%20the%20Digital%20Supply%20Chain%20\(Final%2012-13-17\).pdf](https://www.movielabs.com/md/papers/A%20Short%20Guide%20to%20Identifiers%20for%20the%20Digital%20Supply%20Chain%20(Final%2012-13-17).pdf).

⁶⁹ Cf. EIDR Overview 2018: https://www.eidr.org/documents/2018-05-25_EIDR_Overview_FINAL.pdf.

⁷⁰ Cf. <https://www.eidr.org/eidr-and-isan-to-provide-seamless-registration-of-content-ids/>.

of audiovisual standards, intended to promote opportunities in the audiovisual arts, entertainment, reporting and file management. Through the unique dual registration, the audiovisual work will remain linked to both registries, which will enable it to be easily translated from one identification system to the other by applicants and users. The dual system also enables alternative identifications assigned to the work to be uploaded, such as IMDb or TMDb, which also facilitates monitoring of the audiovisual work and the use of the identifications by different categories of stakeholders.⁷¹

Under the framework of its Audiovisual Standard ID promotion policy, the European Commission has identified the ISAN and EIDR as important stakeholders/actors in helping producers, distributors, broadcasters and online service providers to automate their workflows, reduce the costs of distribution and rights management, and extend the benefits of digital distribution. This initiative facilitates the adoption of standard interoperable audiovisual identifiers by the entire industry.

In October 2020, EIDR had 2,290,680 registrations, of which 219,097 referred to an ISAN number. A total of 91,763 EIDR registrations correspond to Latin America, of which 36,880 are for audiovisual works produced or adapted for Argentina, Brazil, Costa Rica, Ecuador, Peru and Uruguay. Of the latter, only 1,133 report an ISAN number. These 91,763 registrations linked to Latin America can be divided as follows: 38,517 cinematographic works; 1 compilation; 2,438 TV series; 1,048 seasons of TV shows; 32,956 episodes; 13,691 editions (different video clips); and 3,112 declarations (technical files linked to particular editions). It is clear from this that local producers are widely using the EIDR, which has not broadly penetrated the countries in the study, although there are more local registrations than for ISAN.

North American companies present in the region usually use the EIDR; among others, we should mention DirecTV, part of the AT&T conglomerate, because of its distribution operations. Because the EIDR has been adopted by most Hollywood studios, the content of Disney, Warner Bros., Sony Pictures, Paramount and NBC Universal can be referenced using the EIDR in the distribution of platforms operating in the region. The same can be said of global platforms with a presence in Latin America, such as Netflix, Amazon Prime, Google Play, Microsoft Movies & TV and Apple, as they have adopted the EIDR to introduce and monitor content. It is also used by many streaming platforms based in the United States and with a presence in the region, such as Disney+, HBO Max, Peacock, Disney Star, Hulu and Paramount+.

The use of the EIDR, as an unmistakable reference to the audiovisual work, makes it possible to identify a work in the case of any violations. It also enables different versions of the work to be identified so that, if one version is intended for exclusive use in one territory, each version can be linked to its exploitation rights. While the EIDR was not designed as a forensic tool, it unquestionably facilitates proof and investigation mechanisms, as well as the demonstration of the amount of damage.

3.3 IMDB (INTERNET MOVIE DATABASE)

One resource used intensively by the audiovisual industry is the IMDb database (Internet Movie Database www.imdb.com). Since it was created, in 1990, it has been a private enterprise using lists of credits compiled by Col Needham, Dave Knight and Andy Krieg, members of a film news group. The database was created by combining lists of directors, actors and actresses, and deceased participants put together by these film fans, with the assistance of other followers of the group. They then migrated to the web, established

⁷¹ Dual registration good practices can be seen here: <http://standard-ids.org/docs/Instructions%20for%20ID%20Dual%20Registration.pdf>

themselves as a company in 1996 and, two years later, was acquired by Amazon, with the initial intention of using it as platform for selling CDs and DVDs.

Nowadays, an IMDb entry for an audiovisual work includes the producers and other companies associated with the film, the release date for each country, audience ratings, box office receipts, awards won and detailed information on, inter alia, the directors, scriptwriters, actors and soundtrack. In June 2020, it contained information on 6.67 million audiovisual productions, of which 4.8 million were episodes of TV series.

The data on IMDb is available for personal and non-commercial use in different datasets, available online at: <https://www.imdb.com/interfaces/>. For example, the dataset “title.basics.tsv.gz” contains basic information on each work, indicated by a title:

- tconst: alphanumeric unique identifier of the title;
- titleType: the type/format of the title (e.g. movie, short, tvseries, tvepisode, video, etc.);
- primaryTitle: the more popular title/the title used by the filmmakers on promotional materials at the point of release;
- originalTitle: original title, in the original language
- isAdult: if it is adult content;
- startYear: represents the release year of a title. In the case of TV series, it is the series’ start year;
- endYear: TV series end year;
- runtimeMinutes: primary runtime of the title, in minutes;
- genres (string array): includes up to three genres associated with the title.

Another dataset must be used for aggregated information on actors, scriptwriters and directors. This is “title.principals.tsv.gz”, which, under the title of each audiovisual work, contains information on:

- tconst (string): alphanumeric unique identifier of the title;
- ordering (integer): a number to uniquely identify rows for a given titleId;
- nconst (string): alphanumeric unique identifier of the name/person;
- category (string): the category of job that person was in;
- job (string): the specific job title;
- characters (string): the name of the character played.

The data can be downloaded as compressed plain text files and the information can be extracted using the command line interface tools provided. A graphic user interface application based on Java is also available and able to process compressed plain text files, making it possible to search and view the information. A Python packet called IMDbPY can also be used to process the compressed plain text files in a number of different SQL databases, which allows easy access to all data for searching and data mining.

Alterations cannot be made when using the information from each dataset. In fact, IMDb expressly indicates that “you may not use data mining, robots, screen scraping, or similar data gathering and extraction tools on this site, except with our express written consent as noted below” (<https://contribute.imdb.com/dataset>). In order to use such tools or adapt the database for other uses, permission must be requested in writing.

The IMDb database is a resource used by information service providers, such as Business Bureau (<https://bb.vision/>), to build their own databases to allow them to identify the number of views on platforms or box office records.

3.4 TMDb (THE MOVIE DATABASE)

An alternative to IMDB is TMDb (<https://www.themoviedb.org/>). It is platform created collaboratively and launched by Travis Bell in 2008 as an archive for film posters. It has an international approach and a large range of data. Approximately 200,000 members actively participate on the site, whether as individuals or companies. It is a significant source of metadata and images. It also has an API that can be used for free by individual users and for a price for companies and organizations. In all cases, TMDb must be referred to as the source of the data used. In October 2020, the database contained available information on 597,791 films, 101,054 series and 2,200,758 episodes. There appears to be little information on content produced in the countries in this study.

3.5 TVDB

The TVDB (<https://thetvdb.com/>) is another collaborative database on audiovisual works. In November 2020, it contained information on 141,000 films, 115,000 series and more than 4 million episodes of TV programs, among other content. Its users are content producers, distributors, device manufacturers, aggregators and software developers, among others. Using an API, TVDB metadata can be linked for various uses. The structure (taxonomy) and uploading of data are simple. The metadata are standardized and allow the inclusion of universal identifiers. There appears to be little information on content produced in the countries in this study.

3.6 SYNCHRONIZED MUSIC IN AUDIOVISUAL WORKS AND CUE SHEETS

Music is an important part of any audiovisual work. In order for it to be identified, a “cue sheet” is used, which consists of a form completed by the audiovisual producer to inform authors’ CMOs of the music included in the audiovisual work. The standard form that follows CISAC guidelines is generally used for this.⁷² Cue sheets are used at two main points: when production on the work or relevant content comes to an end and when the royalties collected are distributed.

Synchronized music in an audiovisual work can have been composed specially or can consist of pre-existing phonographic recordings. In the former case, the audiovisual producer commissions music to be made for the audiovisual work or programming. In the latter case, a synchronization contract is concluded with the authors, publishers and rights holders of the phonogram. In many cases, there is a combination of original and pre-existing music. For live TV programs, authorization is not requested for the inclusion of pre-recorded music as this involves a simple remuneration right.

Information about the music is an important part of credits or acknowledgements as, if the soundtrack is original and composed specifically for the audiovisual work, under some legislation the composer is the co-owner on equal terms with the scriptwriter, director and producer.⁷³ Prior to screening, the producer must provide information on the music included to the CMO in the country where the work is being released. In some cases, synchronization rights must also be paid, such as with the Argentine Society of Music Authors and Composers (Sociedad Argentina de Autores y Compositores de Música – SADAIC) in Argentina.⁷⁴ In

⁷² Cf. CISAC. “Cue Sheet Standards & Rules.” Audio-Visual Experts Group & Cue Harmonization Working Group, document CISAVX17-1197, October 18, 2019. Web. <https://members.cisac.org/CisacPortal/consulteDocument.do?id=32286>.

⁷³ For example, Argentina, Law No. 11.723, Article 20.

⁷⁴ <https://www.sadaic.org.ar/shared/cdrw/pdf-Aranceles%20Cine%20%2002-2020.pdf>. The duties collected by SADAIC vary depending on whether they concern a cinematographic work, TV program, TV movie or advertising work (domestic use or for export), among other things.

addition, in support systems that distribute subsidies or grant financial credit, “tax clearance” for payments owed for such synchronization must be proved in order to receive the subsidies.

As indicated, the producer must complete the cue sheet before delivering the audiovisual work to the digital distributor as it is part of the chain of title. This is established in the model contract that the Independent Film and Television Alliance (IFTA: <https://ifta-online.org/>) offers its members, for example:

Clause 14.1 “Cue Sheets: To the extent required and available, Licensor will supply Distributor promptly after Initial Delivery with music cue sheets listing the composer, lyricist and publisher of all music embodied in the Picture. Distributor will, as needed, promptly file with the appropriate government agency or music rights society in the Territory the music cue sheets as supplied by Licensor”.⁷⁵

The cue sheet indicates the title of the audiovisual work or program, indicating whether it refers to an episode or weekly or daily edition. It also mentions the producer, production country and, in the case of live programming or a broadcaster’s own programming, the broadcast schedule and channel. The format provides for the inclusion of the ISAN number of the audiovisual work or program, although this is not mandatory. The start and end time of each synchronized track is indicated, irrespective of the duration. The type of use made of each track is also mentioned, and is one of the most important elements to declare owing to the various royalties distributed on the basis of each type of use. This is used to distinguish the opening theme, closing theme, background or incidental music, a leitmotif and other featured music. The following is a model of a cue sheet⁷⁶:

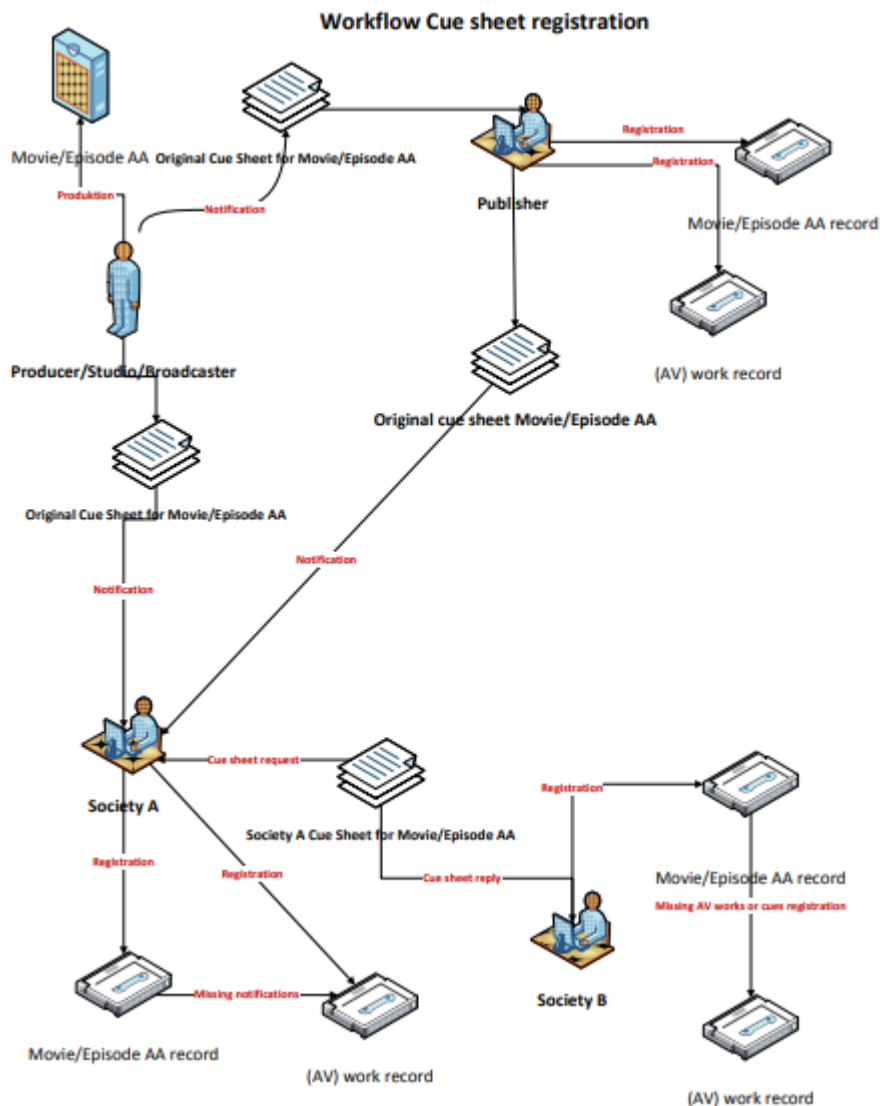
Cue Sheet Classification: [*] Original	Production Title: [*] Weekly World of Music	AV Interested Party Role:
Production Type: [*] Series	Alternative Production Title: World of Music	Name of AV Interested Party: Anymame Anymame
Production Category: [*] TV Series, Cable Series, etc.	Episode Title: Rock and Roll	AV Interested Party Role:
Submit Date/Revision Date: [*] 26/06/2015	Alternative Episode Title: Rock N Roll	Name of AV Interested Party: Anymame Anymame
First Release Date: 18/06/2015	Episode Number: 103	AV Interested Party Role:
Version: No	Country of Production 1: [*] USA	Name of AV Interested Party:
Version Category:	Country of Production 2:	
Version Comment:	Country of Production 3:	
Version Territory/Country: USA	AV Identifier Source: ISAN	
Territory of First Broadcast: USA	AV Identifier: 0000-0003-3D80-013F-8-0000-0000-4	
Language: English	Production Identifier Source: Publisher	
Network/Station: MTV	Production Identifier: 123456789	
Year of Production: [*] 2015	Cue Sheet Provider: [*] Music Productions	
Production Duration: [*] 00:30:00	Cue Sheet Prepared By: [*] Ima Worker	Fields marked with an Asterisk (*) are Mandatory
Total Music Duration: 00:05:28	Role of Cue Sheet Provider: Broadcaster	Cells highlighted in orange contain Drop Down Lists.
Season Number: 1		

Seq #	Music Title *	Music Usage *	Time In	Time Out	Music Duration *	ISWC	ISRC	Music Performer	Music Source *	Music Interested Party Role *	Name of Music Interested Party *	CISAC Society Code	IPI Number	Society of Affiliation	Music Interested Party Shares %
1	Weekly World Opening Theme	Opening Theme	00:00:00	00:00:32	00:00:32				Specialty Comp	Composer	Samuel Jones	021	00345678909	BMI	050.00
									Composer	Joseph Smith	010	00765432121	ASCAP	050.00	
									Original Publ	My Publishing	011	00678901234	BMI	050.00	
									Original Publ	His Publishing	010	00998877661	ASCAP	050.00	
2	Weekly World Bumper	Opening Theme	00:05:25	00:05:40	00:00:15				Specialty Comp	Composer	Samuel Jones	021	00345678909	BMI	050.00
									Composer	Joseph Smith	010	00765432121	ASCAP	050.00	
									Original Publ	My Publishing	011	00678901234	BMI	050.00	
									Original Publ	His Publishing	010	00998877661	ASCAP	050.00	
3	Pop Song	Background	00:12:00	00:15:43	00:03:43	T-343246000-1	JM-K40-14-002 The Band	Pre-existing	Composer/Aut	Fred Thursday	052	0012333445	PRS	040.00	
									Composer/Aut	Tom Monday	052	0023344556	PRS	040.00	
									Original Publ	Daily Publishing	052	0045566778	PRS	100.00	
4	Moonlight Sonata	Featured/Visual	00:20:01	00:20:19	00:00:18				Pre-existing	Composer	Beethoven	099	0000000000	Non Society	—
									Arranger	Joseph Smith	010	00765432121	ASCAP	100.00	
									Original Publ	His Publishing	010	00998877661	ASCAP	100.00	

The information loop of cue sheets can be seen in the image below:

⁷⁵ The IFTA International Standards Terms are available at: <https://ifta-online.org/wp-content/uploads/2019/05/IFTA-International-Standard-Terms-V2018.pdf>. The same document, regarding the chain of rights, states: “10.11. Documentation: If any Law requires Distributor to obtain a permit or clearance to exploit any Licensed Right, then Distributor will do so at its expense promptly after payment of the Guarantee. These may include any dubbing certificate, quota permit, censorship clearance, author’s certificate, certificate of origin, music cue sheet, or remittance tax form. Distributor will provide Licensor on request with copies of documents indicating compliance with such Law. If this Agreement is terminated or cancelled, then upon request Distributor will take all necessary actions to ensure that any such documents are withdrawn or cancelled, failing which Distributor authorizes Licensor to do so.”

⁷⁶ Available at: <https://members.cisac.org/CisacPortal/consulterDocument.do?id=33455>.



Source: Jens Kindermann (GEMA) "Harmonizing Film/TV Administration and Registration", Society Publisher Forum, Berlin, June 10 2015, available at: <http://members.cisac.org/CisacPortal/cisacDownloadFile.do?docId=27936>.

Each track or song is identified using standard international numbers. The ISWC represents composers and publishers and the ISRC represents the phonogram data of pre-existing music that has already been recorded. For each author and publisher, the relevant IPI (Interested Party Information) is indicated, as well the association with which each participant is affiliated and the corresponding percentage of royalties distributed for each participant and each track. When a uniform identifier is requested for the audiovisual work, such as the ISAN or EIDR, the music data can be embedded in the metadata of the audiovisual work with reference to the ID of the corresponding cue sheet.

The ISWC is a unique, permanent and internationally recognized reference number for identifying musical works and constitutes the implementation of ISO standard 15707:2001.⁷⁷ It is managed by the CMOs, which act as local or regional agencies under CISAC, which is the registration authority. This is the responsibility of SADAIC in Argentina, ECAD in Brazil, the Association of Musical Composers and Authors (Asociación de Compositores y Autores

⁷⁷ Cf. <https://www.iswc.org/>.

Musicales de Costa Rica – ACAM) in Costa Rica, the Ecuadorian Society of Authors and Composers (Sociedad de Autores y Compositores del Ecuador – SAYCE) in Ecuador, the Peruvian Association of Authors and Composers (Asociación Peruana de Autores y Compositores – APDAYC) in Peru and the General Association of Authors of Uruguay (Asociación General de Autores del Uruguay – AGADU) in Uruguay.

The ISWC number does not refer to a work's intellectual property and remains unchanged in the event of changes in ownership and without prejudice to exploitation contracts on the musical work. Each version of a musical work has its own ISWC. When the music is created specifically for an audiovisual work or existing music is adapted, a new ISWC must be requested for each track.

The ISWC includes the IPI number of the author, composer, arranger or publisher. The IPI system and database are managed by SUISA, the Swiss authors' association, and is part of the CIS (Common Information System) of CISAC, together with the ISWC and ISAN (<https://www.ipisystem.org/>). The authors of the audiovisual work, such as directors and scriptwriters, can also be identified by their own IPI number; this reports the CMO to which the author belongs, among other information. The IPI system also used an API that allows data to be shared with other databases.

The CWR (Common Works Registration) is also used to identify musical works. It is a common or standard format for registration used by publishers in their dealings with CMOs. It allows the publisher to register a work with the CMO in their own country to manage performance rights or mechanical rights. The relevant stakeholders are identified using the IPI and an ISWC number is added to the work before the file is returned to the publisher. With the work identified in full, including the percentages of the rights administered, it circulates among foreign branches of the publishing house to be sent to other CMOs in their own territories. The CWR provides a means of monitoring the registration situation and facilitating communication between publishers and CMOs. It also details the specific percentage of synchronization rights allocated to each stakeholder. This is intended to enable a more accurate flow of data on musical tracks between publishers and CMOs, especially in regard to royalty payments.⁷⁸ CISAC is responsible for managing and maintaining the CWR.

Cue sheets are included by the receiving CMO in the CISAC Audio-Visual Index (AV Index), which forms a list with the information about the audiovisual works and about which CMO has the cue sheet for the audiovisual work in question. Each CMO makes cue sheets available so that they can be used by equivalent associations in other territories when a user declares that a given audiovisual work has been communicated to the public or otherwise used and that they have received payments for thus use and that distribution must be carried out accordingly. It is an index that identifies which CMO has the cue sheet for a given audiovisual work, rather than a database of musical works or of cue sheets. This is why is it inevitable that the CMO that has to carry our distribution for the audiovisual work for the first time must request the relevant cue sheet from the original company.⁷⁹ Identifying the audiovisual work provides a link to the music included, enabling the corresponding royalties to be paid.

As indicated, for pre-existing music recorded in phonograms, the universal identifier is the ISRC. It is usually assigned by the record company, but it should be noted that it is sometimes requested by the performer personally or by third parties, such as aggregators. Cue sheets provide for the inclusion of synchronized music in an audiovisual work when such music is a commercial phonogram. The remuneration right of authors, phonogram producers and

⁷⁸ For more details on the operation and elements making up the CWR, cf. Zetterlund, Anders. "Common Works Registration User Manual." CISAC, document CWR11-1494. Web. <https://members.cisac.org/CisacPortal/consulterDocument.do?id=22272>.

⁷⁹ Cf. CISAC, IDA and AV Indexes: <https://www.cisac.org/What-We-Do/Information-Services/IDA-and-AV-Indexes>.

musical performers for public communication of the audiovisual work containing the phonogram is not treated consistently between countries. As a result, in Argentina, for example, owing to the interpretation of the Supreme Court of Justice of the Nation, the collection of takings for theatrical releases is not managed, unless distribution of the phonogram took place prior to the start of the film, during the interval or at the end.⁸⁰ In contrast, collections are made for recorded music broadcast on TV. However, under Ecuadorian and Peruvian legislation, prior to ratification of the Beijing Treaty, a right of remuneration was recognized in favor of artists (including musicians) for the public communication of audiovisual recordings. These differences emphasize the need to identify recognized public communication from country to country as, even when a territory does not recognize the right itself, for the purposes of national application synchronized music must be identified in all countries in which the right is recognized.

The treatment by platforms of music composed for audiovisual purposes depends on the business model of each platform and on the type of rights they have over each audiovisual and musical work. When the OTT is the owner of the content by being the producer, musical compositions are generally made under a rights transfer agreement, resulting in the ownership of the producing platform. This music does not generate any payments from the exploitation of audiovisual works, except when local legislation has reserved an express remuneration right in favor of composers. On the other hand, if the platform is the licensee rather than the owner of the work, the rights belong either to the composers or to the producer of the licensed work. In these cases, cue sheets are used to distribute the amounts that the platform must pay for the music incorporated.

As an example, in Peru, APDAYC, the association for musical authors and composers, receives information and payments for music in relation to audiovisual works streaming on Netflix. To carry out distribution, it must then assign these amounts to each rights holder, regardless of the territory or the relevant CMO. For this purpose, it has contracted BackOffice (<http://www.backoffice-ms.com/>) to produce a detailed report on distribution. BackOffice is a company that creates reports on collection and distribution for the management of copyright over musical works. To create its database, it receives basic information from the CMOs representing the composers and publishers with which it works, representing over 70 countries. They have adopted the CWR and ISWC standards to identify works. The database is standardized across multiple territories. While the main services are based around settlements for digital music sales, they now also provide services for music incorporated into audiovisual works made available on VOD platforms. Using the national reports issued by platforms such as Netflix, and by means of cue sheets, they are able to create detailed reports on the distribution of royalties.

The CMOs representing performers and phonogram producers do not use cue sheets for distribution as they only need to know the ISRC of each publicly communicated phonogram, which are identified using digital fingerprinting systems. The digital fingerprints are used to automate the creation of cue sheets. Identification algorithms are applied to determine the start and end of each song in accordance with the scenes in the audiovisual work. Companies such as BMAT, Monitec (<https://www.monitec.com/index.php>) and Monitor Latino (<http://monitorlatino.com/>) provide this service to audiovisual producers and broadcasting organizations.

3.7 IDA

IDA (International Documentation on Audiovisual works: <https://www.ida-net.org/>) is an international online database that contains information on audiovisual productions such as

⁸⁰ SADAIC c. Andesmar S.A., CSJN, S. 129. XXXVII, March 23, 2004.

films, TV programs, documentaries, series and short audiovisual works. It is provided by CISAC and it available to its members, i.e. CMOs. It is a global repertoire that manages original productions, and versions and adaptations in other languages and formats. The registration of each work contains basic information, referring to the title in its various languages, subtitles, producers, year and location of production, languages in which it is available, rights holders, ISAN, operating platforms and a unique IDA code.

The IDA code is used by CMOs to identify audiovisual works and rights holders to enable the distribution of revenue collected with other equivalent CMOs, whether or not they are from the same country. Each local CMO shall transfer the income collected to its author members or their representatives. The unique IDA code is also used to allow CMOs to exchange information on audiovisual works as it is part of the Professional Rules of CISAC and the binding resolutions for audiovisual societies, rules intended to improve the transparency and quality of service for all members.⁸¹ These rules indicate, among other things, that each CMO must promptly collect relevant information about works exploited by its licensees (#15.d), and keep accurate and up to date documentation relating to the scope of its repertoire (#17.a);

According to CISAC, IDA has the following functions and benefits:

- Centralizes and provides authorized information on audiovisual works and rights holder at the international level;
- Facilitates the identification and exchange of documentation on audiovisual works and their rights holders between CMOs;
- Speeds up the transfer of royalty payments between audiovisual societies;
- Enables information on audiovisual works and stakeholders to be consulted and recorded;
- Enables the import and export of files, as well as their batch processing, using web services.

IDA is an integral part of the CIS-net (Common Information System) of CISAC.⁸²

3.8 VRDB

The Societies' Council for the Collective Management of Performers' Rights (SCAPR) is the international association that brings together CMOs for audiovisual performers. It is headquartered in Brussels, Belgium, and is made up of 56 CMOs from 42 countries. These include the relevant Brazilian CMOs, ABRAMUS, SOCINPRO and UBC, which represent musical performers. Its fundamental purposes and tasks are managing information and databases on the rights administered by each local association.

Under Article 4 of the SCAPR statutes, in order to qualify as an ordinary member, a CMO must have established a database containing information on registrations and the royalties it manages, as well as on both domestic and foreign rights holders. Members must also use a

⁸¹ According to CISAC, the Professional Rules are a set of mandatory principles established by the organization to guarantee that members are able to carry out their activities in line with best professional, governmental, administrative, financial and technical practices. They entered into force in 2009 for societies in the dramatic, literary and audiovisual repertoire and the most recent version was adopted in 2019. Available at: <https://www.cisac.org/services/business-and-governance/professional-rules>.

⁸² CIS-Net is a network of databases built upon the CIS Standards. Each database constitutes a node within the overall network. For more information about CIS-net, cf. <https://www.cisac.org/services/information-services/cis-net>.

unique and recognized identification number for international performers, in addition to participating in the International Performers Database (IPD) and VRDB databases.⁸³

In the case of VRDB (Virtual Recording Database), the database is intended to facilitate global development of reciprocity. The member societies collect royalties for the use of sound recordings and audiovisual works in their respective territories. These royalties are then distributed to performers (and producers in some cases) at the national level by each member society and by means of reciprocal agreements at the international level. The VRDB system provides a centralized mechanism that enables CMOs to identify recordings more efficiently and accurately, and exchange the information on performers needed to distribute royalties appropriately at the local level. VRDB thereby maximizes the royalty streams exchanged between SCAPR member associations.

According to SCAPR, some of the benefits for members using the VRDB are:

- Reducing the workload by increasing automation;
- Obtaining and sharing information early;
- Standardizing process and agreeing on a common format for exchanging information;
- Increasing transparency, participation and cross-border revenue exchanges;
- Reducing costs for rights holders.

The essential elements of VRDB are as follows:

- It is a common means of clustering recordings or works together and creating a single version of an audiovisual work or phonogram that might otherwise be duplicated in different countries.
- It is a central source of accessible repertoire data, with a global repertoire that will be stored and maintained centrally in one place, allowing data to be submitted, queried, processed, and extracted for the benefit of all members.
- It is a scalable technical solution that supports future data volumes and processing requirements globally, facilitating cross-border payments.
- It allows common matching algorithms and validation, and ensures all participants match usage information and listings in a similar manner to create commonality of results.
- It creates a central repository for usage information/play lists.

It is local CMOs that seek to use VRDB, which can only be modified by those CMOs or any other CMO with sufficient capabilities. As it is a database owned by the CMOs, only they may consult it, although interoperability with other databases is allowed as it enables the incorporation of other universal identifiers, such as ISAN, EIDR or ISRC, which are voluntary fields. As at January 2021, 292,536 audiovisual works were registered in VRDB.

The IPD is aimed at identifying individual performers on sound recordings or in audiovisual works and the CMO to which they belong, as well as the type of mandate the CMO has to collect on the performer's behalf. The starting point for identifying each performer is the legal mandate that the performer has granted their CMO. A unique identifier is assigned for each performer, which enables the CMOs that are SCAPR members to exchange information in a reliable manner, simplifying and improving the matching algorithms and adequate identification

⁸³ In line with Article 9 of its statutes, SCAPR has created a Databases Committee, which is responsible for developing and managed the above-mentioned databases. These are technical platforms available to CMOs to enable them to process and exchange data on performers and recordings of concerts or other registered events. All ordinary members are required to contribute to these databases and, although the databases are the property of SCAPR, each CMO remains the owner and administrator of its own information.

of rights holders, including in other databases and information systems linked to the IPD. As at January 2021, 1,052,845 performers had been identified with their own IPD identifier, including musical and audiovisual performers.

The following are the registrations for the countries studied in this Project:⁸⁴

Pais de producción / nacionalidad	OA en VRDB	Intérpretes IPD (audiovisuales y musicales)
Argentina	36	2243
Brasil	1	80978
Peru	0	1069
Uruguay	0	178
Ecuador	0	131
Costa Rica	0	52

(From left to right: Country of production/Nationality; Audiovisual work in VRDB; IPD performers (audiovisual and musical))

4 INFORMATION ON CMO REPERTOIRES

In Part 2 of the study on the Legal Framework, we established which rights over audiovisual works are managed collectively. In such cases, whether concerning the rights of producers or other owners, or the related rights of performers and phonogram producers, the representative bodies must have computer systems and databases that allow them to identify their repertoires and the uses of works or rights they represent. As was indicated, in cases of compulsory management or extended licenses, and to a lesser extent for the presumption of representation, there is reduced need to inform users of the make-up of the repertoire. In contrast, in cases of individual representation, it may be necessary to demonstrate the works for which payments must be made. However, it is essential to accurately identify the works used to distribute the revenue collected.

For audiovisual works, the general principle is that when an OTT platform makes a work available it concerns an individual management right that lies with the producer, although some rights may be delegated so that they can be managed collectively. For other rights holders, all rights are managed collectively, whether they are exclusive or simple remuneration rights.

4.1 AUDIOVISUAL PRODUCERS

In some of the countries in this study, there are CMOs formed of and actively representing audiovisual producers. There is, for example, EGEDA Ecuador (<https://www.egeda.ec/>); EGEDA Peru (<https://www.egeda.com.pe/>) and EGEDA Uruguay (<https://www.egeda.org.uy/>). In these three countries, audiovisual producers are represented in the collective management of the right to rebroadcast audiovisual works when cable operators retransmit free-to-air TV channels. EGEDA also collects royalties for the public communication carried out by commercial establishments using free-to-air, cable or satellite TV channels that include audiovisual works (hotels, restaurants, clinics, etc.).⁸⁵

⁸⁴ In the case of performers, the vast majority of registration relate to musical performers.

⁸⁵ As an example, here are the license and the fees for public communication of audiovisual works in cases of domestic use in Uruguay: https://eu1.documents.adobe.com/public/esignWidget?wid=CBFCIBAA3AAABLbqZhCEPs_1HnShMfIYbSfbViOPgH4reklRzJMiWTh-8mCKm1EwDhYynu9ixnEiE5JEPkA*.

In the case of revenue collection for audiovisual works included in signals retransmitted by cable operators, the rate is calculated in relation to the number of subscribers. There is no differentiation on the basis of the type of content, although there is an implied calculation as to which content includes works that must be remunerated. This is because a significant amount of the signals' programs are other types of content (news, sports, etc.). CMOs do not carry out a differentiated or additional revenue collection if the cable channel has a TV Everywhere platform service. This is assumed to be an additional service that the subscriber receives and for which a higher subscription fee is paid, which also remains covered by the general rate. Regarding public communication carried out by commercial establishments, the fees are set at a flat rate in line with criteria related to occupancy, retail outlets and the surface area of premises, among other things; the content being communicated in each case must also be identified.

For distribution, it is necessary to identify which audiovisual work includes each signal, whether it is an air or closed signal, depending on the case. In turn, there must be an audience-related criterion that determines the reach of each work. The works included in each signal are identified using schedules or third-party reports that provide information on the schedules of each channel and in each country. In the case of EGEDA, reports are currently produced by BMat (<https://www.bmat.com/es/cmoss/>). In addition, to apply an audience coefficient to the works identified, the information is cross-referenced with reports from agencies such as IBOPE, BB, Nielsen and KantarMedia.

The repertoires of producer CMOs in these countries are shaped by producers' registration of their works, together with the foreign repertoires of equivalent associations with which they have reciprocity agreements. EGEDA is supporting and encouraging producers in requesting an ISAN number for every work. As it is not a legal requirement, this is matter of convincing producers and making clear the advantages of being able to identify works, not only so as to receive royalties domestically but also to identify these works when they are used abroad.

In addition to this, there are the efforts of EGEDA to combat digital piracy and facilitate the monetization of content on OTT platforms, such as through the YouTube Content ID service. These services are provided to members through individual authorizations and require greater precision in identifying the works managed.⁸⁶

4.2 DIRECTORS

CMOs for directors have their own computer system, which overlaps with and complements the equivalent systems of associations representing other rights holders. In the countries in this study, the relevant CMOs are:

- Argentina – Argentine Cinema Directors' Association (Directores Argentinos Cinematográficos, DAC: <http://dac.org.ar/es/>);
- Brazil – Brazilian Cinema and Audiovisual Directors' Association (Diretores Brasileiros do Cinema e do Audiovisual, DBCA: <https://diretoresbrasil.org/es/>);
- Ecuador – Association for the Management of Audiovisual Artists and Authors of Ecuador (Sociedad de Gestión de Artistas y Autores Audiovisuales del Ecuador, UNIARTE: <https://www.uniarte-ec.org/>);
- Uruguay – AGADU (<https://www.agadu.org/index.php>).

DAC, DBCA and AGADU are part of the Latin American Audiovisual Directors' Alliance (Alianza de Directores Audiovisuales Latinoamericanos, ADAL:

⁸⁶ Cf. https://www.egeda.com/documentos/Youtube_Folleto_2013.pdf.

<http://www.directoreslatinoamerica.org/es/>) and FESAAL (<https://www.fesaal.org/>). In Costa Rica and Peru, there are currently no associations managing the rights of audiovisual directors.

These associations manage the right to receive remuneration for public communication. In Ecuador, they also manage remuneration for exhibition; however, directors in that country do not have a recognized right of disposal. At present, royalties are not being collected for disposal on VOD platforms to the benefit of directors in any of these countries.

For the purposes of integration into the repertoire, all directors must declare their works with/to the relevant association as, if not, they will not be able to participate in the distribution of royalties collected, whether they are locally managed or remittances received as a result of reciprocity with a foreign country. Prior to registration, directors must sign the relevant contract of representation. Registration of the work is done through individual declaration by means of a digital form that can be completed online. In the case of AGADU, this is generic form for all types of works, and indicates the title, genre and release date. In the forms used by DAC and DBCA, the data are more specific for an audiovisual work and include the option to declare the ISAN of each work. It is not necessary to provide a complete copy of the work in any case. These are the data required by DAC:



Formulario de declaración de obras cinematográficas

Detalle puntual de declaración solo para obra cinematográfica de dirección/realización av.

Título original:

Otros títulos:

Original a) Remake* b) Adaptación**

Guionistas:

Actores principales:

PROPORCIÓN DE REPARTO DE DERECHOS DIRECCIÓN/REALIZACIÓN

Director/Realizador:	<input type="text"/>	Corresponde (%):	<input type="text"/>
N. Artístico/Seudónimo:	<input type="text"/>		
Co-Director/ Co-Realizador:	<input type="text"/>	Corresponde (%):	<input type="text"/>
N. Artístico/Seudónimo:	<input type="text"/>		
Co-Director/ Co-Realizador:	<input type="text"/>	Corresponde (%):	<input type="text"/>
N. Artístico/Seudónimo:	<input type="text"/>		

Fue Será Estrenada comercialmente en cine el día: (dd-mm-aaaa)

DATOS SALA CINE DE ESTRENO

Nombre: Provincia: Localidad:

Producida por:

Países de rodaje:

Idiomas:

Formatos de obra: Largometraje Mediometrage Cortometraje Otros

Tipo de obra: Documental Ficción

Duración en minutos:

Estrenada en 35mm: Si No

HD 2k o superior - DCP: Si No

Video proyección Standard SD: Si No

Animación: Vivo Animado Vivo + Animado

Color: Color B-N B-N/Color Otros

Nota o aclaración de su obra:

Contrato producción: Se adjunta No se adjunta

At present, for distribution purposes, reports on the scheduling and ratings of each channel are cross-referenced with the works identified by title.

4.3 SCRIPTWRITERS

In the countries in this study, at present, scriptwriters' royalties for the public communication of audiovisual works are collected in the following countries:

- Argentina – General Association of Authors of Argentina (Sociedad General de Autores de la Argentina, ARGENTORES: <https://argentores.org.ar/>);
- Ecuador – UNIARTE (<https://www.uniarte-ec.org/>);
- Uruguay – AGADU (<https://www.agadu.org/index.php>).

These associations collect royalties for free-to-air and pay (cable and satellite) TV. ARGENTORES also collects revenue from digital VOD platforms, and its practice on the management of rights on audiovisual platforms is the most up-to-date in the region. It has a tariff scale that establishes the fees for Video on Demand, fixed at 3 per cent of the price for TVOD, 3 per cent for SVOD subscribers, 3 per cent of the advertising revenue collecting on AVOD and a set amount for free VOD with no advertising.⁸⁷

The repertoire administered by ARGENTORES is broad as its legal system grants it the ability to represent “national and foreign creators of literary, dramatic, dramato-musical, cinematographic, televisual, radiophonic, choreographed, pantomimic, journalistic and entertainment works, and scripts for the continuation of shows, whether they are written or disseminated by radio, cinema or TV, or fixed in a material medium able to record sounds and images or image and sound” (Article 1, Law No. 20.115). In terms of its members, it offers a

⁸⁷ Cf. Author system and license for use of the Argentores repertoire for VOD services: <https://argentores.org.ar/nuevas-tecnologias/aranceles-nuevatecnologias/>.

model contract between the producer and the scriptwriter of the content of program that will be made available via Internet platforms.

It also represents “foreign authors’ associations, with which it is linked through assistance and reciprocal representation agreements, and is the sole administrator of the works mentioned and the sole recipient of the sums received for use of the above-mentioned authors’ repertoires”. The license referred to in the tariff scale is a non-exclusive authorization granted to the person responsible for managing content (platform) that has its legal domicile in the Republic of Argentina for the legal use of the works in the ARGENTORES repertoire, exclusively for Video on Demand and similar services, in accordance with the way in which the works in the ARGENTORES repertoire are made available to users, understood as that which allows the public to choose the audiovisual work and the time of its reception. As can be seen, user interactivity is crucial.

One of the requirements of the ARGENTORES license is that, prior to the start of the activity, the platform incorporates a “standard monitoring system with unrestricted access [...] in order to record the Sworn Declaration of the works available and the works accessed by users” on the platform (#V.b). Section #VIII then indicates the information that the platform is required to provide on a monthly basis. All of the works used by the platform must be reported to ARGENTORES as a sworn declaration in accordance with the format established by ARGENTORES, which must include the income obtained by the services licensed and created during the period in question and the transactions conducted on VOD platforms. The detail shall include: 1) the total number of works available; 2) the total number of works accessed by users (transactions); 3) the full title of the work; 4) the names of the authors of each work used; 5) the total monthly income from this activity; 6) the total number of subscribers during the period; and 7) the income from subscribers during the period, if any.

In section #X, the license also includes the ability of ARGENTORES to carry out the necessary checks and controls to verify the accuracy and integrity of the sworn declarations provided by platforms, which are obligated to collaborate fully with such control processes. Platforms are also required to bear the cost of the controls if there are differences greater than 10 per cent.

In practice, the format and content of the reports is agreed between ARGENTORES and each platform. The Systems Area for CMOs decodes the reports to individually identify the works used. These reports do not usually include universal identifiers, such as ISAN, as few works have embedded this code. ARGENTORES also uses external auditing services to identify the works individually, such as the services provided by Business Bureau.

4.4 PERFORMERS

In the countries in this study, the CMOs collecting revenue for the public communication or disposal of audiovisual performances are the following:

- Argentina – Argentine Society for the Management of Actors and Performers (Sociedad Argentina de Gestión de Actores e Intérpretes, SAGAI: <https://www.sagai.org/>);
- Ecuador – UNIARTE (<https://www.uniarte-ec.org/>);
- Peru – Inter Artis Peru Society for Audiovisual Artists (Inter Artis Perú Sociedad de Artistas del Audiovisual, IAP: <https://interartisperu.org/>);
- Uruguay – Uruguayan Society for the Management of Actors and Performers (Sociedad Uruguaya de Gestión de Actores Intérpretes, SUGAI: <https://sugai.org.uy/>);
- In Brazil, Inter Artis Brasil (<https://www.interartis.org.br/>) is authorized to collect royalties, but this has not occurred to date. However, it does distribute revenue collected by foreign associations with which it has reciprocity agreements.

None of these bodies are currently members of SCAPR as they have been created relatively recently and have only begun to collect revenue.⁸⁸ These bodies collect revenue for theatrical exhibition, free-to-air and cable broadcasts and public communication in local businesses. At present, none of them collect revenue from access on OTT platforms. In Argentina, legal action is pending.⁸⁹ Peru recently ratified the Beijing Treaty, deciding in favor of the right of remuneration for public communication; specific legislation on disposal is pending, which it is hoped could be used to allow IAP to have short-term revenue collection mechanisms on VOD platforms.

In order to construct a repertoire, these association ask their members and representatives to register the works in which they have participated. The data are supplemented by information from the repertoires of associations with which there are reciprocity agreements. Universal identifiers are not used. A model form for registering a work can be seen below:


DECLARACIÓN DE OBRAS

FECHA	DD	MM	AA
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DATOS PERSONALES DEL TITULAR

Nombres		Apellidos	
Nombre/s Artístico/s			

TÍTULO DE LA OBRA AUDIOVISUAL

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DATOS DE LA OBRA AUDIOVISUAL

Año	Participación (rol actoral)		
Artista	<input type="checkbox"/>	Actor	<input type="checkbox"/> Actriz
Autor	<input type="checkbox"/> Director	<input type="checkbox"/> Guionista	<input type="checkbox"/> Animador Audiovisual
Personaje (nombre)			
	<input type="checkbox"/> Cine	<input type="checkbox"/> Serie	<input type="checkbox"/> Telenovela
	<input type="checkbox"/> Cortometraje	<input type="checkbox"/> WEB	<input type="checkbox"/> Otro
Productora			
Medio de Trasmisión (nombre del Canal de TV, Cine, Plataforma Online)			

CAPÍTULOS EN LOS QUE TRABAJÓ

Fecha de Emisión	Título / Capítulo / Número	NO LLENAR (Uso Exclusivo Visionado)	
		Categoría	Puntos

As can be seen, UNIARTE uses the same form for authors and performers as it is in the only country in this study that has a single body representing both categories of rights holders.

For the distribution of royalties, the information in the repertoire is compared with the list of works broadcast, identified by title and in accordance with its own information and reports from audience measurement agencies, which are then assigned internal codes for each work and each episode. Here are some examples:

⁸⁸ According to consultations with CMOs, it is difficult for CMOs that are not well developed to comply with the obligations SCAPR imposes on its members, with the exception of SAGAI.

⁸⁹ Cf. press releases: <https://www.iprofesional.com/actualidad/289934-los-actores-argentinos-avanzan-con-la-demanda-contra-youtube> and <https://www.lanacion.com.ar/cultura/la-sagai-le-hace-juicio-youtube-derechos-nid2237013/>

SEGUNDO
TRIMESTRE

OBRAS
LIQUIDADAS

SAGAI
2020

CABLE | AIRE | ONE | PLATAFORMAS WEB DE TEATRO | AEROLÍNEAS ARGENTINAS | CANALES DEL INTERIOR

TÍTULO	TEMP.	#CAP.	NOMBRE CAPÍTULO	AÑO	DIRECTOR
Don Gabi Y Su Pandilla				2011	Alberto Mar
Donde Duermen Dos... Duermen Tres				1979	Enrique Cahen Salaberry
Doña Disparate Y Bambuco				2019	Georgina Barbarossa
Dorian Gray, El Retrab				2013	Pepe Cibrian Campoy y Angel Meñier
Doce Besunos				1958	Kurt Land
Doce Locos En El Aire				1976	Pablo Ortega
Doce Meses Dos				2012	Diego Kaplan
Doce Pasos En Apuros				2014	Jimmy Hayward
Doce Son Familia				2017	Hugo Galán
Dr Cláudio Pérez, Suez				1982	Emilio Vieyra
Dracula				2011	Pepe Cibrian Campoy
Dracula				1962	Francis Ford Coppola

PERIODO DE EMISIÓN
2007 - 2013

OBRAS
LIQUIDADAS

SAGAI⁴¹

Nº SERIE	Nº OBRA	TÍTULO	TEMP.	NOMBRE / CANTIDAD DE CAPÍTULOS	AÑO	DIRECTOR
7718	8831	Casi Angeles	4	Tiempo De Cambios	2010	Flavio Rondelli Y Mauro Scandolari
7718	9129	Casi Angeles	4	La Resistencia: Segunda Parte	2011	Mauro Scandolari, Flavio Rondelli
7718	9128	Casi Angeles	4	La Resistencia: Primera Parte	2010	Mauro Scandolari, Flavio Rondelli
7718	9127	Casi Angeles	4	Un Pacto	2010	Mauro Scandolari, Flavio Rondelli
7718	9126	Casi Angeles	4	Aleluya	2010	Mauro Scandolari, Flavio Rondelli
7718	9125	Casi Angeles	4	Detenidos En Un Momento	2010	Mauro Scandolari, Flavio Rondelli
7718	9124	Casi Angeles	4	La Explicación"	2010	Mauro Scandolari, Flavio Rondelli
7718	9123	Casi Angeles	4	Lo Que No Se Puede Cambiar	2010	Mauro Scandolari, Flavio Rondelli
7718	9122	Casi Angeles	4	Cayendo Lentamente	2010	Mauro Scandolari, Flavio Rondelli
7718	9016	Casi Angeles	4	La Hora De Volver A Casa	2010	Flavio Rondelli, Mauro Scandolari
7718	9015	Casi Angeles	4	Un Ladrillo	2010	Flavio Rondelli, Mauro Scandolari
7718	9014	Casi Angeles	4	Tu Canción	2010	Flavio Rondelli, Mauro Scandolari

5 DIGITAL RIGHTS MANAGEMENT OF AUDIOVISUAL WORKS

For the purposes of this study, digital rights management (DRM) will refer to all technology used by copyright holders to monitor the use of the digital material they distribute and to limit the use of the content in accordance with their intentions. It is not used exclusively in the audiovisual industry as audiobooks, digital music sales, satellite channels and more use equivalent mechanisms.⁹⁰ It is a necessary resource as the digitalization and online distribution of works requires them to be identified and monitored. In this regard, Article 11 of the WCT states that Contracting Parties “shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights [...] and that restrict acts, in respect of their works, which are not authorized by the authors concerned or permitted by law”. In turn, in its Article 12, it establishes similar obligations to prevent any attempt “to remove or alter any electronic rights management information without authority” or “to distribute, import for distribution, broadcast or communicate to the public, without authority, works or copies of works knowing that electronic rights management information has been removed or altered without authority.”⁹¹

⁹⁰ Regarding digital rights management on digital platforms in general, cf. Kim, Daniel. “How Netflix protects its content.” *medium.com*. Medium, May 7, 2019. Web. <https://medium.com/pallycon/how-netflix-protects-contents-part-1-a40508ed0001>.

⁹¹ These rules have equivalent parallels in Articles 18 and 19 of the WIPO Performances and Phonograms Treaty and in Articles 15 and 16 of the Beijing Treaty on Audiovisual Performances.

The WCT also clarifies that “rights management information” means information which identifies the work, the author of the work, the owner of any right in the work, or information about the terms and conditions of use of the work, and any numbers or codes that represent such information, when any of these items of information is attached to a copy of a work or appears in connection with the communication of a work to the public.”⁹² This is why rights management information, in addition to being analyzed in practical and economic terms, constitutes a legal kind of factual element for the standards establishing protection mechanisms. This means that not only does the audiovisual itself remain protected, but also the elements that allow it to be identified, monitored or used under certain conditions established by the owner or other holders of rights over the audiovisual work, such as musical authors, performers or actors, among others.

This provision has been incorporated into national legislation in some of the countries in this study. Article 46 (D) of Law No. 9739 of the Eastern Republic of Uruguay, for example, establishes that “Any person that alters or removes, without the authorization of the holder of the rights protected by this law, the electronic information provided by the holders of copyright or related rights to enable the management of their economic or moral rights, in such a way that these rights may be negatively affected, shall be punished with a prison sentence of three months to three years. The same penalty shall be applied to any person that distributes, imports for distribution, broadcasts or communicates to the public, without authorization, copies of works, performances or phonograms, knowing that electronic information provided by the holders of copyright or related rights has been removed or altered without authorization.”

The best-known means of DRM, apart from universal identifiers and metadata embedded by the audiovisual producer or their agents, are watermarks and digital fingerprints. These codes are incorporated in the audiovisual work during the post-production stage by the aggregator or by each individual platform. The process of using DRM includes encryption of the content (DRM packaging) and a subsequent decryption (playback process) through access to the key or code that enables this content to be opened (encryption key management). The DRM and conditions of use are transmitted and made available for each item of content. These conditions can indicate the validity and enforceability of the license of each user and the number of times that each work can be viewed, among other uses.

Each browser uses its own DRM system; there is therefore one for Apple, one for Microsoft, one for Google and so on.⁹³ Platforms, in turn, develop their own keys for each of these environments. As a result, if Netflix offers the option of saving content to watch later offline, a specific key must be developed for all possible environments available to users, whether Android, IOS or something else, depending on the device used. This is an unavoidable requirement in facilitating portability and interoperability, which is why today’s platforms are “Multi-DRM”.⁹⁴ Because of this mechanism, DRM requires installations on user devices and platform servers.

Alongside the means of DRM that allow legal enjoyment of the content, there are usually also other means that enable monitoring of any potential violations. This is known as “forensic DRM”, which permits a copyright holder or a VOD platform to uncover content being distributed

⁹² These governmental obligations – which are the preserve of rights holders – apply to both exclusive rights and remuneration rights. Cf. Ficsor, Mihály. *Guide to the Copyright and Related Rights Treaties Administered by WIPO and Glossary of Copyright and Related Rights Terms*. Geneva: WIPO, 2003: p. 221 *et seq.*

⁹³ For example, the specifications followed by Widevine DRM, used by Google Play, YouTube, Netflix, Hulu and Amazon, among others, can be consulted. Cf. <https://www.widevine.com/solutions/widevine-drm>

⁹⁴ Cf. Kim, *op. cit.* The Microsoft and Edge browsers only permit the use of PlayReady DRM. Google Chrome uses Google Widevine Modular DRM; Safari from Apple uses the DRM FairPlay Streaming; Mozilla and Firefox also use Widevine Modular DRM, the same as Chrome.

illegally. The means of forensic DRM are installations that are able to detect watermarks, track users, prevent a user using the service or take legal steps to put an end to the illegal distribution. In the next section, we will examine the main systems implementing these resources, which can also prevent practices such as “camcording” (the filming of a cinema screen and subsequent distribution of the recording, which involves the transfer from digital to analog and again from analog to digital) and the use of a PC screen recorder (capturing images on a computer screen in MOV and MP4 formats)⁹⁵.

5.1 FINGERPRINTS, WATERMARKS AND OTHER DIGITAL IDENTIFIERS IN AUDIOVISUAL WORKS

ISAN, EIDR and other unique identifiers do not in themselves constitute a content protection system, but when they are used in conjunction with content monitoring and detection systems the efficiency of the ecosystem improves considerably. Technological means enable identifiers to be used alongside fingerprints and watermarks, enabling networks to be scanned, the presence of audiovisual works on specific platforms to be detected and the rate of use of each audiovisual work to be verified.⁹⁶ Both techniques are complementary and can use the universal indicators developed thus far, with some used to enable enjoyment of the content and others to monitor illegal uses.⁹⁷ Below is a diagram of the combined operational workflow of metadata and DRM, as proposed by one of the existing providers.



Source: PallyCon Forensic Watermarking and Multi-DRM workflow, available at: <https://medium.com/pallycon/how-netflix-protects-contents-part-2-33c1b6002a3>.

In any case, they are part of the metadata embedded (incorporated) or linked to the audiovisual work, irrespective of whether they are descriptive, structural (such as an episode or season within a series), administrative, technical or preservation metadata.⁹⁸ The use of identifiers and metadata requires the use of standards for the creation, management and exchange of information, providing consistency and interoperability. These uniform standards indicate how and why some metadata can be captures, facilitating easy understanding of the metadata

⁹⁵ For more detail on forensic watermarking technologies, see the specifications for the North American industry in “Moviellabs Specification for Enhanced Content Protection Version 1.3”, available at: <https://movielabs.com/solutions-specifications/enhanced-content-protection-ecp/>.

⁹⁶ For information on the basic concepts of watermarks and fingerprints, cf. Milano, Dominic. “Content Control: Digital Watermarking and Fingerprinting, a White Paper”, available at: https://www.digimarc.com/docs/default-source/technology-resources/white-papers/rhozet_wp_fingerprinting_watermarking.pdf.

⁹⁷ Cf. Hsieh, Shang-Lin and others. “Combining Digital Watermarking and Fingerprinting Techniques to Identify Copyrights for Color Images.” *Scientific World Journal*, Hindawi Publishing Corporation (2014). Web. <http://dx.doi.org/10.1155/2014/454867>.

⁹⁸ Cf. AVPS-NEDCC Northeast Document Conservation Center, Fundamentals of AV Preservation Textbook, available at: <https://www.nedcc.org/fundamentals-of-av-preservation-textbook/chapter-4-introduction/chapter-4-section-5>.

created by others and reducing to a minimum the barriers to the exchange of information between systems.⁹⁹ The metadata can be stored in Excel spreadsheets, as XML files, or in databases, such as content management systems and institutional repositories, as well as in other formats. Whatever the form in which the metadata is stored, the use of standards for creating and structuring them will make it easier for them to be more widely understood and more interoperable.¹⁰⁰

As an example, for the detection of unauthorized uses, ISAN makes it possible for specific content concerned by the infringement to be identified automatically and unequivocally. This is done by means of the AACSLA content protection system for Blu-ray disks and other optical media (<https://aacsla.com/>), or directly by the owner of the content to identify their works protected with the YouTube Content ID or through the French Hadopi system.¹⁰¹ There are multiple ways of linking an ISAN to the work using audiovisual standards.¹⁰²

In the case of the EIDR, the metadata are not embedded directly but by means of the relevant ID, which is incorporated into the original master copy of the audiovisual work or of its different versions. This EIDR ID identifies the content, a specific version or edition and a sequence of images.¹⁰³

5.1.1 Use of watermarks in audiovisual works

Watermarks are used to monitor individual files, help to identify who created a given item of content and determine whether the content was obtained legally. A watermark is a small amount of data added to, and often hidden within, a digital file, that can also be only a unique identifier or number, be difficult to remove without damaging or distorting the image or be hard to find if its access or encryption is unknown. It may also consist of the same data repeated in numerous frames in the audiovisual file. Regardless of the form they take, they must be “invisible” to the consumer without having a negative impact on the quality of the content.

To ensure that the watermark systems are as robust as possible, the ISAN is not fixed directly to the content using hidden watermarking technologies. There is in fact a direct link between the quality of a hidden mark, its ability to withstand attacks, such as an intent to remove the mark, and the information contained in the watermark (identification or tag). All solutions providers have therefore developed and implemented their own tagging systems to ensure

⁹⁹ Cf. Polo Carrión, Juan Antonio and others. “Metadatos y audiovisual: iniciativas, esquemas y estándares.” *Documentación de las Ciencias de la Información* vol. 34 (2011): pp. 45-64. Web. http://dx.doi.org/10.5209/rev_DCIN.2011.v34.36445.

¹⁰⁰ Filmstandards.org proposed standard EN15744 as a minimum index of metadata that should be mandatory for audiovisual works in the European Union. Cf. http://filmstandards.org/fsc/index.php?title=EN_15744. Regarding the characterization of each of these metadata, it proposed standard EN15907. Cf. http://filmstandards.org/fsc/index.php?title=EN_15907. For an up-to-date and comprehensive guide to the standards for metadata in audiovisual works in the European Union, see EFG European Film Gateway Data Provider Handbook, available at: https://www.efgproject.eu/downloads/EFG_DataProviderHandbook_2020.pdf.

¹⁰¹ A recent report from the French Ministry of Culture analyzed the way in which digital tools can be used for the protection of intellectual property rights on audiovisual platforms. The “Mochon report” falls under Article 17 of the Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market. Cf. Jean-Philippe Mochon, Sylvain Humbert, Carla Menaldi, Didier Wang, Pauline Blassel and Laetitia Facon, “Towards more effectiveness of copyright law on online content sharing platforms: overview of content recognition tools and possible ways forward”, Ministry of Culture of France, available at: <https://www.culture.gouv.fr/content/download/262679/2991173>.

¹⁰² <https://support.isan.org/hc/en-us/articles/360025250652-ISAN-in-Audiovisual-Standards>.

¹⁰³ Regarding the technical requirements for introducing the EIDR ID into the master copy, see “Best Practices and Use Cases for EIDR Edits”, available at: https://eidr.org/documents/2016-05-12_Best_Practices_and_Use_Cases_for_EIDR_Edits_v24.pdf. The EIDR documents library for the application of standards is available at: <https://www.eidr.org/standards-and-interoperability/>.

interoperability with their own technology; some use short codes, while others use a time stamp, and so on.¹⁰⁴

The ISAN approach is therefore not to degrade the technologies of providers, but to link the ISAN codes to the provider's tag at the level of the watermarking system by means of encoders and decoders. When a watermark is encoded or decoded, the user sees an ISAN, which is assigned to the provider's tag on the back. Ultimately, the important elements are not the digital bits hidden within the content, i.e. the provider's tag, but how these digital bits, once they have been retrieved in content that has been infringed, can be linked unequivocally and automatically to specific content: the ISAN and its metadata. A number of watermark providers have implemented the ISAN in this manner.

The EIDR also allows the use of watermarks, such as, for example, the system developed between CIMM (Coalition for Innovative Media Measurement: <https://cimm-us.org/>) and KantarMedia. This involves OBID (Open Binding of Content Identifiers), which enables the EIDR ID to be encoded in an audio track, which is then superimposed on the file code.¹⁰⁵ An advanced version is the TAXI (Trackable Asset Cross-Platform Identification) system, which allows the watermark to be retained across multiple platforms at the same time.¹⁰⁶ While it was originally used to identify advertising during broadcasts for advertisers and agencies, any audiovisual content can be identified and detected using these watermarks.

5.1.2 Use of digital fingerprints in audiovisual works

Digital fingerprints do not embed any information in the file, but rather analyze the video and/or audio to determine the unique features of the content. The pattern identified is stored in a database and can be used to identify the content in the future. For a fingerprinting system to be effective, this must be associated with a database that links the fingerprint to the content when the system identifies the same content on other occasions. In the case of audiovisual works, these systems would require an immense data handling capability, so only a representative sample of frames or of signs incorporated in the broadcast of a TV program, such as the logo of the channel, are usually stored. This sample is normally referred to as the DNA or genetic code of the audiovisual work. The systems enables the work and the different versions of it to be identified, thereby allowing royalties to be allocated accurately.

The ISAN is generally attached to the digital fingerprint in the digital fingerprint database. This makes it possible to identify unequivocally and automatically the content detected by the digital fingerprinting system and provide reports with ISAN references that can be processed by other applications. ISAN, ISRC and ISWC, for example, are used by the BMAT digital fingerprinting system (<https://www.bmat.com>) to supply usage reports that can be processed electronically by CMOs. The same is done by Kantar Media for audience and advertising measurements.¹⁰⁷

Signature provides a digital fingerprinting solution specifically for the audiovisual industry: <https://institut.ina.fr/en/services/image-sound-software/signature>.

¹⁰⁴ As an example, there is the experience of the Streaming Video Alliance, a joint initiative between various operators in the TV ecosystem that uses watermarking mechanisms for live content, known as ContentArmour. Cf. <https://www.streamingvideoalliance.org/document/forensic-watermarking-implementation-considerations-for-streaming-media/>.

¹⁰⁵ Cf. Mears, Paul and de Keratem, Tristan. "Open Watermarking of EIDR Identifiers", available at: http://cimm-us.org/wp-content/uploads/2013/04/Open-Watermarking-of-EIDR-Identifiers_January-2018.pdf.

¹⁰⁶ Broussard, Gerard. "The Media Industry's "UPC Code" for Tracking Video Across Platforms", available at: https://cimm.wpengine.com/wp-content/uploads/2013/04/TAXI-Complete-Whitepaper_July-2018.pdf.

¹⁰⁷ <https://www.kantarmedia.com/us/our-products/audience-intelligence/content-detection-technologies>.

5.2 BLOCKCHAIN TECHNOLOGIES IN THE MANAGEMENT OF AUDIOVISUAL WORKS

Blockchain technologies can be used to register copyright-protected works. While it is an option available to intellectual property offices and other actors in the ecosystem, its use remains relatively limited. In its current form, its use is largely related with proof of creation, ownership and content, but the metadata created for registration can be embedded in the various versions of the audiovisual work to enable them to be monitored more accurately and to determine rights and remuneration.¹⁰⁸ This is because registration using blockchain can be associated with so-called “smart contracts”, which facilitate the conditions of use of works. In addition, the encryption of the information inherent in the system makes the information loop highly reliable and traceable.¹⁰⁹

One of the advantages that the use of blockchain can bring to Content ID systems is that the rights holder can determine unequivocally and in advance which uses and remunerations they generally permit for their works, incorporating a link to a smart contract, without being dependent on the policy of any specific provider or platform. The cryptographic seal is stronger than watermarks and fingerprints.¹¹⁰ This would facilitate both distribution and automatic payments.¹¹¹ On the other hand, the data blocks introduced as metadata in audiovisual works must also be considered part of the information protected under DRM. This is why its use in rights management is a logical consequence of the system.¹¹²

While the use of cryptography and blockchain to manage large repertoires is still not a widespread reality, it is important to take into account that its implementation will require going through the stages of consistently identifying the audiovisual work, its owners and the related rights. Technical and interoperability problems must be resolved during the transition from theoretical possibilities to a general practice.¹¹³

¹⁰⁸ For a general overview of the operation of blockchain in relation to intellectual property, see: Rose, Anne. “Blockchain: Transforming the registration of IP rights and strengthening the protection of unregistered IP rights.” WIPO Magazine, June 2020. Web. https://www.wipo.int/wipo_magazine_digital/en/2020/article_0002.html. For a more detailed explanation of the blockchain structure, cf. Shackelford, Scott J. and Myers, Steven. “Block-by-Block: Leveraging the Power of Blockchain Technology to Build Trust and Promote Cyber Peace.” *Yale Journal of Law and Technology* (2017). Web. <http://dx.doi.org/10.2139/ssrn.2874090>.

¹⁰⁹ Clark, Birgit and Burstall, Ruth. “Crypto-Pie in the Sky? How Blockchain Technology is Impacting Intellectual Property Law.” *Stanford Journal of Blockchain Law & Policy* vol. 2.2 (2019). Web. <https://stanford-jblp.pubpub.org/pub/blockchain-and-ip-law/release/1>.

¹¹⁰ Savelyev, Alexander. “Copyright in the Blockchain Era: Promises and Challenges.” Basic Research Program Working Papers, Series: Law. WP BRP 77/LAW/2017, National Research University Higher School of Economics (HSE), Moscow (2017). Web. <https://wp.hse.ru/data/2017/11/21/1160790875/77LAW2017.pdf>

¹¹¹ This is provided for in, for example, United States patent No. 2018/0285996 for A1 methods and system for managing intellectual property using a blockchain, owned by FutureLab Consulting Inc. “A system and methods for managing intellectual property using a blockchain are provided which may include one or more elements which forms a comprehensive foundation for an eco-system for innovation and intellectual property management. The elements may include: an intellectual property distributed ledger, an intellectual property digital policy server, non-binary trust models, automatic ontology induction, modifications to the blockchain “mining” and “proof of work” system, appstore for related applications, partial transparency transactionalized search engine, persistent and encapsulated software trust objects, licensing royalty smart contract with auditable payment tracking, micro-equity incentives, automated fraud detection intellectual property management dashboards, innovation workflow broker, innovation optimization tools, disruption mapping, and intelligent just-in-time learning. The system combines and integrates these functions to enable personal, intra-enterprise, inter-enterprise and extra-enterprise recordation, collaboration, searchability and its benefits, licensing and tracking of information regarding intellectual property over a networked distributed computing system”. Cf. also patent application No. 20200374106 16/667847 of the United States Patent and Trademark Office, entitled: “SYSTEM OR METHOD ON IMPLEMENT RECORD LEVEL ACCESS ON METADATA DRIVEN BLOCKCHAIN USING SHARED SECRETS AND CONSENSUS ON READ”.

¹¹² Tresise, Annabel and others. “What Blockchain Can and Can't Do for Copyright.” *Australian Intellectual Property Journal* 28.144 (2018). Web. <https://ssrn.com/abstract=3227381>.

¹¹³ Gürkaynak, Gönenç and others. “Intellectual property law and practice in the blockchain realm.” *Computer Law & Security Review* 34.4, (2018): pp. 847-862. Web. <https://doi.org/10.1016/j.clsr.2018.05.027>.

6 EXPERIENCES ON THE USE OF INFORMATION

6.1 ARTIFICIAL INTELLIGENCE IN IDENTIFYING AND MANAGING AUDIOVISUAL WORKS

As we have already seen, managing the information of audiovisual works requires systems to have significant processing capacities and interoperability, in addition to suitable organization and uploading of data included in documentation. This is why there is an increasing use of big data, data mining, machine learning and deep learning tools, all of which are resources emerging from artificial intelligence (AI). Of these technologies, it is probably machine learning that is most required to automate processes.¹¹⁴ It uses algorithms and statistical models to enable systems to learn and improve from trial and error, simulating the human mode of using experience data. Through machine learning, the computer system can carry out categorization tasks using images, text or sound. The models are trained using a large, multi-layered dataset and neural network architectures.¹¹⁵ The systems are based on rules that use information databases and rules together to automate inference processes.¹¹⁶

Beyond optimization, AI offers a wide range of functions related to the content of platforms. These functions are aggregation, extraction, tagging, monitoring and control of content. The key here lies in authorizing a machine to complement human decisions and behaviors, thereby making the content management process more effective and efficient. The use of AI in content management seems to be an important and timely application on the part of media companies. An industry survey found that 47 per cent of those questioned use AI to create, generate and add metadata tags to extracts automatically to simplify content searches and speed up extract retrieval. This is particularly important for those with large content catalogues.¹¹⁷

The possibilities are enormous. The syntax of programming language use universal identifiers, such as ISAN, ISWC and ISRC, as an integral part of the process. The features of these numbers and codes actually share some of the characteristics needed to strengthen the ability of digital fingerprints to prevent circumvention of DRM¹¹⁸ As an example, the authorization mechanisms for use of TVOD platforms use neural networks to provide access to the content selected by the user.¹¹⁹ There are a number of technologies that apply AI to manage repertoires, detect infringements, remunerate rights holders and remove content. Some of these technologies are patent-protected.¹²⁰

¹¹⁴ An example is the URights initiative, between SACEM and IBM, to apply Watson machine learning technology to the identification of musical works, including on VOD platforms. Cf. <http://www.urights.net/>.

¹¹⁵ For example, machine learning can resolve conflicts relating to duplication concerning the title of the work or in the subtitling. Cf. Rice, Caitlin A. and others. "A comparison of homonym meaning frequency estimates derived from movie and television subtitles, free association, and explicit ratings." *Behavior Research Methods* 51.1399 (2019). Web. <https://doi.org/10.3758/s13428-018-1107-7>.

¹¹⁶ Chan-Olmsted, Sylvia M. "A Review of Artificial Intelligence Adoptions in the Media Industry." *International Journal on Media Management* (2019). Web. <https://doi.org/10.1080/14241277.2019.1695619>.

¹¹⁷ *Idem*.

¹¹⁸ Cf. Chen, Huili and others. "DeepMarks: A Digital Fingerprinting Framework for Deep Neural Networks", Proceedings of the 2019 on International Conference on Multimedia Retrieval, June 2019, available at: <https://doi.org/10.1145/3323873.3325042>.

¹¹⁹ Cf. García, Roberto and others. "A web ontologies framework for digital rights management." *Artificial Intelligence and Law* 15.2 (2007). Web. <https://doi.org/10.1007/s10506-007-9032-6>

¹²⁰ Two specific examples of this are: United States patent No. 2018/0247380 A1, referring to managing copyrights of content for sharing on a social networking system, owned by Facebook, Inc.; and United States patent No. 7,779,058 B2, referring to method and apparatus for managing a digital inventory of multimedia files stored across a dynamic distributed network, owned by Ronald Raymond Shea.

OTT platforms, and the media and telecommunications industry more generally, use AI in relation to the following: recommendations and assistance in content searches; audience participation and preferences; audience behavior; enhanced experience; improvements in handling messages; content management and administration; content creation; public information; and operational automation. In our case, content management and administration is of particular interest. One use of AI and machine learning, in particular, is its application to databases of standard numbers. ISAN, for example, uses it to avoid the deduplication of audiovisual works when registering ISAN codes, to map any audiovisual database structure with the ISAN Registry database structure or to match external databases with the ISAN Registry to disseminate existing ISAN codes.

6.2 CONTENT ID

The term Content ID refers to very different mechanisms that enable platforms and other actors in the ecosystem to use digital fingerprints and watermarks to detect and manage information on the works viewed by users.

6.2.1 YouTube and monetization agreements

YouTube has an OTT platform with AVOD and TVOD services. In the AVOD version, which was the initial version and is the most used, YouTube has an established practice with its partners that uses personalized identifiers that indicate a unique value to allow content hosted on the platform to be managed.¹²¹ They may be identifiers created specifically for each item of content or one of the standard identifiers we have discussed above, such as the EIDR or ISAN. YouTube recommends using a unique identifier for content for availability and transfer as it improves monitoring and the creation of reports. The personalized identifier can be created by the owner or, if not, created automatically when the content is uploaded to the platform. Each item of content can also be identified separately by season and by episode, which is taken into account in reporting.

Content files are uploaded by the owners to YouTube servers, together with identifiers and management instructions, either to host them for the sole purpose of creating a digital fingerprint or to choose to make them public. The fingerprint allows the content to be monitored to avoid piracy or establish monetization mechanisms, in accordance with the owner's instructions, that can consist of deregistration, monetization, geolocation (restriction by territory) or limiting viewing time. The system compares the images and sound of all items of content, detects images in similar content uploaded by other users and applies the instructions received from the rights holder.

To configure the personalized identifier, basic information is introduced when the content is uploaded: title, description, thumbnails seen by the user, playlist, intended audience, user age restrictions and whether it is content created for children. Any paid promotion included in the video must also be indicated, where relevant. The rights holder can add tags consisting of key descriptive words to correct search errors and guide consumer preferences. Information on the original language, any versions and whether it contains subtitles is also detailed, as well as the location and date of production or recording. It is also possible to introduce information on licenses and distribution, in addition to whether it involves a standard copyright license or is under Creative Commons. The holder can also decide whether the video can be embedded on other websites. Other relevant information is the genre or category; for example, whether it is educational or comedic. Among other options, the holder can decide whether or not to allow comments or whether or not the number of people who have clicked on "I like this" and "I dislike this" is visible.

¹²¹ Cf. <https://support.google.com/moviestvpartners/answer/3059023?hl=es-419>

Partners using the matching systems can authorize the recognition option to process claims when the content uploaded by other users partially matches the reference file uploaded by the rights holder. Claims are generated automatically. The other option is to decide to monetize this content when user choose and view it, with YouTube sharing the advertising revenue, receiving 45 per cent compared to the holder's 55 per cent.¹²² This distribution only applies to content that has been viewed and that is sponsored by advertising spots. The latter option is available to Latin American producers through EGEDA.

The monetization system using Content ID is also used by broadcasting organizations by making available recordings of programs previously broadcast on their channels, irrespective of whether or not they are audiovisual works. YouTube allows visual elements to be added to the end of the video (end screen), as well as the addition of interactive content to the video (cards), with the aim of offering consumers other content or recording live events or premieres. The consumer can also save their preferences to receive personalized suggestions.

YouTube has Analytics (<https://studio.youtube.com/>), a reporting service that shows the most relevant data on playback of the partner's content. It shows the main metrics linked to the traffic of the partner's own site, such as the playback time (in hours), views, subscribers and revenue. If a user is part of the YouTube Partner Program, they can view the income from the previous month or a longer period, disaggregated by video, with the sources of income for the selected period.

The following is an example of the reporting provided by YouTube:

Field	Description	Example
video_id	The Unique and persistent identifier of the video as allocated by YouTube.	WvyGIGi058
video.title	The title of the video as provided by the uploader.	"Amazing vacations in SFO"
work title	Asset title for the Movie, Show Episode, Web asset...	Aliens
asset_type	Defines the asset type claimed in the video	Web, TV, Episode...
asset_id	Asset ID(s) of assets claiming the video	ELz1LTZJO3U
Year of Production	Year of production of the movie or Series, as provided by the Studio	2012
ISAN	International Standard A/V Number	00000000A97B000000000000
EIDR	EIDR Number	10.5240/0000-2345-5432-7858-6543-C
views	Total views for the video over the reporting Month for the reporting Territory	500000
gross_revenue	Total gross revenue for the video in the reporting month and territory	1000.00

¹²² As at October 2020, 440 Latin American producers, with 12,000 audiovisual works, had acceded to this agreement. Cf. https://www.egeda.com.ar/EW_Pirateria.asp.

6.2.2 Signature

Signature is software developed and offered by the INA (French National Audiovisual Institute – Institut National de l’Audiovisuel) to be used as a digital fingerprint in identifying video sequences.¹²³ Initially, this was a development for the content distribution platform MEDIAPRO, but the service is currently available to third parties worldwide via SaaS (Software as a Service). Signature makes it possible to identify content protected by intellectual property, ensure compliance with the conditions of use of the content and develop monetization strategies for its exploitation. Both ISAN and EIDR are used to identify audiovisual works.

Signature can be used to identify and monitor live broadcasts, such as sporting events or concerts, as it compares digital fingerprints automatically in under a minute and without human intervention. INA currently supervises around 100 TV channels automatically in real time to identify copies of files that have been distributed. Its main users include DailyMotion, which is widely used in Latin America (<https://www.dailymotion.com/>). It also collaborates with CMOs to distribute royalties.

Its specifications make it possible to determine when and how each item of content can be used, as well as during which period, in which territories and how the revenue generated is distributed. In addition, rights holder have the option of keeping their content actively registered in INA databases to be able to link it to anti-piracy services.

Signature can also be used by audiovisual service platforms to identify content, insofar as the INA database is used, based on a minimum number of hours of content. The same digital fingerprint can be used by providers of network monitoring services when copies are detected, including when significant changes have been made to the files, text and graphic have been superimposed on the images, changes to color or black and white have been made, compression technologies have been used or format changes have occurred. The central INA database is also used for this service and is available for online monitoring services only. It may also operate in association with third parties, such as OpSec (<https://www.opsecsecurity.com/>) and TMG (<https://www.tmg.eu/>), to tag content and carry out network monitoring.¹²⁴

6.3 AUDIENCE MEASUREMENT

Another very important use of information on audiovisual works and the related metadata lies in the possibility of measuring audiences and consumer preferences. The following section addresses some of these uses.

6.3.1 COMSCORE

COMSCORE (<https://www.comscore.com/>) is a global company headquartered in the United State of America with a significant presence in Latin America, and specializing in measuring audiences of all forms of TV, OTT platforms and cinemas. For cinema exhibition, it measures 95 per cent of box office returns and public attendance worldwide. It provides services to audiovisual production houses and distributors. It also reports on invoicing and cash flow reconciliation.

In the case of audiovisual works on VOD platforms, it is used for both online consumption via devices and for mobile use. It uses a hybrid method to measure platform audiences. Firstly,

¹²³ Cf. <https://institut.ina.fr/en/services/image-sound-software/signature>.

¹²⁴ TMG, for example, uses Internet Copyright Enforcement associated with Signature to implement anti-piracy policies, including the removal of content. Cf. <https://www.tmg.eu/services.html#ice>

it takes a direct sample of volunteer users who have audiometers installed on their devices. This involves software that records visits to web pages, and is complemented by information from DAX (Digital Analytix), an analytical tool. This hybrid methodology is known as Unified Digital Measurement (UDM), which records all visitors to a website and helps to understand the size and make-up of the audience.

Another of the services provided by COMSCORE is Video Metrix®, a COMSCORE Multi-Platform that offers a complete overview of a consumer's digital video consumption on computers, phones, tablets and OTT devices. This service provides disaggregated video audience measurements across digital content and advertising, providing details on the size of the audience, and its scope, loyalty and demographic composition. These characteristics are among those analyzed for YouTube channels.

In terms of other VOD platforms, COMSCORE is making progress in tagging pages. In some cases, they analyze traffic, and in others they show a dashboard with user interaction and playback time for content. The dashboards are formed of users that allow their information to be shared when applications interact with MyMetrics, a software used for collection, analysis and browsing reports.

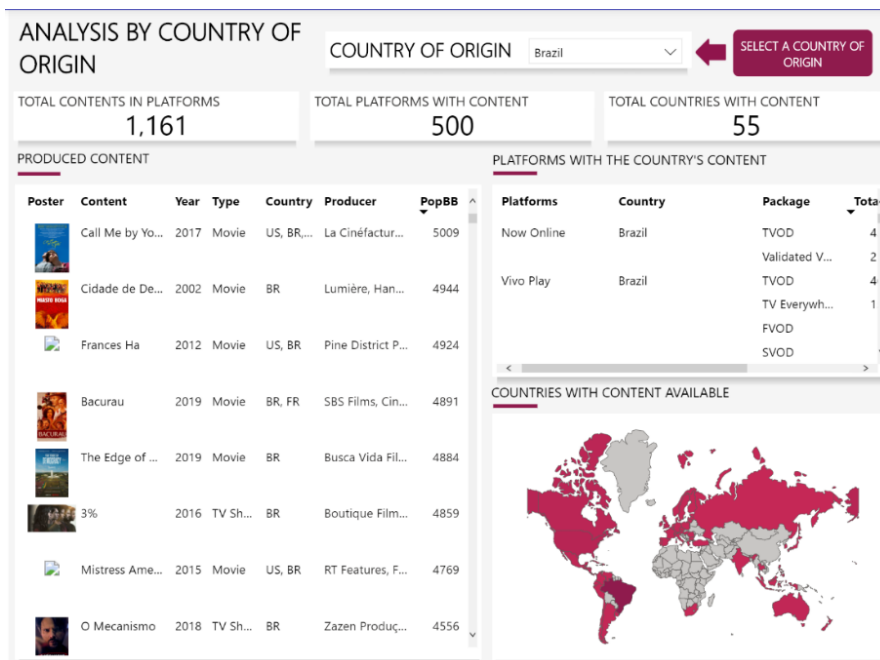
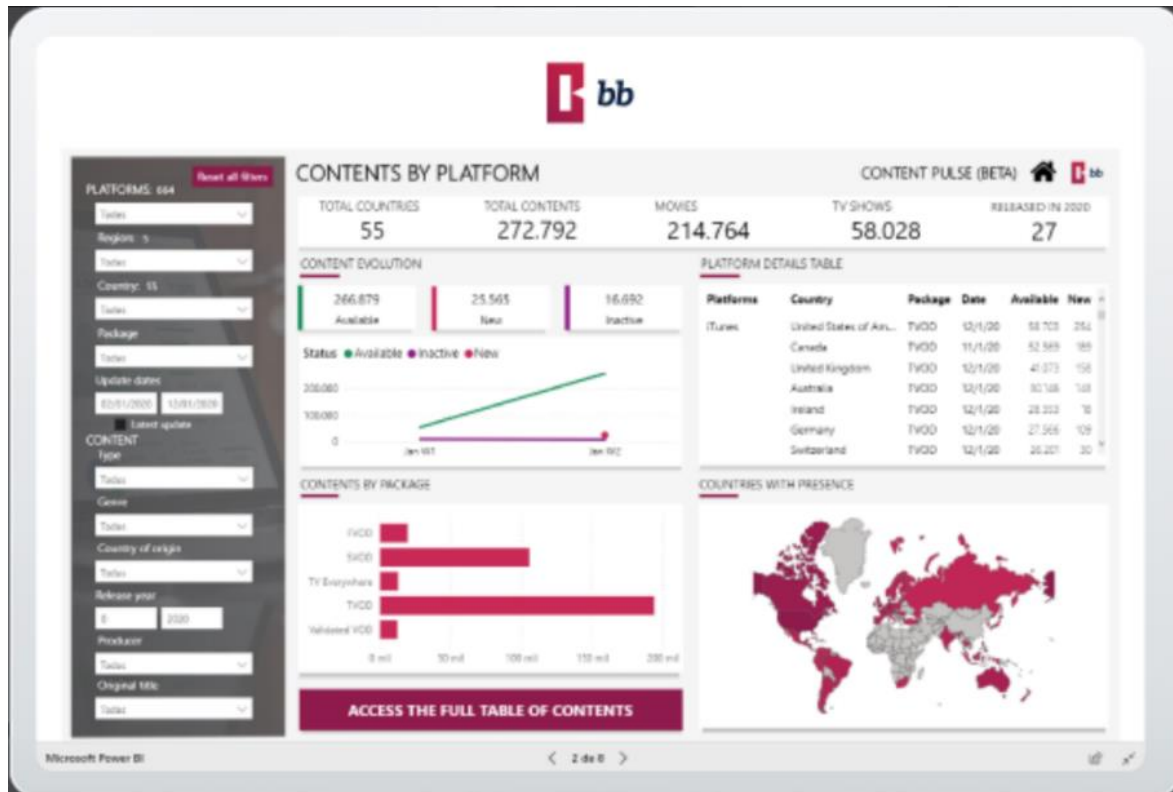
6.3.2 Content Pulse

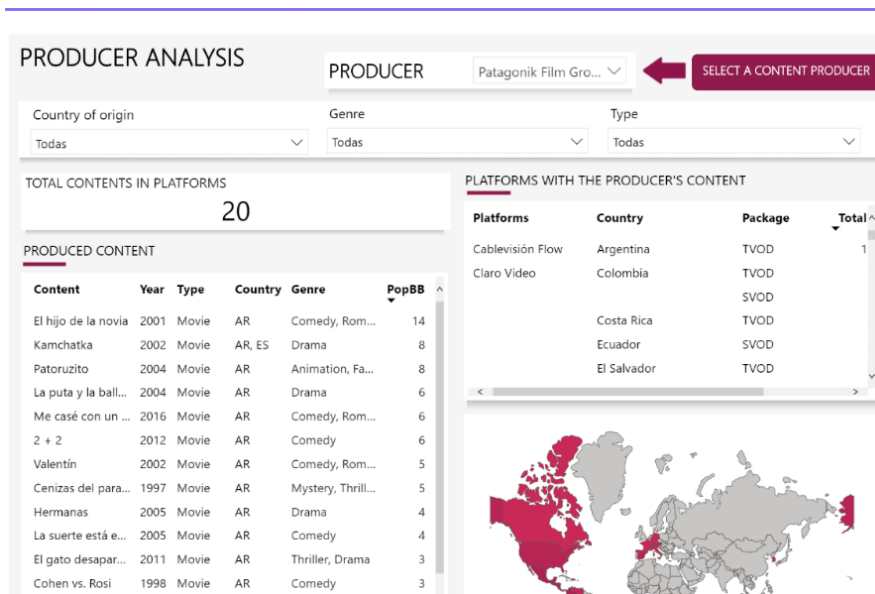
Content Pulse (<https://bb.vision/content-pulse/>) is an initiative of Business Bureau that is used to monitoring digital platforms to measure audiences and the availability of content on OTT platforms. As at October 2020, the monitoring database included 1,168 platforms in 61 countries, which make available 309,458 films and 2,673,386 episodes of TV programs. For the countries in this study, there is active monitoring of 214 platforms with audiovisual content. According to the information in the database in August 2020, there were 52,890 films and 11,051 series from the countries in this study on the main VOD platforms.

The reports are weekly and also include analysis relating to content and popularity, but not user numbers. For CMOs, this tool is useful for identifying members featured in the works disseminated online, and in which countries and on which platforms this occurs. This also makes it possible to see the reach of local content, and if any organization has agreements with associations in other countries, it can monitor revenue collection and compliance with reciprocity.

The works identified in the reports include the EIDR and, in some cases, the ISAN. Each new work detected is uploaded to the database and can form part of future reports.

The user interface is very versatile and provides various kinds of analysis, some of which can be seen below:





6.4 REPORTS FOR PAYMENT OF ROYALTIES

6.4.1 BMAT

BMAT (<https://www.bmat.com/es/>) is a company with a global reach focusing on monitoring music on TV, radio and digital services and in clubs. Its reports, as well as providing audience information, includes metadata that enables royalties collected for public communication to be distributed accurately; these reports are intended for CMOs, publishers, advertising agencies, digital platforms, entertainment companies, the media, aggregators and public organizations. For audiovisual works, monitoring is mainly carried out on broadcasters, on the basis of more than 72 million acoustic digital fingerprints for commercial and commissioned music and music production, with the direct collaboration of more than 120,000 content owners (as at October 2020). This includes more than 95 per cent of ISRC registrations and more than 80 per cent of ISWC registrations.

BMAT has its own service for identifying and monitoring music, Vericast (<https://vericast.bmat.me/>), which clients can access online using an API. The system is interoperable and allows custom personalizations to be made. In the countries in this study, it reports to all associations of authors, performers and phonogram producers. The reports identify the music used but not how it is used, i.e. whether it is an opening theme, incidental music, a leitmotif or a closing theme. This is why the reports must be complemented by the information provided by producers in cue sheets. In practice, if there are no cue sheets, the authors' CMOs consider the music to be unidentified. When the audiovisual producer or the broadcasting organization holds the rights to the music or acts as the publisher of the synchronized music, the BMAT reports provide them with information on the royalties they may be entitled to for the public communication of such music.

In countries where phonogram producers and performers have rights over the public communication of a phonogram synchronized to the audiovisual work, the BMAT reports identify the phonogram with the relevant ISRC. This report is used for distributing the royalties collected, both domestically and abroad, in order to facilitate reciprocity.

BMAT digital fingerprints also allow an integrated service to be provided to the distribution and consumption chain of platforms to identify music and correct errors in metadata or incorrect ownership information. This service is also available for use in relation to user-generated content (UGC).

BMAT has a specific service for audiovisual producers known as CUED, which allows cue sheets to be generated automatically. It is a platform where audiovisual content is uploaded and the music incorporated is then recognized, as well as the duration of each track. Once it has been identified, data on the song is imported, including ISWC, ISRC and IPI numbers, with the information associated with each code. In contrast, if the cue sheet is in a plain format, the metadata that can be extracted from it can then enable digital fingerprints to be retrieved and monitoring of the music identified to be automated. This facilitates exchanges of information between audiovisual producers, music publishers and CMOs.

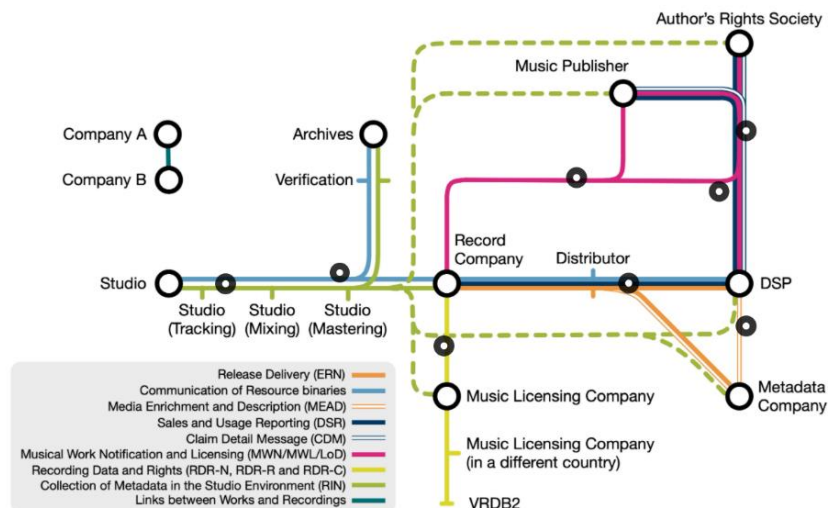
6.4.2 DDEX

Digital Data Exchange (DDEX: <https://ddex.net/>), in its own words, is a non-profit organization aiming “to develop standards relating to metadata creation and management, identification of entities and the communication of such information in relation to media rights, agreements and content to enable a highly automated, timely and cost-effective transaction processing environment providing the highest possible level of operational efficiency amongst participants in the physical and digital media value chain...and to promote, through the creation of publicity material, the holding of training seminars and the like, global awareness and compliant implementation of those standards”.¹²⁵

DDEX began in the music industry, promoting the standardization of information and reports. Its Board is made up of major media companies, music licensing organizations, rights holders, CMOs, digital service providers and technical intermediaries, such as aggregators; in other words, all of the participants in the value chain. At present, more than 4,000 organizations use DDEX as standard. It is implemented by means of business partners, prior acceptance of the license and recognition of the allocation of an identifier as an associated party (DDEX Party Identifier “DPID”). The software and all resulting documentation is regulated by open source criteria.

At present, DDEX has eight different standards, depending on the role and function of the organization within the value chain. A general outline of the flow of information and guidance on which standard is the most suitable for each organization can be seen below:

¹²⁵ Cf. <https://ddex.net/>.



Source: <https://ddex.net/standards/>.

DDEX uses the ISRC, ISWC, ISAN, EIDR and ISMN universal identifiers, among others. It works with EIDR to facilitate the identification of music in audiovisual works using a “common language” in connections between visual media and sound recordings, and thereby increase the efficiency of the supply chain. This enables value-added services to be provided to the film and TV industries, standardizing universal identification and monitoring practices, and ensuring that metadata on the music in audiovisual works and TV programs are strong enough for the various commercial interactions between the two industries.¹²⁶

Among the reports provided by DDEX is an analysis of the reports of VOD platforms by the music included. SACEM, the French authors’ association, is one of the users of these reports.

7 CONCLUSIONS AND POSSIBLE IMPROVEMENT INITIATIVES

Following analysis of the process of identifying audiovisual works and the use of metadata, it is possible to highlight some general points about the situation and emphasize some initiatives and good practices for improving the performance of producers and other rights holders, whether to facilitate monetization with lower operating costs or to prevent and combat piracy.

In the countries in this Project, there is no regulation that establishes international standards or identifiers for audiovisual works, as a result of which their use is strictly voluntary.

In the music industry, a more extensive use of universal identifiers is recommended, which has an impact on the identification of musical works, performances and synchronized phonograms in the audiovisual work.

The use of databases and standards is better structured for cinema exhibition and transmissions by broadcasting organizations because they are established markets and, in many international cases, have adopted criteria for more developed economies. The existence and operations of regulatory and promotional bodies contributes to standardizing practices. When a number or code is required in some countries to identify the audiovisual work for administrative purposes, they are always internal numbers that are not intended for wider use. Cinema promotion authorities and bodies should incorporate this practice into their processes

¹²⁶ Cf. DDEX. “DDEX Teams with EIDR to Streamline Metadata Standards.” *ddex.net*. DDEX, May 6, 2019. Web. <https://ddex.net/ddex-teams-with-eidr-to-streamline-metadata-standards/>.

and records, stop generating their own “data islands” and promote incentives to strengthen a shared information base for the local, regional and global industry.

On the other hand, the absence of asymmetry in the regulations and obligations applied to traditional channels and OTT platforms undermines local platforms and audiovisual producers that use new distribution channels.

The title of the work is not a very effective way of identifying an audiovisual work because it does not permit the use of automated systems based on algorithms and AI technologies.



One of the main problems affecting the digital market is uncertainty around the chain of title.

DRM, for its part, requires homogenous metadata to be effective.

required as an administrative prerequisite for promotion and funding systems in some of the countries. Such registrations do not usually include the universal identifier of the registered audiovisual work.

In the countries in this Project, copyright registration is not mandatory, except when

According to some of the players in the market, one of the main problems affecting the digital market is uncertainty around the chain of title. The aim of including a work in the catalogue of an OTT platform available in the most countries possible, or at least throughout a region such as Latin America, come with a lack of legal certainty around the licenses that support the availability of the content. The information base should therefore be useful in building a global repository/archive of chains of title, or at least a regional base or one relating to digital exploitation.

The practice is different for audiovisual producers. There is a greater use of universal identifiers and metadata among the major international production companies operating in the region, and even among local productions aiming towards international distribution. The registration of audiovisual works in databases by audiovisual producers, either by themselves or through agencies or aggregators, should be recommended and promoted. It should also be a normal practice for metadata to be embedded in master copies of audiovisual works during post-production, prior to distribution of the audiovisual work through any of its windows. As a result, the metadata and information embedded in the master file is not consistent. If the data from a cue sheet is missing, for example, it is not possible to establish links with digital audio platforms such as Spotify to disseminate and exploit the soundtrack.

In the international databases (IMDb, TVDB and others), it should be noted that many local productions are not included or the data is insufficient. Local producers do not appear to be in the habit of using these databases as means of promoting their productions.

While uploading universal identifiers and metadata is a time-consuming process for smaller producers, it is necessary condition of their profession. It is also an essential requirement in global digital markets.

International platforms that make available or publicly communicate works have their own processes for identifying works throughout their operations. However, these processes are internal and rarely shared with partners.

Only some of the CMOs in the countries in this study make extensive use of universal identifiers for audiovisual works. It is not required at the time of registration in a repertoire. Some of these CMOs, on behalf of their members or representatives, request such numbers or modify the databases corresponding to these codes.

Audience reporting agencies or agencies verifying the legality of use of content normally use universal identifiers, standardized metadata, watermarks or digital fingerprints. Agreements between these agencies or providers and other actors in the ecosystem should be used to extend good practices.

A particular problem that deserves attention is the scope of confidentiality in agreements between producers, platforms, distributors and aggregators. The dissemination of data on cinema box office returns or ratings of programs on broadcast channels have different considerations than those that appear to be given to the use of content on platforms. Without affecting the privacy of the end users, it would appear that greater dissemination of the rate of use of works in each digital distribution channel is possible.

The recommended practice should be the following:

RECOMMENDATIONS

- 1) The producer should apply for the ISAN universal identifier or the EIDR, or use the dual procedure during finalization of post-production.
- 2) The universal identifier should be self-sufficient, incorporating the ISWC for original music, the ISRC for pre-existing music, and the IPD for actors and musicians, among the main data to be recorded.
- 3) Universal identifiers can be used widely and at the following times:
 - a) During registration of the audiovisual work at the national level.
 - b) In the masters used to distribute the audiovisual work through a QR code or ID.
 - c) In all distribution contracts and all documentation referring to the audiovisual work.
 - d) In proceedings with public authorities, whether relating to promotion, funding, box office measurements, taxation or anything else.
 - e) In cue sheets managed by local CMOs, with the cue sheet in turn referring to the ISAN or EIDR.
 - f) Registration of the audiovisual work with CMOs, whether in relation to producers' or exclusive rights or the remuneration of participants, should include the universal identifier.
 - g) In reports on royalty distribution produced by CMOs for their members and foreign CMOs.
 - h) In reports on cinema box office reports, as well as on broadcasting organizations.
 - i) In reports on all types of VOD platforms.
 - j) In reports from audience measurement agencies.
- 4) There should be consideration of the creation of a unified repository of information on audiovisual works, such as the chain of title, in particular for online exploitation rights.
- 5) This repository should be implemented using blockchain technologies that would enable interoperability between different actors and subsystems.