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# Intellectual Property Rights in the Global Creative Economy

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# Contents

# Message from the World Economic Forum's Global Agenda Council on the Intellectual Property System

Intellectual property (IP) is about promoting progress and innovation. The global IP system should be seen as a tool to regulate and facilitate trade, information and knowledge in innovative and creative goods and services.

While IP may seem like a foreign concept to many, the fruits of it are everywhere; consider mobile phones, cars, music, medicine and products bought in a supermarket. The knowledge and human creativity embodied by the IP in these products make the modern world possible.

IP rights do not simply benefit creators but, rather, society as a whole. In today's interconnected knowledge-centric society, the economic stakes of an appropriate IP framework are high. IP enables greater investment in products and services to improve society, including life-saving vaccines and medicines, and high-yield, drought-resistant crops that increase the world's food supply. By leveraging the IP system for social and economic growth, society will benefit from a wider base of knowledge, increased investment in research and development, broader support of creative arts, greater access to open markets and better consumer protection.

Given the challenges facing the global economy, the IP system is more important than ever in providing the framework to foster new products and cultivate new inventions that are instrumental in creating the next generation of jobs, investments and growth.

In this context, the World Economic Forum's Global Agenda Council on the Intellectual Property System seeks to raise awareness of the importance of IP in trade facilitation, innovation and entrepreneurship. It also strives to develop its vision; make progress on IP as it relates to online creative content; and increase access to IP and its benefits while promoting transparency in the system.

Over the past year, the Council has taken a careful look at how technology trends and a globalized economy are reshaping the way we create, distribute and access content. The results of that study, presented here, are intended to help everyone with an interest in the IP system – including policy-makers, content creators and consumers – build a thriving 21st century creative content ecosystem.

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# Introduction

Much of the world's intellectual property (IP) is embodied in music, movies, videos, books, articles, illustrations and other creative content. Thanks to the on-going revolution in digital devices and services, that content is being created, moved and consumed in increasingly complex ways.

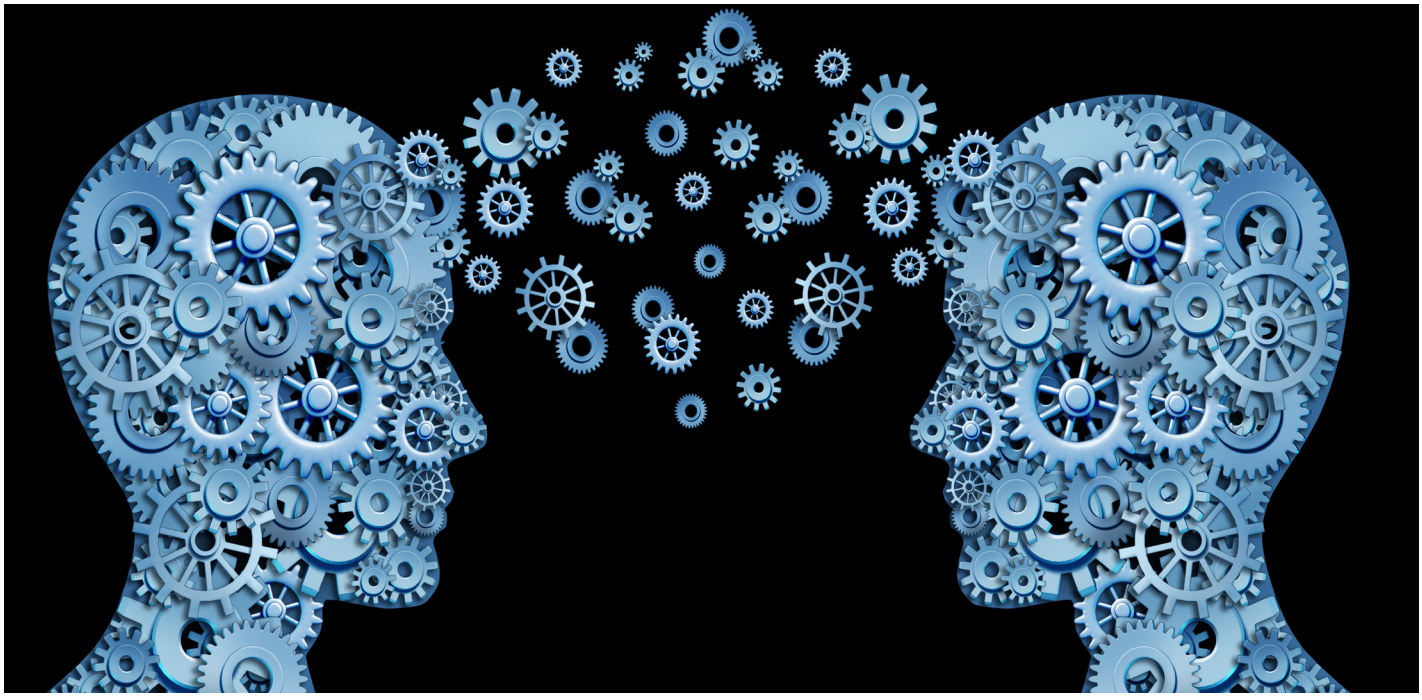
This creates challenges – and opportunities – for the global intellectual property system arising from multiple trends. Distribution models are shifting towards instantaneous, ubiquitous access, sometimes using social networks, and increasing the reach of content creators. New technologies are allowing content creators to engage directly with their audiences in innovative ways and enabling new mechanisms for collaborative content generation. Business models are shifting as well, with licenses for content access often replacing ownership of copies of content. In addition, increased cross-border movement of content is raising jurisdictional challenges, including potential incompatibilities between national legal systems.

The need to continue updating IP systems generally and copyright frameworks specifically to adapt to the digital era has been widely recognized for several decades at the national and regional level. However, in a world where content creation and consumption have become truly global, it is also important to consider the associated IP issues in a global context.

To contribute to the goal of an improved global IP system, it is important to consider the forces shaping IP generation. The first section of this paper contains a set of key "megatrends" that are shaping the global creative economy. It is followed by descriptions of how IP has been handled in a set of selected creative content areas. The selection of areas covered is not meant to be exhaustive; it is intended to help convey the diversity of approaches that have been used. As the descriptions of these content "verticals" clearly convey, a one-size-fits-all approach to addressing intellectual property would be inappropriate in light of the many types of creative content.

The paper concludes with a set of recommendations and a list of digital copyright principles. They are intended to help policy-makers ensure that the world's IP systems keep pace with the changes in how content is created, distributed and consumed. They aim to assist everyone involved in IP – including policy-makers, companies, consumers and individual content creators – in maximizing the benefits that IP can provide.

More generally, approaches to managing and protecting IP rights in the global creative economy should recognize the central role that creative content plays in expressing the thoughts, stories and aspirations of people in every country of the world. Protecting and enhancing that role is a key ingredient to achieving long-term global economic prosperity.



# Megatrends Driving the 21st Century Creative Economy

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[1] Hajkowicz, Stefan, Hannah Cook and Anna Littleboy, *Our Future World: Global megatrends that will change the way we live (2012 Revision)* [REPORT], CSIRO (2012), available at http://www.csiro.au/Portals/Partner/Futures/Our-Future-World-report.aspx.

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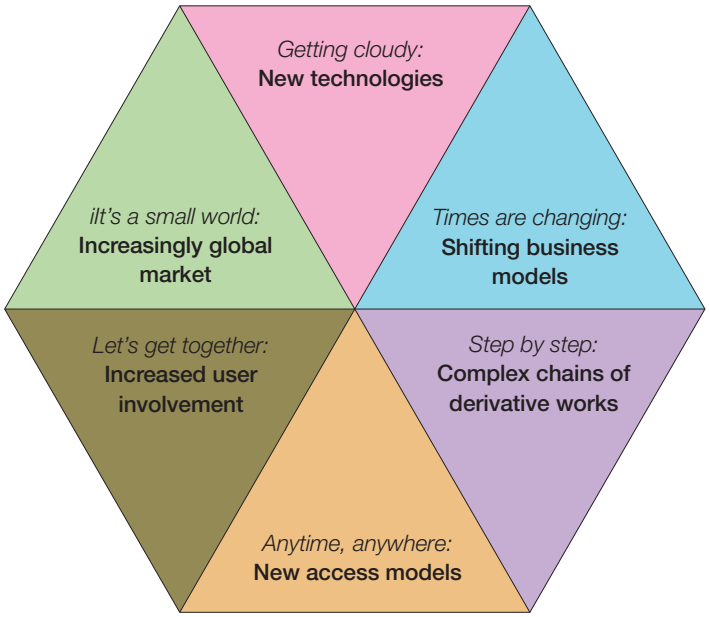


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The early 21st century has been a period of unprecedented change in how people communicate, interact and work – both individually and collectively – to generate creative

content. Much of this change is being driven by a set of overarching megatrends – i.e. areas where a number of trends or important patterns of activity converge.[1] Because these megatrends are the synthesis and aggregation of these multiple trends, this adds confidence to the potential that they will have significant impact on the creative economy of the future.

The Global Agenda Council on the Intellectual Property System undertook a process to identify a large number of trends and see where they clustered, interacted and reinforced one another. From this group of clustered trends, six significant megatrends arose.

1. Changing means of access and consumption: Distribution models are shifting towards instantaneous, ubiquitous access, often using social networks. Roles of intermediaries are also changing.

Thanks to the Internet, improved wireless networks, mobile devices that consumers carry everywhere they go, and the growth in cloud computing, the concept of location and access are increasingly decoupled. Using today's technology, it is possible for a consumer to stream a digital copy of a song stored on a home server so that it can be listened to at work, in a car or thousands of miles away on vacation.

Social networks also play a key role in content distribution. Interestingly, this distribution is often indirect. Twitter messages, for example, are often used to convey links to online content as opposed to the content itself. Because they have such enormous numbers of users, Twitter, Facebook and other social networks can drive exponential growth in content distribution over time periods as short as several hours. In some cases – in particular, when the associated content involves important news events – content distribution via social networks can be a fundamental factor in shaping events in entire countries or regions of the world.

Finally, the roles played by intermediaries are evolving. Traditionally, intermediaries were part of the physical distribution chain from creator to consumer. Today, digital distribution of content still involves intermediaries (such as Internet service providers), but the role they play is different – and in many ways more complex. One example is the significant recent growth in "over-the-top" content distribution in which a consumer uses the Internet to receive a movie, television programme or other work from a third party content provider.

These changes can create friction with licensing frameworks that have not yet caught up with the full set of consumption models enabled by today's networks and mobile devices. In particular, the technology that allows a consumer to quickly mirror legitimately purchased content on multiple personal devices, and to access that content with little regard to location, can sometimes collide with licensing constraints. Resolving these tensions in a manner that both facilitates reasonable use and protects the interests of right holders will be one of the most important challenges in updating licensing models in the next decade.

[2] *About*, CREATIVE COMMONS, http://creativecommons.org/about (last visited on 12 September 2013).

2. New technologies: Big data, the increasing complexity of virtual content, new technologies including 3D printing, and technology convergence are reshaping the creative economy landscape.

Technology has long been a key driver of change in how people create and disseminate content. In past centuries, the printing press, camera, phonograph, radio and television all spurred new approaches to generating and distributing creative works.

The technology changes in the past several decades, however, have impacted the creative process at an unprecedented pace. Writing, animation, photography, architectural design, moviemaking, graphic arts and many other creative endeavours have been revolutionized by information technology advances. The coming decade will see the expansion of creativity-enhancing technology into a literal third dimension thanks to 3D printers enabling increasingly complex structures to be produced at the push of a button.

One direct consequence of improved technology is increased efficiency. Ideas can be more quickly and easily expressed and exchanged. But perhaps even more fundamentally, technology can enhance the underlying creative process. 3D printing can enable prototyping to be far more integrated into the design cycle, greatly expanding the range of solutions that a designer can explore. The Internet, cloud computing and advanced wireless devices and networks have increased the amount of information that can be generated and incorporated in creative endeavours. These same technologies also facilitate the creation of complex virtual worlds populated by a wide range of virtual content.

Big data and the complexity of today's systems create both large challenges and large opportunities for innovation generally and the creative economy specifically. The challenges include developing new methods to harness the information and power in a growing sea of numbers. The opportunities lie in the discoveries and innovations that these data could contain, suggest or enable.

3. Increased user involvement: There are increasing numbers of participatory opportunities to engage with both the creation and consumption of content, and opportunities for co-production of content.

The past decade has seen enormous growth in shared content contributed by millions of users around the globe. Thanks to the range of license choices developed by organizations such as Creative Commons,[2] content creators have a wealth of options to choose from when sharing their work with others.

One of the most spectacular examples of successful user-generated content is Wikipedia, which now has 25 million articles in 285 languages.[3] There are about 100,000 active contributors to Wikipedia, and it is one of the world's most popular websites.[4]

[3] Wikipedia." *Wikipedia: The Free Encyclopedia*. WIKIMEDIA FOUNDATION, INC., 5 September 2013, http://en.wikipedia.org/wiki/Wikipedia (last visited on 12 September 2013).
[4] Id.

Another interesting and possibly far-reaching change to the creative economy involves the potential blurring of traditional lines between content creators and users. In applications such as massively multiplayer online games, users can be both contributors to and users of complex virtual environments. The Internet enables increased user involvement involving traditional forms of content as well. Recording artists are able to engage with their audiences much more directly than in the past. Moreover, content service providers can provide streams that are customized to the tastes of individual consumers.

Increased user involvement provides an opportunity to crowdsource creative content at an unprecedented scale. However, it also raises challenges with respect to ownership and rights to the resulting content. One important issue is the potential lack of clarity in ownership of user-contributed content. Very often, the policies applying to user-contributed content are not clearly articulated, and even when they are, many users may not be aware of them. Even when ownership is clear – for example, if licensing terms for a particular service clearly stipulate that user-contributed content becomes property of the company offering the service – there can be issues of equity. In an era when content creation is becoming much more collaborative and democratized, it will be important to ensure that the incentives to content creation become democratized as well.

4. Shifting business models: Increasing pressure on traditional business models from new business models, including lower marginal costs of production for content distributors, and a shift for consumers away from ownership of copies of content to licensed access to content.

Information technology advances have revolutionized the relationship between content providers and consumers. As the global communications infrastructure has improved, it has become practical to deliver a greater variety of content over the Internet and cellular networks. This move to electronic distribution has been illustrated by changes in how consumers obtain songs and, more recently, movies. A digital song generally occupies far less storage space than a full-length movie. Thus, while the Internet has long been used for delivering digital music, until relatively recently streaming or downloading movies to a home was often cumbersome. Now, however, consumers in many parts of the world routinely obtain digital movies over the Internet.

These trends have not only altered the nature and speed of content delivery, they have also upended traditional distribution models. Media purchases or rentals at bricks-and-mortar retail establishments have been largely replaced by electronically-delivered content. The marginal cost needed to produce and deliver an additional digital copy of a work can be negligible, making it possible for content distributors to respond to consumer demand in a much more agile manner than in the past. In addition to being delivered quickly, content can be packaged into a far greater variety of offerings than was possible in the past.

The traditional model, under which consumers were owners of legitimately purchased copies of a work, is being replaced by one in which consumers are often licensees. Thirty years ago, the purchaser of a legitimate copy of a vinyl record was an owner of that copy; today, a consumer who "buys" a digital song is almost always purchasing a license. In some respects, this shift is transparent to consumers, who continue to enjoy substantial flexibility in how they consume legitimately acquired content. But there are important changes as well. An owner of a copy of a work generally has the right to transfer ownership through a sale or other transfer (such as a donation), or to loan the work. A licensee, by contrast, often has a more limited set of options. Licensing frameworks that could allow consumers to have greater flexibility while still protecting the interests of right holders are therefore of interest.

Another important trend is for consumers to pay for access rather than ownership. This has led to the growth of music services that provide increased personalization for consumers while also returning benefits to artists each time their music is heard. This may move to other domains such as books or movies as well.

The last 15 years have undeniably been jarring to traditional business models for content distribution. But there is strong cause for optimism that new business models – such as services built around providing access rather than ownership – can offer something for everyone. Content owners can use the flexibility of the Internet and mobile devices to reach audiences that are both larger and more efficiently targeted. At the same time, today's consumers can choose from a much greater variety of services than in the past.

5. An increasingly global market for content: Globalized commerce in creative works provides consumers with a wider range of choices, and gives content providers access to larger audiences.

The Internet can enable content to move across a city, a country or an ocean with equal ease, providing content distributors with a level of access to the global market that would have been unimaginable only a few decades ago. Consumers get a wider range of choices; content creators get access to larger audiences. In addition, today's platforms and services (e.g. Amazon, iTunes) are often available in many different countries. The shape of the global market is also changing. A rising middle class in emerging economies is leading to increased content creation and consumption and to more complex global flows of creative works. At the same time, it is changing the very nature of the content being shared, which is becoming more diverse in language, culture and message.

However, cross-border content flows involve challenges as well. Most fundamentally, many aspects of national legal frameworks for addressing intellectual property rights were developed before the spread of high-speed global communications networks. Today, a single piece of content can involve a copyright owner in one country, a consumer in a second country, and cloud storage facilities in a third country. National approaches to content access can cause challenges, for example, for consumers who may find that licensing frameworks can impose geographic restrictions they consider burdensome.

International agreements such as the World Trade Organization's TRIPS treaty provide an important mechanism addressing intellectual property rights globally. But more needs to be done, particularly in terms of improved cross-border licensing frameworks and more efficient mechanisms for resolving potential conflicts involving multiple jurisdictions.

6. Increased fragmentation of copyright ownership: The atomization of content and increased production of derivative works are causing increased fragmentation of copyright ownership.

The Internet facilitates the creation of a much more diverse set of derivative works than in the past. Content on the Internet – including images, graphics, text and open source software – is routinely excerpted, repurposed and then incorporated into complex chains of derivative works. This has many potentially positive consequences, since creators of derivative works have access to a diverse and growing base of content on which to build.

However, it is important to ensure that the rights of copyright holders whose content is incorporated into derivative works are respected. This includes maintaining fidelity to licensing provisions associated with content that might impact downstream use. For example, some open source licenses require that derivative works be released to the public under the same license terms, and that they not, by contrast, be converted into proprietary software. Education can help in ensuring that derivative works are created and distributed responsibly.

Orphan works – i.e. works for which the owners of the associated copyrights are either unknown or unreachable – are another growing challenge. Orphan works are not new, but they have grown in number in recent years in tandem with the overall growth in digital content, thus increasing the need to address the liability and other issues that can accompany their use. Handling of older, pre-digital orphan works also raises important questions as libraries move to digitize their collections for online access.

Copyright authorities in multiple jurisdictions, including the United States and Europe, are actively working on new solutions to address these issues. In October 2012, the European Commission released a directive setting out "common rules on the digitization and online display" of orphan works.[5] The same month, the US Copyright Office released a "Notice of Inquiry" expressing an interest in examining the "current state of play for orphan works" and the changes "in the legal and business environments during the past few years that might be relevant to a resolution of the problem".[6]

[5] *Orphan works: Directive 2012/28/EU*, EUROPEAN COMMISSION, 19 June 2013, http://ec.europa.eu/internal_market/copyright/orphan_works/index_en.htm (last visited on 12 September 2013).
[6] *Orphan Works and Mass Digitization Notice of Inquiry*, 77 Fed. Reg. 64,555 (22 October 2012), available at http://www.copyright.gov/fedreg/2012/77fr64555.pdf.

# Publishing

Over the past decade, the rapid proliferation of tablet and mobile computer devices like the Apple iPad and Google Nexus and increasing connectivity have led to higher demand and evolved consumption patterns for the creative written content. Writers, publishers and others in the publishing field are facing a dramatically altered landscape regarding content creation, dissemination and publication. Adjusting to these changes will require a broader portfolio of approaches to managing copyright than in the past.

Traditionally, a publisher often acquired copyright from the author and assumed at least some of the financial risk of producing and distributing the resulting books, magazines, academic journals and newspapers. Publishers of printed works would carve up rights by territories, and own and manage the rights to a work on a territorial basis.[7] With the growth of the Internet and mobile communications networks and devices, distribution has become increasingly digital and global. The Internet, by nature of its architecture, is not defined by the same national boundaries, making online enforcement of territoriality difficult.[8] While these changes create new opportunities for publishers to engage directly with a broader customer base, they raise new challenges as well.

For creative works distributed in digital form, new technological advancements and evolving business models are leading to new distribution models that do not fit neatly into traditional frameworks. For example, consumers today often access intermediary online content stores (for example, the Amazon Kindle Store) to gain licensed access to content and, in some cases, can then download the work onto their own devices. Digital rights management (DRM) is used to help ensure that the content is used in accordance with the terms under which it was provided. Thus, while consumers in the past would become owners of copies of a work physically embodied in a material object such as a printed book or newspaper, today's consumers of printed works are often licensees (but not owners) of a digital copy.

There are increasing indications that the transition from paper to digital publishing can be a win-win for copyright holders and consumers. In January 2013, Amazon called e-books "a multibillion dollar category", noting that e-book revenues were up about 70% in 2012.[9] The last few years have also seen a growing number of newspapers migrate to subscription models, in some cases very successfully. The New York Times, for example, had "attracted about 640,000 paying customers to its digital versions" by the end of 2012.[10] The Wall Street Journal's digital network, which includes sites such as WSJ.com, MarketWatch.com and Barron.com, reports "more than 1.3 million paid digital subscribers and average[s] more than 50 million visitors per month".[11]

In addition to providing a new mechanism for traditional print publications to connect with readers, digital distribution has created entire new categories of published written works, greatly increasing the choices and participation opportunities available to consumers of written content. Today, there are private blogs, curated blogs, web-only publications such as Slate, and social networks such as Twitter and Facebook. In addition, many publications now have thriving "comment" forums allowing readers to engage in lively debates in response to specific articles and postings. Electronic publishing has also enabled governments to disseminate information much more quickly regarding proposed legislation, hearings and other activities, increasing the efficiency of participating in the legislative process.

Unsurprisingly, these changes are also creating challenges. With creative written work so easily distributed over the Internet, publishing companies are finding it more difficult to enforce territoriality given the anytime, anywhere access expectations of many of today's consumers. DRM has also proven imperfect despite provisions that prohibit circumvention at the international (through WIPO) and national levels. Many publishers are struggling to identify the business model that strikes the most effective balance between free and paid content. Not all newspapers have chosen to migrate to a subscription-based online model, and not all that do make that change experience success. In the academic world, there is a vigorous on-going debate regarding open access to papers published by university faculty and other researchers.

However, on balance, the move to digital distribution has been a strong net positive for consumers, and increasingly for content creators. Consumers have access to far more choices than in the past; the corollary to this is that there is room for far more content creators in the publishing realm.

The role of IP frameworks in promoting the value of written content in the global economy is more important than ever. Evolving interpretations of copyright law can have important consequences for publishers with respect to global pricing strategies.[12] Jurisdictional differences in interpretations of content licenses can raise challenges as well. Ideally, it would be desirable to achieve an increased level of international agreement regarding these issues, thereby providing a more consistent global environment for creators, distributors and consumers of written content.

[7] Fingleton, Therese and Jennifer Wilson, *The writer's guide to making a digital living: Chapter 5 - Copyright in new media*, Sydney, Australia Council of the Arts (December 2008), http://www.australiacouncil.gov.au/writersguide/copyright_in_new_media_industry (last visited on 1 March 2013).

[8] Frank Coelho, *Understanding Territorial Rights*, DIESEL, 21 June 2010, http://blog.diesel-ebooks.com/2010/06/21/understanding-territorial-rights/.

[9] Laura Hazard Owen, *Bezos: With ebook sales up 70% in 2012, Amazon has hit "transition" it expected*, GIGAOM, 29 January 2013, http://gigaom.com/2013/01/29/amazon-reports-increased-profits-and-ebook-sales-up-70-in-2012/.

[10] Eric Pfanner, *Papers Worldwide Embrace Web Subscriptions*, N.Y. TIMES, 31 March 2013, http://www.nytimes.com/2013/04/01/business/media/more-newspapers-are-making-web-readers-pay.html.

[11] *The Wall Street Journal Digital Network: Fact Sheet*, DOW JONES & COMPANY, INC., January 2012, available at http://www.dowjones.com/djcom/FactSheets/WSJDigitalFactSheet.pdf (last visited on 12 September 2013).

[12] See, e.g. the US Supreme Court Ruling in *Kirtsaeng v. John Wiley & Sons, Inc.*, 133 S.Ct. 1351 (2013), which will have a significant impact on global pricing for printed works.

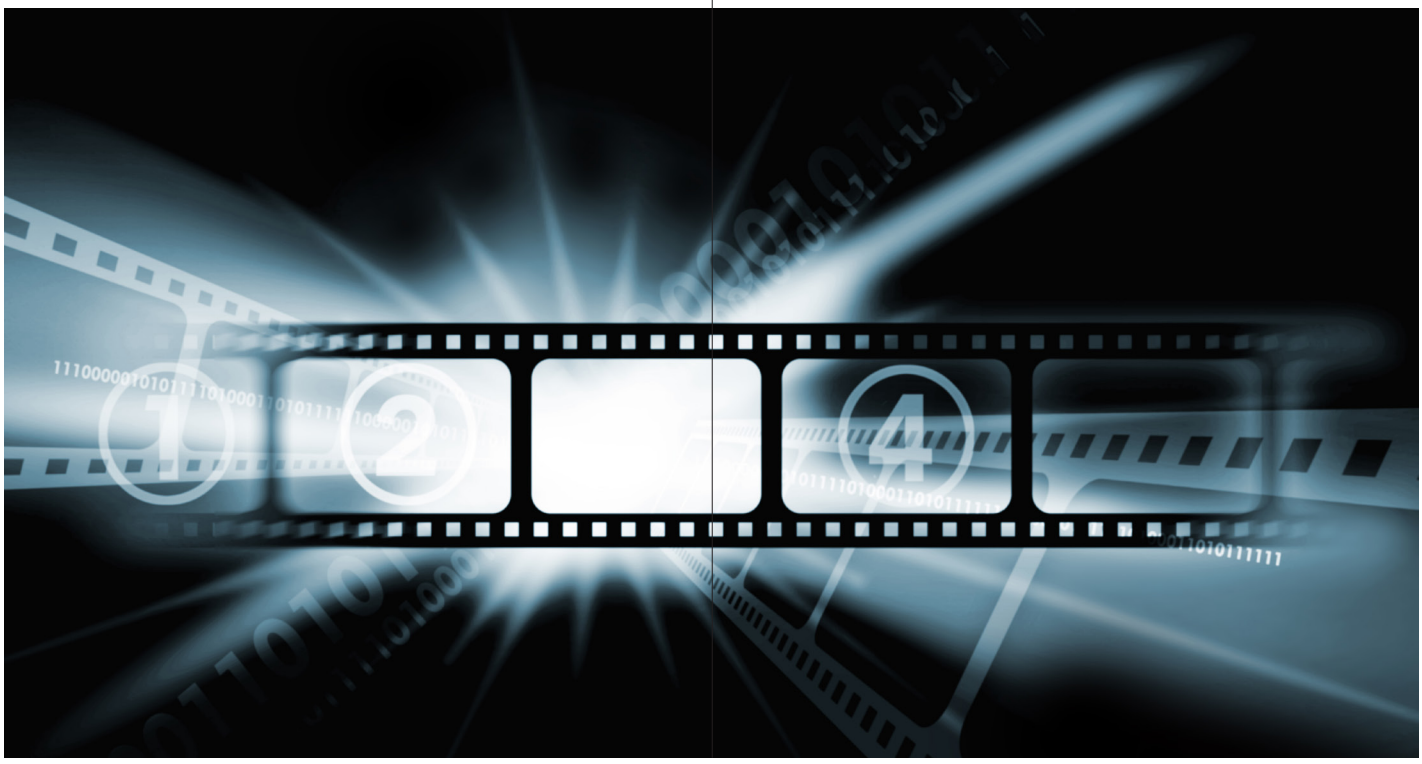
# Audio-Visual Works

This section focuses primarily on the independent film sector rather than the major Hollywood studios, which are mostly financiers and distributors of films. Audio-visual (AV) works are generally produced by independent companies which are either longstanding businesses or entities created merely for the purpose of producing an individual film. With some exceptions, the major studios (the "majors") generally do not produce their own films; instead, they focus on financing, development, rights acquisition, marketing and merchandising. This is a global business and the majors are active in nearly every part of the world. While the majors may be dominant in many markets (with some notable exceptions, e.g. India), the AV sector is a vital component of any country's national economy and cultural identity. In addition to film production, the financing and creation of other AV works for exploitation on TV, home entertainment and increasingly online platforms are an important part of the landscape.

This section looks primarily at film works (rather than TV programmes) which are exploited across media including cinemas and the Internet, and on DVD and TV. Both independent studios and the majors are adapting to the opportunities and challenges posed by new digital technologies. Improved communications networks have already wrought significant change in the sector by challenging traditional business models. AV content owners have used these opportunities to reduce release windows, develop new technologies (digital cinema, ultraviolet, etc.), launch new online services (e.g. video on-demand) and enforce their rights. One particular challenge faced by the AV sector as new business models take hold online relates to whether consumers will continue to want to own content or merely rent it. The sector is frequently criticized for not adapting quickly enough; governments in some parts of the world are considering legislative intervention that would limit contractual freedom often as part of broader considerations of copyright reform. At the international level, in June 2012 in Beijing, the member states of the World Intellectual Property Organization enacted protection for AV performers after well over a decade of debate.

The independent production, financing and distribution of AV works is composed of a complex network of large, medium- and small-scale enterprises each specialized in specific activities. Given the level of financial investment required, most AV businesses will seek to share or outsource the financial risk involved in film production and distribution. This is often done by selling rights by platform, language and/or territory to entities specialized in marketing and distributing AV content in the various exploitation channels (cinemas, online, DVD, TV, etc.). Investors are often attracted by the creative force and commercial potential of a given AV project. In many cases, even before the actual production/shooting of the film has begun, various rights will be sold by territory and/or mode of exploitation. Otherwise, the film may not get made.

Filmmaking is research-and-development intensive: developing scripts, acquiring underlying rights, casting, location scouting, production designs, etc. These development and pre-production activities are essential to the preparation of the film and can carry huge costs before a single frame is even shot. In many cases, the film does not progress to principal photography due to a lack of the necessary financing, causing the project to be shelved and forcing the producer to absorb the loss. AV production cannot function unless it returns strong working capital for the producer to recoup the investment and finance future projects.



Underlying film production is the copyright system, which provides a crucial strategic tool for securing financing and optimal exploitation of AV works by means of the exclusive rights granted to and/or acquired by producers to license the works to users (e.g. to film and video distributors, broadcasters, online platforms, etc.). Thus, copyright is much more than a mere remuneration model. Instead, it permits industry to generate a surplus beyond the basic financing requirements and compensation of its creative participants – a surplus which is necessary to ensure an on-going supply of films. Further, it is worth noting that the incidence of collective licensing in the AV sector is low. The rights are centralized in the AV producer who relies on the transfer (by law and/or contract) of exclusive rights granted under copyright law to organize the financing, production and distribution of AV works.

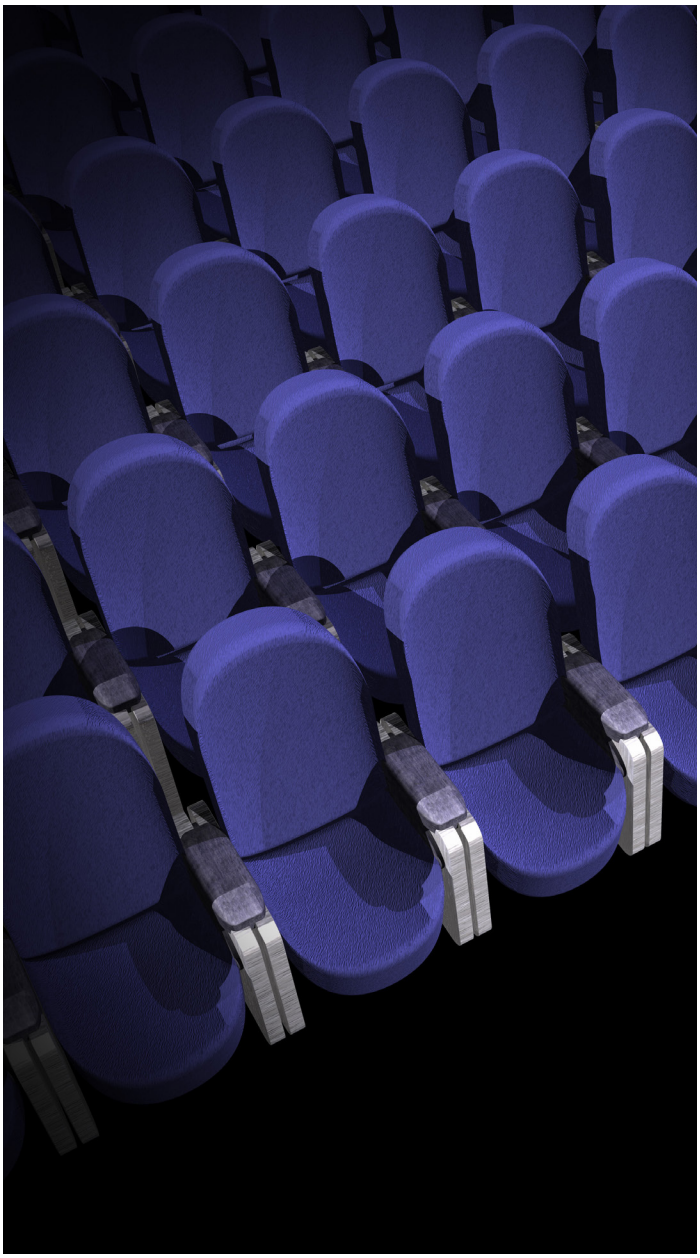
Contractual freedom and the right to choose the terms, including the distribution channel and the territorial scope of the rights licensed, are crucial to maximize revenues from AV content. As a general matter, producers who control the relevant rights can negotiate licenses covering several territories, linguistic options and/or platforms. Licensing decisions are driven by commercial demand. AV right holders should be open to commercial negotiation for licenses covering multiple territories and/or distribution channels where such licenses are bargained at arms' length.

Despite the increasingly borderless nature of digital networks, local and targeted distribution and marketing efforts are required to promote and sell films in both home and international markets. For example, just within the EU, each of the individual European linguistic markets carries its own challenges and requires targeting its individual cultural specificities. This means that each linguistic market requires an individual investment in marketing and distribution. Indeed, audiences are attracted to films by topic, language, timing and mode of distribution, all variables which are the subject of the particular expertise of producers and their partners specializing in the various distribution channels.

While there is some growth in multi-territorial services, platforms and aggregators appear focused on national or regional markets. Imposing particular licensing models can backfire and inadvertently facilitate monopolization of the market by players with greater purchasing power, to the detriment of the many smaller and mid-sized companies that constitute the backbone of independent film and TV production. In addition, constraints on licensing models could weaken cultural diversity.

While technology has enabled many advances in the AV industry, one unfortunate consequence is the growth of copyright infringement. The main way to fight online copyright infringement is through innovative legal alternatives. However, a focused enforcement policy is an essential element of developing the market for legal online services. Due to the unique financing and distribution model of the AV industry, piracy has damaging effects beyond the lost revenues. For example, piracy damages the value of films by lowering the license fees that may be obtained from local distributors (who cannot compete with "free" sources), thus removing the incentive or, in many cases, the ability to finance, produce and distribute future films.

In addition to being contrary to international norms, the proposals for flat rate "compensation" or compulsory licensing for the Internet fail to take into account the substantial financial investment necessary to produce a film, or the difficulty of ever reaching a profit, after the production, marketing and distribution costs are paid. The future of the AV sector will depend not only on individual creativity and entrepreneurial vision, but also on a supportive legal regime that nurtures innovation through contractual freedom and exclusive rights.



# Music

Of all of the forms of creative content, music may provide the best example of how the shift to a digital world can impact content creators, consumers and the business models that connect them. The first reason is its universality. From the earliest recorded history to today, music has been an important part of the culture of nearly every civilization the world has known. The second reason is less fundamental but nonetheless of great practical consequence: when represented digitally, music requires far less storage than movies. Thus, as it has become possible and then easy over the past 15 years to distribute content digitally, it is music that has often been at the vanguard in encountering both the opportunities and challenges of a digital world.

Musical works typically have more than one copyright holder. Copyrights for musical compositions are often held by songwriters and music publishers, while sound recording copyrights are usually held by artists and record labels. Performing rights organizations (PROs; also sometimes called collecting societies) can play a central role in collecting and distributing royalties. Royalty rates can be negotiated directly between music copyright holders and users, negotiated with users through an intermediary such as a PRO, or in some cases determined by governments through statutory rate setting proceedings.

For almost the entire 20th century, recorded music was generally provided through broadcasts on terrestrial over-the-air AM and FM radio, inclusion in television and movie soundtracks, and sales of physical copies of sound recordings. For many decades, records were the most common format before being complemented by various tape formats in the 1960s, 1970s and 1980s, and then almost entirely supplanted by CDs in the 1990s. Sales often occurred either in person at retail establishments or through mail order.

Today, thanks to the growth of the Internet and continuing declines in digital storage costs, the landscape has become very different. Traditional broadcasting methods have been augmented by the emergence of "pureplay" Internet providers, satellite radio, cable and a growing variety of interactive services. Sales of physical copies of songs are being replaced by online purchases.

For holders of musical composition and sound recording copyrights, the transition to digital distribution has long been viewed as a double-edged sword. One the one hand, music can now be delivered in a far greater variety of ways, offering expanded opportunities for songwriters, recording artists and consumers. On the other hand, music piracy remains a major concern. It is no accident that annual global music industry revenues have dropped from nearly US$ 30 billion in 1999[13] to US$ 16.5 billion in 2012.[14]

Yet, there is cause for optimism as well: 2012 was the first year since 1999 that music industry revenues experienced year-over-year growth rather than decline.[15] The number of people paying for subscription services grew a remarkable 44% in 2012,[16] providing a strong indication that new business models for music distribution can be a win-win for both content owners and consumers.

The environment for managing music copyrights is more complex than ever, as music creators, record labels, PROs and governments work to facilitate new mechanisms for today's consumers to get legitimate music content. Cross-border music delivery in particular is an important trend that will require attention at the regional and global level.

In July 2012, as part of its broader efforts to promote a "single market" for intellectual property,[17] the European Commission proposed measures to improve music licensing by modernizing collecting societies.[18] Such regional approaches can play a vital role in providing right holders with improved transparency and in making regional music delivery markets more efficient. However, in a world where music distribution is increasingly global and instantaneous, the process for identifying the copyright owners and permitted uses associated with a particular piece of music can still be inconsistent and inefficient. To address this, it will be important to consider steps including voluntary regional and/or global music copyright registries and international harmonization of performance remuneration rights. While registration of music copyrights is common today at the national and regional level, those registries are used primarily to facilitate copyright enforcement. By contrast, there are opportunities to implement regional or global registration frameworks specifically designed to facilitate licensing and identification of right holders in an increasingly globalized distribution environment.

[13] Randy Lewis, *Global music sales up 0.3% in 2012, first increase in 13 years*, L.A. TIMES, 26 February 2013, http://www.latimes.com/entertainment/music/posts/la-et-ms-global-music-sales-increase-20130226,0,7884714.story.
[14] *IFPI publishes Digital Music Report 2013*, IFPI.ORG, 26 February 2013, http://www.ifpi.org/content/section_resources/dmr2013.html.
[15] Id.
[16] Id.
[17] European Commission Press Release, *Copyright: Commission proposes easier music licensing in the Single Market*, 11 July 2012, http://europa.eu/rapid/press-release_IP-12-772_en.htm?locale=EN.
[18] Id.

# Software and Lessons from Free and Open Source Models

Much of the software produced in the 1950s and 1960s was "open" in the sense that it was developed by computer science academics and corporate researchers working together and distributing results under principles of transparency, sharing and cooperation. Simply because of the way computers were built as large and expensive mainframe machines in air-conditioned computer rooms, they were frequently supplied on a lease rather than purchase basis with services and accompanying software supplied by manufacturers without additional charge. This practice allowed for software to be a subject of study, research and development, significantly progressed by academics and corporate researchers with a common goal – to constantly improve the software and spur innovation.

However, starting in the late 1960s and early 1970s with proliferation of computing power at progressively lower cost, and accelerating in the 1980s with the spread of personal computers, new opportunities emerged and matured to define a separate market for software: since software is covered by copyright, which along with contract law provides a legal basis for its owner to establish exclusive rights, these rights were assigned or licensed under individual terms depending on the underlying business model. In fact, software developers have long been able to obtain copyright protection for their works, but the practice to commercially license software independently from hardware components became widespread starting in the early 1970s. Unbundling hardware and software components to be sold separately and under different conditions opened the door for a multibillion dollar software and service industry as most customers moved to purchasing additional software and services separately from hardware.[19]

To complete the business model of using copyright in software as a property to be licensed independently from hardware components, most commercially licensed software is distributed in machine-readable "object code" format only, which is difficult for humans to understand, analyse or modify. The corresponding human-readable "source-code" is typically kept proprietary and not disclosed in order to minimize chances that competitors will identify and copy the methods embodied in the code. As a result, proprietary software products are not only subject to a variety of payment systems but also "closed" for the user to understand and modify.

While the distinction between human-readable source code and machine-readable object code reflects a legitimate business model, some argue that users should be able to study and change the software in use, e.g. to remove malicious elements or identify and address security issues, without having to rely on updates and support from respective software vendors. This argument is often supported by the experience of exponential growth of software (both quantitatively and qualitatively) in the early days of computers, when software, and especially its modification and distribution, was mostly available without any license constraints. Advocates of free and open source software have long claimed that it can provide a superior production method and leads to superior software.[20]

As a consequence of the on-going debate on software business models, a variety of perspectives and positions have evolved, in which supporters of free and open source software focus on promoting software as "free" in the sense that it is publicly available with fewer restraints as to source code access, as well as further distribution of both source and object code, not necessarily in the sense that it is "costless". "Free" software is the term used and strongly recommended by the Free Software Foundation, which was founded by Richard Stallmann in 1985. The term "open source" software was developed and promoted in the late 1990s to clarify the main goal of software being available for modification instead of being available without costs. For details, see Jaeger/Metzger, Open Source Software, 3rd edition, 2011. Hence, the main goal of the free and open software approach is not to make software available free of charge but under terms that facilitate studying and modifying the software. To assure ability to modify and distribute, free and open source software is released under public licenses granting users the necessary rights to 1) run the program for any purpose, 2) study and change the program, 3) redistribute copies, and 4) improve the program and release improvements.[21]

To fully and uniformly achieve these objectives, most public licenses require that the respective source code must be freely available and that modification must be allowed. But the various public licenses differ tremendously in the extent to which they impose additional restrictions on the licensee. One of the most important but also most controversial versions of such licenses are those that require further licensees, who modify the software, to make such modifications available under the same terms under which the initial software was released (copyleft). Copyleft is an essential criterion of the GNU Public License, or GPL. Such copyleft licenses are drafted as legal mechanisms to ensure that free and open source software remains freely available and is not captured into closed and proprietary forms. However, a variety of other public licenses allow greater flexibility with regards to the "re-mixing" requirement, such as the LGPL, the Mozilla Public License or even the BSD or Apache License.[22]

[19] See overview on software history at IBM available at *History of IBM: 1960s*, IBM.COM, http://www-03.ibm.com/ibm/history/history/decade_1960.html (last visited on 12 September 2013).

[20] See Raymond, Eric S., *The Cathedral and the Bazaar* (Version 3.0 ed.)(2000), available at http://www.catb.org/esr/writings/homesteading/cathedral-bazaar/.

[21] For details, see the Free Software Definition and especially the four freedoms by the Free Software Foundation, available at *What is free software?: The Free Software Definition*, GNU OPERATING SYSTEM, http://www.gnu.org/philosophy/free-sw.html (last visited on 12 September 2013).

[22] See detailed overview and analysis provided by the Institute for Legal Questions on Free and Open Source Software available at *License Center*, IFROSS.ORG, http://www.ifross.org/ifross_html/lizenzcenter-en.html (last visited on 12 September 2013).

While free and open source software was first seen as a tool for tech-savvy enthusiasts and hackers, the widespread diffusion of Internet access in the early 1990s allowed for an enormous increase, indeed mainstreaming, in free and open source activity and popularity. The volume of contributions and diversity of contributors expanded sharply. A variety of new free and open source projects emerged, most notably Linux, an operating system developed by Linus Torvalds in 1991. With almost 2.6 billion people connected to the Internet, the Internet itself can be seen as the greatest collaboration platform in history serving as a testbed for various new business models, ranging from traditional property rights and related sales or licensing modes to crowdsourcing and sharing approaches. Fuelled by the Internet, Linux itself moved from supercomputers to become the basis for Android, one of the most popular operating systems in the mobile industry.

Companies like Canonical Ltd and Red Hat, which operate on a professional open source business model based on open source software while selling subscriptions for support, training and integration services, and platforms like Kickstarter,[23] which allow access to a variety of funding and payment models, have spearheaded new perspectives on business opportunities and strategies using Internet technologies. In addition to the long known role of intellectual property rights in stimulating investments, a variety of newer factors are playing an increasingly important role for investors and innovators alike, including cost-sharing synergies, many-eyes to reduce or quickly address bugs, and ease of customization that come with open source software.

In summary, it is clear that the software sector is enjoying enormous growth in free and open source based innovation. Despite legal constraints and issues around compatibility between proprietary and public licensing schemes, the software sector has evolved significantly and positively over the decades since its inception, and is without doubt one of the most innovative sectors of our times. Important questions, however, remain: can the open source production model be transferred to other industries? And what kind of legal system do we need to encourage and foster innovation and prosperity beyond the software sector?

Different industries require different methods of development. Some industries have to rely on large-scale teamwork as well as substantial capital costs as opposed to individual contributions and low capital investment.[24] But the free and open source software sector can be seen as a role model for flexible ideas and hybrid business models. Customer needs, customer support and customer involvement will play an increasingly important role in future business models. To respond to this development, new methods of collaboration and new governance structures as demonstrated by the software sector can offer a potentially effective approach to establish functional and innovative progress across industries.

Open and public licensing models such as the one developed and demonstrated by the free and open source software sector work alongside the current copyright system and rely on exclusive rights vesting in the original author of a work protected by copyright. Hence, there is an argument that the current legal system works well and allows for adequate flexibility and differing production and business models. Yet, all software licensing models – open as well as proprietary – "interfere" in a sense with the current mosaic-like approach of copyright defined by the rule of territoriality, which gives each copyright holder a "bundle of different national copyrights" instead of "one global copyright".

Irrespective of how to interpret the wording of the Berne Convention, and without a detailed analysis of all arguments, the current tendency is to stick with the rule of territoriality on questions of copyright, especially regarding the existence and duration of copyright and neighbouring rights, moral rights or even questions about fair dealing or limitations and exceptions of the exclusive copyright.[25] In addition, the variety of different licensing models, including various public and proprietary licenses, creates significant challenges with regard to interoperability. Finally, the current system struggles to keep pace with new technologies. Updating copyright systems in a way that not only encourages additional licensing models but also respects the originally envisaged balance between author's rights and public access is long overdue.

[23] See *FAQ*, KICKSTARTER.COM, http://www.kickstarter.com/help/faq/kickstarter%20basics (last visited on 12 September 2013).
[24] See Lerner, Josh and Jean Tirole, *The Economics of Technology Sharing: Open Source and Beyond*, Vol. 19, No. 2, JOURNAL OF ECONOMIC PERSPECTIVES, at pg. 99-120 (Spring 2005), available at http://www.nber.org/papers/w10956.

[25] For details see § 301 of American Law Institute, Intellectual Property: Principles Governing Jurisdiction, Choice of Law, and Judgments in Transnational Disputes, 2007 and Articles 3:102, 3:201, 3:301, 3:601 of European Max Planck Group on Conflict of Laws in Intellectual Property (CLIP), Principles for Conflict of Laws in Intellectual Property, Second Preliminary Draft (6 June 2009), available at *About CLIP*, MAX PLANCK SOCIETY, http://www.cl-ip.eu (last visited on 12 September 2013).

# Recommendations

- Governments should undertake regular reviews of copyright frameworks in the digital era. In conducting these reviews, governments should not only study the changing creative content landscape in a world in which much of the population now has at least one Internet-connected device, but also move to concrete action, as appropriate where evidence demonstrates such action is required, to update national copyright laws and coordinate them between nations.

- Policy-makers should develop frameworks enabling increased lawful access to content via the Internet, thereby reducing the incentives to obtain pirated content.

- A voluntary global registry for copyrighted content should be created to facilitate licensing of copyrighted material. In contrast with national registries, which can continue to play an important function in relation to jurisdiction-specific enforcement actions, a global registry would be aimed principally at enabling copyright owners and users to efficiently connect and identify licensing solutions appropriate for a particular use.

- New approaches to addressing orphan works should be developed and formalized. Technology changes in the last decade have made it far easier to identify authors and other right holders using reasonable efforts. Frameworks for handling orphan works should be updated to reflect these changes, and should be reviewed and modified as appropriate in the future as search technology continues to advance.

- Attention needs to be given to ensure that all players in the value chain are contributing appropriately to today's distribution landscape. Collective management organizations, right holders and policy-makers should work together on global standards for acquiring and distributing content use information.

- Policy-makers and content distributors should encourage the development of globalized digital marketplace approaches that could reduce geographical impediments to commerce in digital works.

- Policy-makers and right holders should adopt a common set of Digital Copyright Principles that can help ensure a fair balance between the interests of copyright owners and users.

# Digital Copyright Principles

1. Creators and producers of creative works should receive meaningful protection, recognition and compensation for their contributions to economic and cultural development.
2. Copyright law should reflect an appropriate balance between the rights of creators and copyright owners and the interests of consumers and other users of works.
3. Copyright law should be regularly reviewed and updated as appropriate to respond to new technologies and uses.
4. Copyright systems should enable rights to be meaningfully, practically, cost-effectively and proportionally enforced.
5. A wide range of means should be available for creative works to reach the public, as enabled by the Internet and other technologies – maximizing choice for both right holders and users. It is desirable to have as much quality content as possible available in as many formats as possible.
6. Licensing should be streamlined in a content-appropriate manner and simplified to be as easy and efficient as possible, including for different types of content and across national boundaries.
7. The public should be educated about the purpose, scope and nature of copyright protections, including exceptions, and the reasons for proposed changes or government action.

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