

International Journal of Music Business Research

Volume 7, Number 1, April 2018

Editors:

Peter Tschmuck

University of Music and Performing Arts Vienna, Austria

Dennis Collopy

University of Hertfordshire, UK

Daniel Nordgård (book review editor)

University of Agder, Norway

Carsten Winter

University of Music, Drama and Media Hanover, Germany

AIMS AND SCOPE

The International Journal of Music Business Research (IJMBR) as a double-blind reviewed academic journal provides a new platform to present articles of merit and to shed light on the current state of the art of music business research. Music business research involves a scientific approach to the intersection of economic, artistic (especially musical), cultural, social, legal, technological developments and aims for a better understanding of the creation/production, dissemination/distribution and reception/consumption of the cultural good of music. Thus, the IJMBR targets all academics, from students to professors, from around the world and from all disciplines with an interest in research on the music economy.

EDITORIAL BOARD

Dagmar Abfalter, University of Music and Performing Arts Vienna, Austria

David Bahanovich, Trinity Laban Conservatoire of Music and Dance London, UK

Marc Bourreau, Université Telecom ParisTech, France

Ryan Daniel, James Cook University Townsville, Australia

Beate Flath, University of Paderborn, Germany

Simon Frith, University of Edinburgh, Scotland, UK

Victor Ginsburgh, Université Libre de Bruxelles, Belgium

Philip Graham, Queensland University of Technology, Australia

Christian Handke, Erasmus University Rotterdam, The Netherlands

Susanne Janssen, Erasmus University Rotterdam, The Netherlands

Martin Kretschmer, University of Glasgow, UK

Frank Linde, Cologne University of Applied Sciences, Germany

Martin Lücke, Macromedia University for Media and Communication, Campus Berlin, Germany

Jordi McKenzie, Macquarie University Sydney, Australia

Juan D. Montoro Pons, University Valencia, Spain

François Moreau, Université Paris 13, France

Guy Morrow, Macquarie University Sydney, Australia

Daniel Nordgård, University of Agder, Norway

Felix Oberholzer-Gee, Harvard Business School, US

Lucie Šilerová, Janáček Academy of Music, Czech Republic

Alfred Smudits, University of Music and Performing Arts Vienna, Austria

Eva Stöckler, Danube-University Krems, Austria

Michael Theede, Macromedia University for Media and Communication, Campus Hamburg, Germany

Aleksandra Wagner, Jagiellonian University Krakow, Poland

Patrik Wikström, Queensland University of Technology, Australia

International Journal of Music Business Research

Volume 7, Number 1, April 2018

CONTENTS

Editorial 4

Articles

Exploring bounty and spread: key changes in the Danish music streaming economy
Rasmus Rex Pedersen 6

Blockchain: A new opportunity for record labels
Opal Gough 26

Compulsory licensing in Ecuador's music industry: a daring strategy within the new intellectual property law in order to regulate music piracy
Abner Pérez Marín 45

Book review: Digital Music Distribution: The sociology of online music streams by Hendrik Storstein Spilker
Daniel Nordgård 72

Notes for contributors 75

Editorial

*Dennis Collopy*¹

The first article of this issue of the International Journal of Music Business Research (IJMBR), "*Exploring bounty and spread: key changes in the Danish music streaming economy*" by Rasmus Rex Pedersen examines the structural effects of the transition to the access-based business model of music streaming, at a time when the global music streaming market is growing and developing quickly. Pedersen argues the Nordic countries as early adopters are suitable test-beds for research on the consequences of this shift, and his paper uses unique fresh data on the Danish recorded music market as well as existing research on the cultural industries and the industrial information economy. Central to his analysis are the new consumption patterns, business models, and principles for royalty payments but what is noteworthy is his carefully argued consideration of both the 'blockbuster' and 'longtail' theories in relation to the emerging market for music streaming.

The second article is "*Blockchain: A new opportunity for record labels*" by Opal Gough, which points to the opportunities for the music industry from blockchain technology, especially the chance to develop an international industry database for musical compositions and sound recordings as well as streamline processes, remove inefficiencies and improve cash flow. This very timely paper reviews current literature on blockchain architecture and provides fascinating recent and relevant case studies along with technical insights on the issues that are affecting the major record labels and other stakeholders' engagement with this potential solution to the industry's problems in managing increasing volumes and complexity of data in the digital music economy.

¹ **Dennis Collopy** is Senior Research Fellow at the University of Hertfordshire in the UK, where he leads the Music and Entertainment Industry Research Group which has been involved in a 10-year programme investigating modern challenges to Intellectual Property (IP) Rights including divergent international legal regimes and norms, consumer attitudes to IP, measuring infringement of IP Rights, the emergence of new technologies and most recently the impact of social media on IP Rights. (d.p.collopy@herts.ac.uk).

The concluding article of this issue is "*Compulsory licensing in Ecuador's music industry: A daring strategy within the new intellectual property law in order to regulate music piracy*" by Abner Pérez Marín. This paper examines compulsory licensing in relation to the management of music piracy in Ecuador and describes how, in October 2016, Ecuador's Government replaced its Intellectual Property Code with the Organic Code of the Knowledge's Social Economy and Innovation, branded as Código Ingenios. This new code included an option for compulsory licensing for copyright protected products that could be applied to the Ecuadorian music recording industry. The paper considers the views of lawmakers and recording industry stakeholders along with the potential implications for content creators and especially consumers in relation to the introduction of compulsory licensing.

Daniel Nordgård's book review of "*Digital Music Distribution: The sociology of online music streams*" by Hendrik Storstein Spilker rounds up the IJMBR's April 2018 issue. Daniel's review evaluates Spilker's critical approach to digitalisation and the music business, which focuses on some paradoxes following digitalisation.

The IJMBR is aimed at all academics around the world, from students to professors, from all disciplines and with an interest in music business research. Interdisciplinary papers will be especially welcome if they address economic and business-related topics in the field of music. We look forward to receiving as many interesting papers as possible. Please send paper proposals to music.business.research@gmail.com.

Exploring bounty and spread: key changes in the Danish music streaming economy²

Rasmus Rex Pedersen³

Abstract

This article analyses the structural effects of the transition from the sale of music in physical and digital form to the access-based business model of music streaming. The global music streaming market is currently maturing rapidly, and as early adaptors, the Nordic countries provide early indications of the consequences of this shift. The article builds on existing research in the cultural industries and 'the industrial information economy' (Benkler 2006) and seeks to provide knowledge on the impact of music streaming on the Danish market for recorded music. Central to this topic are new consumption patterns, business models, and principles for royalty payments.

Keywords: Music industry, music streaming, blockbuster economy, back catalogue, Sony Music Denmark

1 Introduction

The main research question of the article is how the transition to a streaming based economy of recorded music affects the business models of the Danish recording industry.

This is analysed by drawing on a combination of qualitative and quantitative methods in order to develop knowledge of the changing structural conditions and to assess the consequences of these changes for different strata of musicians.

Music streaming has been conceptualized as the 'second wave of digital disruption in the music industry', which arguably has even more radical effects on the music industry than the first wave embodied by the digital downloads made popular by the introduction of the iTunes Store in 2003 (Wikström & DeFillippi 2016: 2). This first wave had disrupt-

² This article presents findings from research funded by the Danish Ministry of Culture and Rhythmic Music Conservatory, Copenhagen.

³ **Rasmus Rex Pedersen** is Assistant Professor, PhD at Roskilde University, Department of Communication and Arts. His interdisciplinary research centres on how digitalization affects business models, organization, and working conditions in the music industry. (rasmusr@ruc.dk).

tive impact on the recording industry through the introduction of effective digital distribution and the unbundling of the music album (Elberse 2010), but digital downloads still represented sales of individual products. Therefore, the economic and contractual structures guiding the distribution of royalties were "*predictable, transparent and in line with established music industry practices*" (Wikström & DeFillippi 2016: 2).

Music streaming represents a significantly different economic model to both physical and digital sales. With streaming, music is monetized as a service rather than as a product (Wikström 2013), and the revenue is paid out to rights holders as a continuous stream of micro payments whilst the music is listened to, rather than as a lump sum when the music is acquired. As Wikström & DeFillippi (2016: 3) argue, this represents a more radical disruption of the prevailing business logic because it fundamentally transforms the way revenues are generated and distributed in a way that does not fit well with the analogue era structures.

This article analyses the emerging patterns of revenue generation and distribution based on industry revenue data supplied by IFPI Denmark as well as detailed data on user patterns that have been generously supplied by Sony Music Denmark. The analysis has been informed by explorative qualitative interviews (Kvale 1997) with informants, representing a broad selection of Danish music industry executives, music managers, representatives from musicians' unions, and musicians. The interviews were analysed to identify central themes in the transition to a streaming based economy for recorded music, and these themes were then developed further based on quantitative data.

I identified three central themes that will be analysed in this article: Firstly, the conception of a 'Blockbuster' (Elberse) or 'Winner-takes-all' (Brynjolfsson & McAfee 2014) economy is developed to provide an understanding of the overall trends in music streaming consumption. In particular, the analysis explores how the rapid growth of available music affects our understandings of market concentration. Secondly, the changing role of the 'back catalogue' is examined. In an economy in which rights holders are remunerated through micropayments each time their music is actually listened to, rather than through lump sums

when the music is acquired, the economic importance of previous releases increases. Thirdly, the changing business models in the recording industry are examined briefly, and the concept of 'option value blurring' (Wikström 2013) is developed to analyse the complex interests at play in the relationship between the music industry actors and music streaming services.

The article analyses the empirical data in conjunction with existing theories of the organization and economy of the recording industry, as well as economic and structural consequences of digitalization.

The primary data for the quantitative analysis were collected through Sony Music's data resource service SAMIS, to which I was granted unlimited access by Sony Music Denmark. The data were retrieved from the 'primary artist' module, meaning the analysis was carried out at the band or artist level, and *not* that of the individual rights holders. In practice, the vast majority of releases have multiple rights holders, but this aspect is not taken account of in this analysis. Where a release is presented as a primary artist performing with another featured artist, the release has been assigned to the primary artist.

Unless otherwise stated, the data presented in this article represent streams by Danish users across music streaming services like Spotify, Yousee Musik, Apple Music, Tidal, etc., but notably does not include YouTube, the most widely used music-streaming platform in Denmark (IFPI 2017).

2 Polarization between artists in music streaming

In their analysis of how technological change affects the economy, Brynjolfsson & McAfee identify *bounty* and *spread* as the two primary economic effects of technological progress. They define bounty and spread as follows:

"Bounty is the increase in volume, variety, and quality and the decrease in cost of the many offerings brought on by modern technological progress. It's the best economic news in the world today. Spread, however, is not so great; it's ever-bigger differences among people in economic

success – in wealth, income, mobility, and other important measures. Spread has been increasing in recent years." (Brynjolfsson & McAfee 2014: 12).

The consequence of the dynamics of bounty and spread is that *"Rapid advances in our digital tools are creating unprecedented wealth, but there is no economic law that says all workers, or even a majority of workers, will benefit from these advances."* (ibid.: 128). In fact, although the American economy grew significantly between 1983 and 2009, the bottom 80 percent of the income distribution saw a net decrease in their wealth (ibid.: 131). The same type of reallocation of wealth can be illustrated by the diverging patterns of the median and average income in recent years.

From this perspective, an important consideration about the effects of technological progress on the economy within society as a whole, as well as within the music industries, is whether the bounty will be strong enough to compensate for the spread.

Brynjolfsson & McAfee (2014: 154) argue that the dynamics of bounty and spread outlined above provides the conditions for a 'winner-take-all economy'. There are two primary reasons for this. Firstly, the marginal costs of producing and distributing digital goods are significantly lower. Secondly, digital markets are increasingly global in scope.

"When there are many small local markets, there can be a 'best' provider in each, and these local heroes frequently can earn a good income. If these markets merge into a single top market, top performers have an opportunity to win more customers, while the next-best performers face harsher competition from all directions. [...] suddenly second-rate producers can no longer count on consumer ignorance or geographic barriers to protect their margins" (ibid.: 155).

The effect of this would be not only a shift towards a polarization between the hits and misses on a local or regional scale, but also towards an increased dominance of international superstars.

The Danish market for recorded music is an example of this dynamic. Along with Sweden and Norway, Denmark was among the first in the

world to transition to a streaming based economy for recorded music. The explosive growth in music streaming revenue compensated for decreasing revenues from digital downloads and CD sales and led to year on year growth among Danish music companies between 2012 and 2016 (IFPI 2017). From an industry perspective, this has given rise to a modest sense of optimism. However, some Danish musicians like Jens Unmack (Kjær 2015) and Trine-Lise Væring (Vuorela 2013), mirroring international musicians like Thom Yorke, Billy Bragg, and David Byrne (Nordgård 2016), have articulated a public critique of the music streaming economy. A recurring point in these critiques is that artists cannot recognize the picture of streaming as a sustainable economy, and this is often attributed to music streaming being sustainable only for the most popular artists. As Trine-Lise Væring phrases it in a newspaper interview:

"It is good to know that the industry is showing progress, but it is hard to recognize from where I stand. Because it doesn't mean that they pay the artists more money. [...] I have never met any small or medium level artists who make money from streaming" (Kjær 2015) [translated from Danish by this author].

In analyses of the market for digital downloads, music industry scholars and analysts drew similar conclusions and conceptualized the digital music market as a 'blockbuster' or 'superstar' economy (Elberse 2013; Mulligan 2015) where a small fraction of the artists account for a majority of the earnings. As Elberse noted in her analysis of sales of digital tracks in USA: *"as the market for digital tracks grows, the share of titles that sell far too few copies to be lucrative is growing as well. More and more tracks sell next to nothing"* (Elberse 2013: 160). The 102 tracks that sold more than a million units in the U.S. in 2011 accounted for 15 per cent of total sales, meaning that 0.001 per cent of the tracks sold that year accounted for a sixth of all sales (ibid.).

A similar polarization can be found in the streaming market. Out of the 46,031 artists distributed in Denmark by Sony that were streamed at least once in 2016, the top 1 per cent accounted for 80.68 per cent of all

streams, while the bottom 90 per cent of artists accounted for only 1.50 per cent of all streams. This is illustrated in figure 1a.

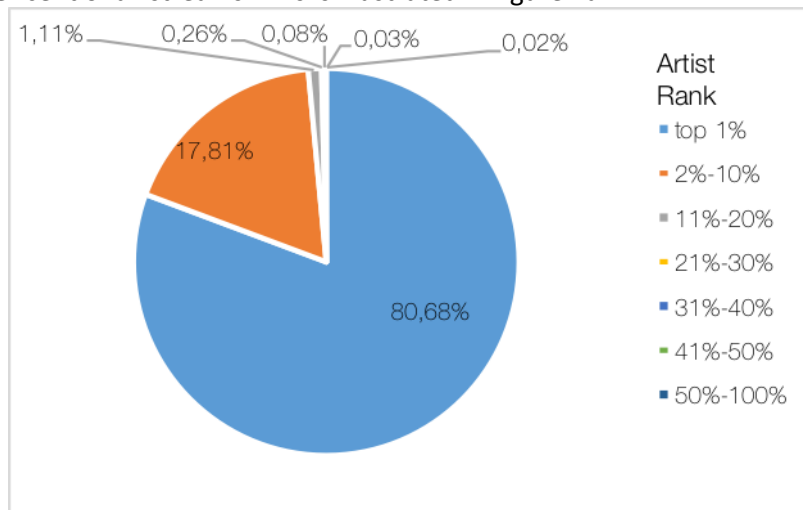


Figure 1a: Share of total streams among Sony Music artists with at least 1 stream, Denmark 2016

A similar pattern holds true for the worldwide streaming market. Among the 77,819 Sony artists streamed at least once worldwide in 2016, the top one per cent accounted for 77.22 per cent of all streams, whereas the bottom 90 per cent of artists accounted for only 2.08 per cent of all streams.

For a sense of perspective, it is however important to keep in mind that the amount of available music has increased radically since the advent of digitalization. In 2014, the largest Danish CD retailer FONA had 20,000 active titles (primarily albums) available for order (Pedersen 2014). Comparing this number to the number of Sony-affiliated artists that were streamed at least once in 2016, illustrates how the availability of music has grown enormously, which in turn points to a conundrum of the music streaming market. On the one hand, it is evident that a significant share of the artists will never be able to make a profit from having their music on streaming services. Out of the 46,031 Sony artists

that were streamed in Denmark in 2016, 33,282 artists were streamed less than 1,000 times. In the physical sales era, many of these artists would not have been available on the established market because it would not have been financially viable to distribute and sell their products. In this sense, it could be argued that these artists should not actually be considered a part of the commercial market for recorded music. Even so, they *are* a part of the commercial market for music. Their music is available alongside international superstars on streaming services. This points to the blurring of boundaries between amateur and professional producers that can be found across the Internet.

The effect of this conundrum is that it is extremely complex to compare the streaming and sales economies. Including in an analysis the majority of artists that would not have been part of the commercial market for sales of recorded music in the previous era nor are meaningfully part of the streaming economy would obscure the findings, giving far too much weight to effects related to artists that are only in principle part of the market. I have therefore chosen to eliminate artists with fewer than 1,000 streams in a given year from the rest of this analysis. After excluding artists with less than 1,000 streams, the distribution of streams is less polarized, as illustrated in figure 1b:

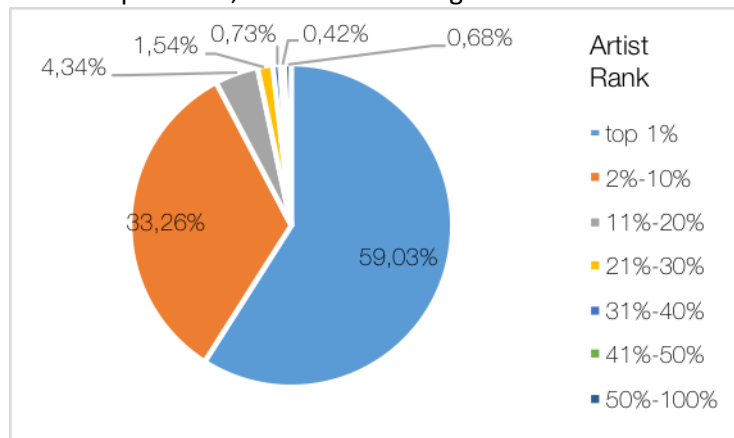


Figure 1b: Share of total streams among Sony Music artists with at least 1,000 streams, Denmark 2016

Even after excluding artists selling with fewer than 1,000 streams, it is still extremely difficult to measure market concentration in a market when the amount of music that is available to consumers is growing steadily. Figure 2 illustrates the problem. Here we can see that the top 1 per cent artists' share of streams among Sony Music's artists in Denmark grew gradually from 2013 to 2016, increasing their share from 49.6 per cent in 2013 to 59.0 per cent in 2016. One might be tempted to conclude that as the streaming market matures, it becomes increasingly polarized. However, if we instead focus on the top 100 artists, their share of streams has been relatively stable in the same period.

	2016	2015	2014	2013
Top 1% Artists	59.0%	54.8%	52.5%	49.6%
Top 100 Artists	54.1%	52.3%	54.9%	55.8%

Table 1: Top artists' share among Sony Music artists with at least 1,000 streams in Denmark

The incongruity in the two visualizations of market concentration mentioned above can be explained by the growth of the number of songs available in the long tail.

In 2017, Danish users streamed more than one million different tracks daily (IFPI 2017), far more tracks than would have been available to consumers in physical retail. The effect of this is that the streaming market greatly increases the number of songs in what Anderson (Anderson 2006) has coined 'the long tail'. When the long tail grows, the actual number of artists that constitute the top 1 per cent grows. The effect of this is that although the market share for these artists as a group is growing, the individual artists that compose this group do not necessarily grow their market share. Indeed, they might actually experience a loss in market share, as we see for the aggregated market share of the top 100 artists. However, because of the increasing number of artists with almost no economic significance entering the market because of eroding

barriers to entry, the number of artists included in the top 1 per cent is growing. In other words, the aggregated market share of the most popular artists is growing, but this is a consequence of diversity and increased availability of music and is not in itself an indication of an increasing polarization of the market.

This points to an important difference to the notions of bounty and spread used by Brynjolfsson & McAfee. When analysing developments in the distribution of wealth among a country's inhabitants, the population of the analysis is relatively static. In contrast to this, the population of both musicians and music has been growing explosively with the consequence that concept of spread has to account for the degree of polarization between the top and bottom of the income distribution (the evenness of the spread), as well as for the development in the size of the population that gets a share of the bounty (the extent of the spread).

The importance of these dynamics is increased by the introduction of digital distribution, which has had significant effects on financial flows within recorded music. The supply of music is much larger and more diverse, and at the same time royalty payments are calculated and paid according to new principles. The so-called 'un-bundling' (Elberse 2010) has been one of the most important changes in this aspect. In the traditional album dominated market for CDs of the 1990's, consumers often bought songs that didn't immediately interest them, because they were part of an album. In industry parlance, such songs were sometimes called 'fillers' because their primary function was to fill up the album in order to optimize the profit from the album's hits that fans demanded. With digital distribution it became possible to buy individual songs and combine them into personal playlists with one's favourite tracks, without being 'forced' to buy the less interesting tracks. Overall, this led to a decline in revenue for digital tracks, when compared to CDs (Elberse 2010), but it also fragmented the individual listener's listening patterns because their listening was spread across far more artists, albeit with fewer tracks from each of them.

The flat-fee economic structure of streaming services has eliminated the economic cost of exploring new music for users. This potentially

leads to a greater diversity in listening patterns, but also has the effect of including tracks and artists with no audience appeal at all as part of the market. If users try out a particular song and evaluate it as being not good enough to spend time on again, this song remains a part of the market, even if it represents only marginal economic value. For the creators and performers of this particular song, the value of the song might be virtually non-existent. But aggregated across millions of songs on a streaming service it can still increase the spread.

Another consequence of the flat-fee basis of the streaming economy is that it increases the importance of market share. The only significant way to increase revenue in the overall streaming market is to recruit additional paying subscribers. Once users have paid for the service, the economy becomes a zero-sum game where increased music consumption does not increase revenue. This means that the release of a major hit record does not cause a spike in industry revenue, but only affects the distribution of revenue according to market share. As a consequence of this change, the promotion and marketing efforts of record companies and artists has changed from a single-sided effort to promote new releases with the direct aim of increasing revenue, to a multi-sided effort that includes collaboration with other record companies and streaming services to increase the number of paying subscribers, along with promotion of individual releases in order to increase market share.

Although a majority of musicians might experience the transition to streaming as an impediment to earning substantial money from recorded music, this does not necessarily mean that the economy of the recording industry as a whole is impaired by the transition. Drawing such a conclusion would be a so-called fallacy of composition. Analysing the effect of peer-to-peer services and piracy, Hammond asserts that *"The fallacy tells us that knowing something about the effect of a disruption at one level of the industry tells us nothing about the effect of the disruption at another level."* (Hammond 2016: 89). In this light, we need to understand the effects of the transition to music streaming at multiple levels and resist the urge to conflate analyses at different levels.

The transition to a streaming based economy has been the driver behind growth in the Danish recording industry as a whole. However, this growth does not necessarily trickle down to the individual artists. This dynamic can be understood using Brynjolfsson & McAfee's (2014) conceptualization of the phenomena of bounty and spread. On the one hand on-demand music streaming services like Spotify, Apple Music, Tidal, and the Danish telco-owned Yousee Musik (previously TDC Play), increase the economic bounty in the Danish recording industry. On the other hand, changes in consumption patterns and royalty principles on these services, combined with the lower market barriers-to-entry created by digital production and distribution, increase the extent of the spread of this wealth.

3 The role of the back catalogue

As shown earlier, the distribution of streams among artists in the Danish streaming market shows clear similarities to the 'blockbuster' or 'superstar' economy in the digital download market. However, with streaming the economic lifecycle of a song changes radically. When royalties are paid out as micropayments each time a song is played, this also means that some songs remain economically relevant a long time after their release. It is therefore important to analyse not only the concentration of streams, but also the balance between new and older releases.

Most record companies categorise releases according to a timeline from the first release of the song or album. Although there are different definitions (and sometimes intermediary or sub categories), the common denominator seems to be a distinction between *frontline* and *catalogue* releases. Sony Music defines the dividing line between frontline and catalogue as 18 months after release, which is therefore the categorisation I have used in this analysis.

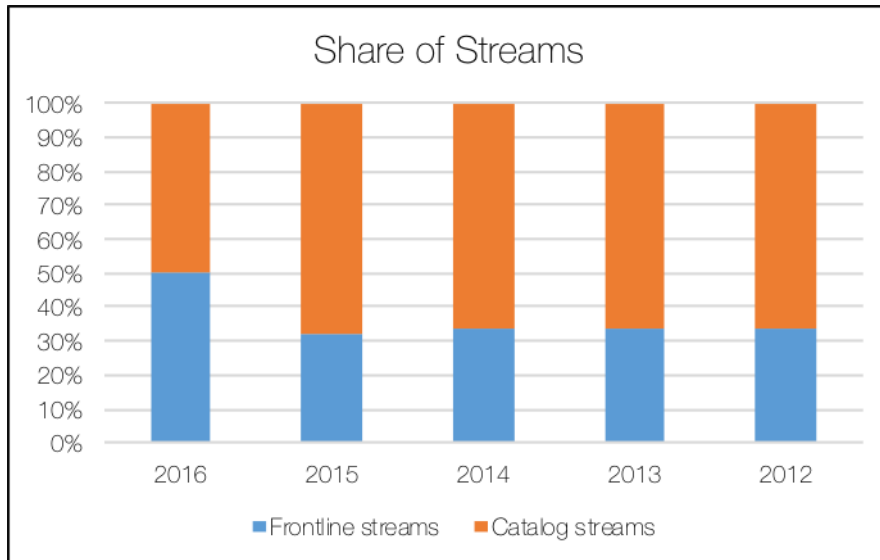


Figure 2: Frontline and catalogue share among Sony Music artists with at least 1,000 streams in Denmark

Among the artists that have been streamed at least 1,000 times in 2016, catalogue accounts for 49.6 per cent of all streams, and frontline accounts for 50.4 per cent. Even though 2016 represents the most even distribution between front line and catalogue streams in the sampled years, this alone speaks volumes about how longevity is a significant parameter in the streaming economy, but it becomes even clearer when viewing data across different percentiles as in figure 3.

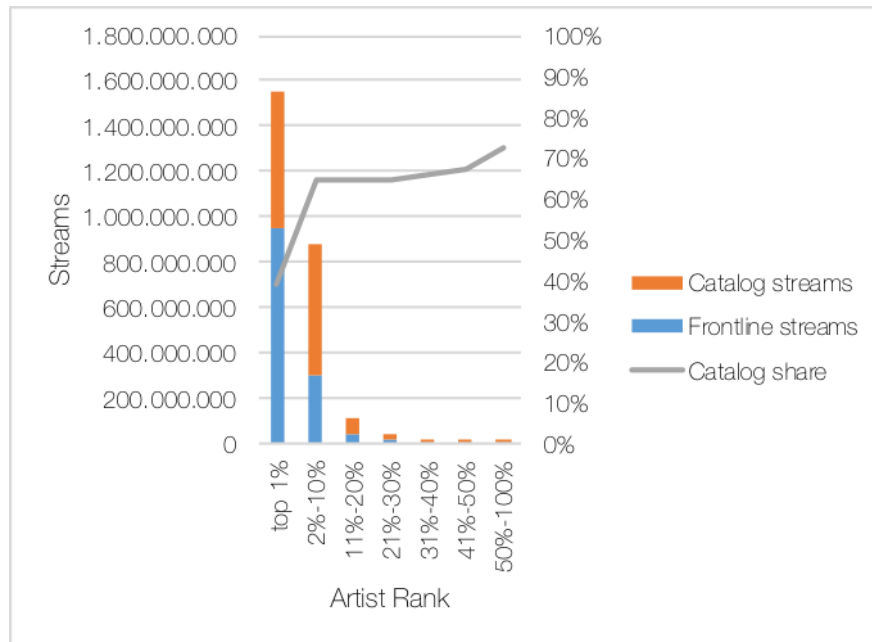


Figure 3: Frontline and catalogue streams among percentiles of Sony Music artists with at least 1,000 streams in Denmark in 2016

Here it is worth noticing that the only group of artists where front-line streams outnumbers catalogue is the top 1 per cent. Furthermore, the catalogue share increases gradually as we move down the long tail. This distribution points to an important complexity in analysing market concentration in the streaming market. Intuitive notions of the hierarchy of individual artists are often not correct. The spectrum just outside the top charts presents a particularly motley crew. Here we can find domestic mid-level and emerging artists ranked alongside international superstars and legacy artists. Although this might at first glance be seen as an indication of decreased polarization, it should more importantly be understood as an indication of the economic importance of longevity. What separates the stars from all the others is not so much the ability to attract many streams on the short term, but rather the ability to sustain

interest over a prolonged timespan. The international superstars and legacy artists just outside the top charts are often characterized by having no recent releases and/or appealing to listeners who are not core streaming users. In other words, when analysing the long tail of the music streaming economy, it is important to be aware that a significant portion of today's long tail might not be obscure niche music but rather yesterday's hits.

When trying to make sense of the conditions for Danish musicians, it is relevant to also analyse these parameters specifically for Danish artists. Figure 4 contrasts the back-catalogue share for domestic and international artists on the Danish market. It shows that the back-catalogue share is consistently higher among international artists. This is interesting in the light of the fact that the domestic share of recorded music revenue in Denmark has been consistently decreasing since the introduction of Spotify (Pedersen 2015: 85), which is in line with Brynjolfsson & McAfee's argument about the erosion of geographical barriers around local markets mentioned earlier. It is particularly interesting to note that the international dominance can be assigned to different factors at different positions in the long tail. For the top 1 per cent of artists, international frontline accounts for 43.3 per cent of all streams. For the rest of the market, the dominant source of streams is international back catalogue, which accounts for 43.2 per cent of streams outside top 1 per cent of artists. The market share for domestic artists is significantly higher among the top 1 per cent of artists – primarily because of significant popularity of domestic frontline releases.

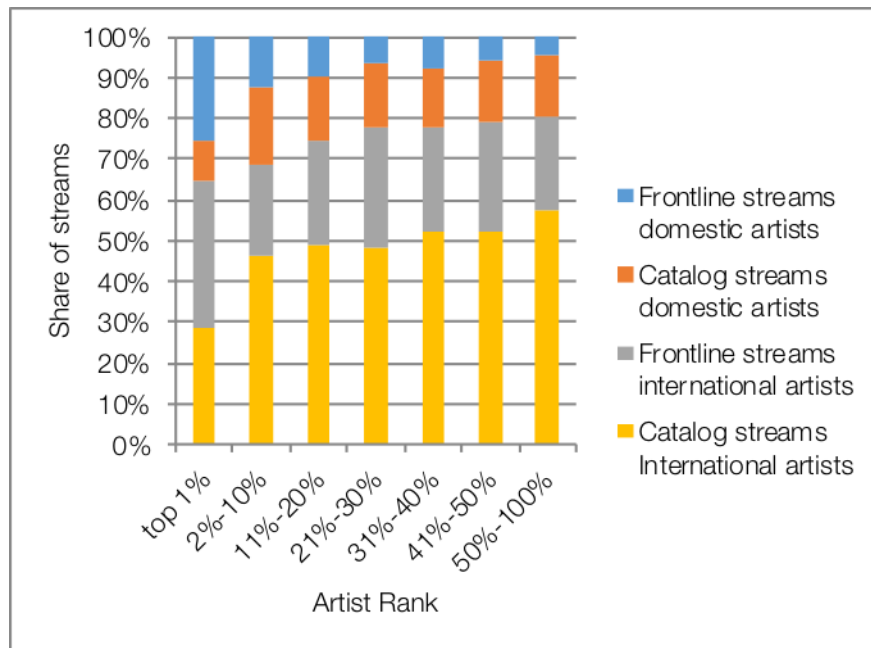


Figure 4: Frontline and Catalogue share for percentiles of domestic and international artists among Sony Music artists with at least 1,000 streams in Denmark in 2016

For the individual musicians there are several implications of new role of the back catalogue. One implication is that it adds to the spread in the streaming economy. Musicians releasing new music today are not only competing against an increasing number of new releases due to lowered entrance barriers to the market. They are also, to a large extent, fighting for attention with the stars of previous years. In addition to this, it highlights the difference in economic dynamics at play for different types of industry actors. Large intermediaries like major record companies (and streaming services) can rely on a vast back catalogue of music to provide financial liquidity to reinvest in future releases, whereas smaller actors like smaller independent record companies and individual artists (emerging artists in particular) cannot.

4 Consequences of the transition to music streaming

The effects of bounty and spread and the changing role of the back catalogue are central to understanding the economic consequences of the transition to a market for recorded music dominated by streaming. But it is also relevant to analyse the business model of music streaming within the framework of changing business models across the music industries – not only from the perspective of the old recording industry.

One example of how disruption of business models in the music industry affect the perception of the sustainability of music streaming is what Wikström calls 'option value blurring'. Building on the concept of 'option value' (Varian & Shapiro 1999), he argues that:

"In the old music economy, there existed a certain set of outlets whose purpose was to expose the artist to the audience, and a distinctively different set of outlets that was used to collect revenues from that audience. [...] Measured on an 'option value spectrum', these two sets have to be significantly distanced from each other, otherwise the consumers will not be motivated to spend money buying the same music they can get free via another medium. [...] improved connectivity has damaged the music firms' ability to control the flow of music and, of course, any other kind of digital information. As a consequence, numerous new media outlets have increased the fragmentation of the audience and blurred the distinction between promotion outlets and distribution outlets" (Wikström 2013: loc. 1422).

In a streaming-based music economy, option value blurring is present primarily because streaming services become the channel for music discovery as well as for consumption. Notably, there is no economic difference between when users listen as an act of discovery or as an act of listening to carefully selected favourites. There is, however, still an important difference between different ways of listening. The most popular playlists on a streaming service like Spotify are curated by the service itself (supplemented to a certain extent by playlists created by playlist services operated by major labels) and are changed continuously. Because of the high number of followers, these playlists are key

channels to create attention for a track. But because of the ephemeral nature of these playlists, a track's ability to generate a continuous flow of streams is closely related to the number of users that, upon discovery, add the track to their own personal playlists. This does not in itself guarantee a consistent flow of streams (user playlists can change or become irrelevant to the user), but it adds the track, at least temporarily, to the user's collection.

The option value blurring between channels of discovery and consumption becomes even more pronounced in the case of services based on user-generated content, primarily YouTube and Soundcloud. Where labels and artists have treated these platforms more or less as promotion channels, it is becoming increasingly clear that for many consumers, these are their primary source of music consumption. Combined with meagre payments to rights holders, this has sparked increased scepticism about what rights holders' interest organizations have labelled a 'value gap' (IFPI 2016).

Another example of option value blurring is the notion that the economic relationship between recordings and concerts has shifted. Around the turn of the Millennium a tour used to be viewed as an important way to promote the sales of a new album, and record companies would at times provide economic support for a tour. Now the release of an album (or increasingly often just an EP or a number of single tracks) is more often viewed as a precondition for touring by generating attention that can be used to promote sales of concert tickets, and in line with this record companies are changing their business models and contracts to different variations of the 360 deals, where the record companies (re-naming themselves 'music companies') administer or claim a share from artists' other revenue sources such as live, music publishing, and commercial partnerships.

Although this might seem to be a relatively unproblematic shift, it also represents a potential case of option value blurring between the different aspects of a musical career. Some of the middle layer musicians I have interviewed share similar stories along these lines: They are being told that their investment in recording and releasing a new album

doesn't need to be recouped in sales or from streaming because it will bring out more people to their shows. But they are also told that playing a concert is good promotion for their new album. And if they get a chance to synchronise their music in TV, movies, or commercials, they are again told that it can help grow their audience. The interesting thing about these examples is that it would probably be possible to find cases to support each of these claims. But if an artist accepts all of these models, there will be no area to monetize on the attention that is generated. This illustrates how the shift in business models in the Danish music business has increased the option value blurring, which emphasizes the need for individual artists to assess their business model to ensure that they have a strategy for both promoting and monetizing on their music.

5 Conclusion

This article has tried to contribute to the field of music business research with a fundamental exploration of the evolving issues within the Danish music streaming market. The article's main contribution is to provide a basic framework for a nuanced understanding of the way the transition to music streaming as the dominant form of consumption of recorded music affects the business models of recorded music.

I have analysed three primary themes in the transition to a streaming based economy in the recording industry: the conception of a 'Blockbuster' (Elberse) or 'Winner-takes-all' (Brynjolfsson & McAfee 2014), the changing role of the 'back catalogue', and the changing business models in the recording industry and the 'option value blurring' (Wikström 2013) that characterizes music in digital media.

Each of these themes embodies a duality in the consequences it has for conditions for Danish musicians. This duality can be understood using Brynjolfsson & McAfee's concepts of bounty and spread. On the one hand, the streaming market provides opportunities for growth. But on the other hand, the erosion of the barriers-to-entry to the marketplace has led to an increased competition for the listeners' attention. As the principles for remuneration from music streaming services are structured around micropayments for each time a listener listens to a track,

the increased competition for attention, in combination with the accompanying diversification of listening patterns, leads to a situation where the small increase in revenue does not provide a better economy for the individual musicians because it is spread out over a growing number of musicians. This effect is amplified because the back catalogue emerges as an important factor in the streaming economy. This further increases the spread, because contemporary musicians are not only competing for attention with each other, but also with past generations of musicians.

These findings are relevant to understanding how the recording industry can experience growth while some musicians argue that streaming is not a sustainable economy. Although other aspects like audience demographics and music trends can influence the economies of individual musicians, there are also important aspects that can be ascribed to the changing nature of the business model behind music streaming.

This article seeks to nuance the understandings of the challenges that arise from the transition to music streaming. One notable point is that we should challenge the assumption that the reason that streaming provides a meagre economy for some musicians can only be that they are being short-changed by record companies or streaming services. At least some of these challenges should be ascribed to fundamental features of the digital networked economy.

6 References

- Anderson, C. (2006) *The Long Tail: How Endless Choice Is Creating Unlimited Demand*, Random House Business Books, London.
- Benkler, Y. (2006) *The Wealth of Networks: How Social Production Transforms Markets and Freedom*, Yale University Press, Yale.
- Brynjolfsson, E. & McAfee, A. (2014) *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies*, W. W. Norton & Company, London and New York.
- Elberse, A. (2010) "Bye-bye Bundles: The Unbundling of Music in Digital Channels", *Journal of Marketing* vol. 74, pp. 107-123.

- Elberse, A. (2013) *Blockbusters: Why Big Hits-and Big Risks-are the Future of the Entertainment Business*, Faber & Faber, London.
- Hammond, R. G. (2016) "The Fallacy of Composition and Disruption in the Music Industry." in *Business Innovation and Disruption in the Music Industry*, eds. P. Wikström & R. DeFillippi, Edward Elgar Publishing, Cheltenham.
- IFPI (2016) *Global Music Report*, IFPI, London.
- IFPI (2017) *Musikselskaber 2016*. Available at: <http://www.ifpi.dk/publikationer/Musikselskaber2016.pdf> (accessed 6 April 2017).
- Kjær, B. (2015) "Musikere får ikke del i pladeselskabernes fremgang", *Politiken*.dk, 6 January. Available at <http://politiken.dk/kultur/musik/ECE2502822/musikere-faar-ikke-del-i-pladeselskabernes-fremgang/> (accessed 31 August 2016).
- Kvale, S. (1997) *Interview: En Introduktion Til Det Kvalitative Forskningsinterview*, Hans Reitzels Forlag, København.
- Mulligan, M. (2015) *Awakening: The Music Industry in the Digital Age*, MiDIA Research, London.
- Nordgård, D. (2016) "Lessons From the World's Most Advanced Market for Music." in *Business Innovation and Disruption in the Music Industry*, eds P. Wikström & R. DeFillippi, Edward Elgar Publishing, Cheltenham.
- Pedersen, R. R. (2014) *Music Streaming in Denmark: An Analysis of Listening Patterns and the Consequences of a 'per User' Settlement Model Based on Streaming Data From WiMP*. Available at: http://www.koda.dk/fileadmin/user_upload/docs/Analysis_Music-Streaming-In-Denmark_2014.pdf (accessed 31 August 2016).
- Pedersen, R. R. (2015) *Ad Hoc Entrepreneurs: Middle-layer Musicians and the Contemporary Media Landscape*, PhD dissertation, Department of Communication, Business and Information Technologies, Roskilde University.
- Varian, H. R. & Shapiro, C. (1999) *Information Rules: A Strategic Guide to the Network Economy*, Harvard Business School Press, Cambridge/Mass.
- Vuorela, M. (2013) "Musikere: Mellemlaget Dør I En Digital Verden", *Politiken*.dk, 5 February. Available at: <http://politiken.dk/kultur/musik/ECE1888661/musikere-mellemlaget-doeer-i-en-digital-verden/> (accessed 31 August 2016).
- Wikström, P. (2013) *The Music Industry: Music in the Cloud*, 2nd ed., Polity, Cambridge/UK.
- Wikström, P. & DeFillippi, R. (eds.) (2016) *Business Innovation and Disruption in the Music Industry*, Edward Elgar Publishing, Cheltenham.

Blockchain: a new opportunity for record labels

Opal Gough⁴

Abstract

Blockchain technology's decentralised nature offers the music industry opportunity to develop an international industry database for musical compositions and sound recordings to streamline processes, remove inefficiencies and improve cash flow. A review of current literature with reference to blockchain architecture case studies aims to identify the factors affecting the engagement of major record labels in this transformative solution to the industry's issues.

Keywords: Blockchain, music industry, record labels, music rights database

1 Introduction

In the past, music industry stakeholders attempted to develop standardised industry identifiers and registers that offer unique records for music releases without success (Rethink Music Initiative 2015: 14). The purpose of standardisation is to reduce errors, provide revenue transparency and reduce opacity for royalty transactions. The intangible nature of royalties diminishes transparency (Bacache-Beauvallet, Bourreau & Moreau 2015: 7) and places heavy reliance on trusted third-parties to ensure accurate distribution of revenues to rights holders. Blockchain can be used "for cryptocurrencies ... [and] to register, confirm, and transfer any kind of contract and property" (O'Dair & Beavan 2017: 473). Blockchain technology offers an opportunity to develop an internationally available decentralised database for use by record labels and music publishers to maintain accurate records of composition and recorded music data with the potential to act as a conduit for royalty payments to rights holders as the platform matures.

⁴ **Opal Gough** is currently studying a Master of International Music Business at Box Hill Institute, Melbourne, Australia. As part of the research requirement of the Masters, Opal is researching critical success factors in the longevity of independent record labels in Australia. After completing a Bachelor of Business majoring in accounting and business modelling, Opal qualified as a chartered accountant in Australia and has worked for 17 years in public practice in both big four and smaller boutique firms. (opal@goughy.org).

While technology start-ups have rushed to develop such blockchain solutions, the absence of major music publisher and label involvement indicates that current threats to their existing business operations or perceived benefits are not yet sufficient enough to warrant direct engagement. For a blockchain solution to have an effective impact on the industry, it must achieve a critical mass of industry collaboration and buy in. Consideration of how existing supply chain and business infrastructures may interact with a blockchain, issues of accurate metadata collation, storage and archival, and questions around data security and administration and management control of the blockchain must be addressed. Major stakeholders in the music industry, such as the major record labels, are well placed to ensure blockchain solves existing industry issues and supports a robust future for the music ecosystem.

2 Business issues/problems

With *"lack of an industry-wide system for tying usage to ownership"* (Rethink Music Initiative 2015: 4) identification of rights holders for the correct payment of royalty monies can be a time consuming and difficult process. Three distinct issues have been identified with the recorded music industry: copyright data, speed of payments and opacity of the value chain (O'Dair & Beavan 2017: 473). Record labels have developed in-house databases of composition and recording data with associated copyright ownership details, but this information is neither entirely publicly available, nor necessarily accurate.

There are *"numerous databases, none entirely comprehensive; particularly for co-owned works, information can actually vary between one database and another, with no central authority to settle conflicts"* (O'Dair & Beavan 2017: 472). Metadata standards have been developed which identify writers, recording artists, the sound recording and composition, but *"there is neither uniform use of these codes, nor an authoritative database mapping them to each other"* (Sellin & Seppala 2017: 14). Metadata in digital recordings has the potential to extend beyond copyright information to lyrics, video and artist biography (O'Dair &

Beavan 2017: 473), but achieving this potential requires coordination and cooperation within the industry.

The International Confederation of Societies of Authors and Composers (CISAC), a non-government not-for-profit organisation funded by the collection societies that are its members, has developed international databases and standards to rectify these problems with the International Standard Musical Work Code (ISWC) and the International Standard Recording Code (ISRC) which apply "*globally unique identifiers*" (International Confederation of Societies of Authors and Composers, 2015) as a means to "*document, license, collect and distribute royalty payments for protected works*" (CISAC 2015). Data entry by members to obtain allocation of these codes requires access to centralised databases maintained by CISAC. Interconnection between member society databases and the ISWC and ISRC databases is currently in development to provide automatic information exchange between the parties (ibid.).

The Global Repertoire Database (GRD) project, initiated by several large performing rights associations (PROs), was abandoned after one of its major financial contributors, the American Society of Composers, Authors and Publishers (ASCAP), withdrew its support. Increasing losses incurred during the set-up phase and possible disputes over administration of the catalogue and ownership of the underlying data are claimed to be responsible for the failure of the project (Milosic 2015).

Existing DDEX (Digital Data Exchange) and CWR (Common Works Registration) international standard protocols for recordings and compositions, supported by all major record labels, music publishers, PROs and digital service providers (DDEX 2012), have been developed to allow for smooth recording and composition data interchange (Tse 2017b) throughout the digital supply chain.

Where there is inaccurate licensing information, unattributable payments are held in escrow by collection agents to later be distributed amongst record labels on a market share basis (Rethink Music Initiative 2015: 16). These unattributable payments are considered 'black boxes' resulting from:

- *"the inability to identify rights holders despite payments made for the use of their compositions"*
- *the lengthy time required for filing domestic and ultimately international copyrights, often begun only when a recording is actually released*
- *multiple claims for the same rights exceeding 100% of ownership, resulting in indefinite disputes*
- *international collaborations with less than all creators asserting their rights*
- *international legal inconsistencies regarding what type of performances result in payments, and*
- *the slow and often manual processes to report usage and clear payments under international reciprocal agreements"* (Sellin & Seppala 2017: 17).

Whilst published estimates of the amount held in black boxes globally are not available, the significance of the issue has been raised in several studies (Rethink Music Initiative 2015: 16) with causes identified as the replication of databases and manual matching between these databases (figure 1) and *"inconsistent use of identification codes and metadata"* (Sellin & Seppala 2017: 15). Paperchain.io, a rights data exchange platform, estimates that just under 10 percent of worldwide music royalties are unidentified (Paperchain.io 2017).

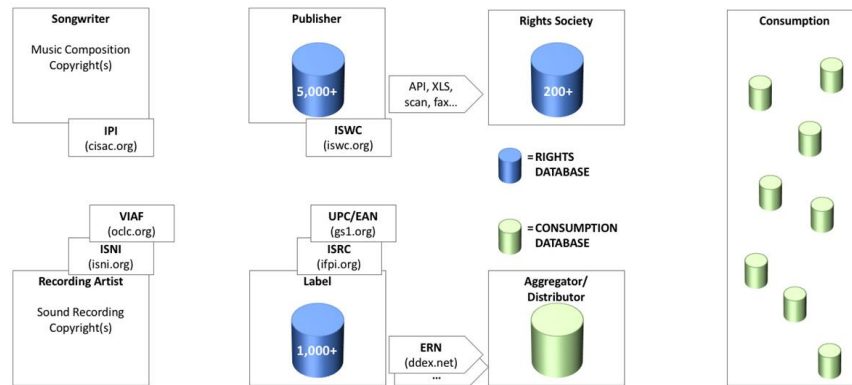


Figure 1: Thousands of incompatible databases, multiple ID and metadata standards.
Source: Sellin & Seppala 2017: 15.

Commercial databases are available, but are centralised, not widely used, are often inefficient and open to data integrity breaches (Sellin & Seppala 2017: 15-16). Use of a centralised database provides for a single point of failure (Silver 2016: 3) and a single point of control, whereas use of a decentralised database can avoid these issues and provide an *"efficient process for sharing comprehensive rights data"* (Sellin & Seppala 2017: 16). A process that provides, in the first instance, for *"systematic adherence to rich metadata standards, scalable systems for the growing pace of digital music releases"* (Sellin & Seppala 2017: 16) and potentially *"detailed per stream reporting, and a willingness to share rights and reporting data openly with others in the industry"* (ibid.). The UK's Performing Rights Society estimated in 2012 that a single comprehensive rights database would allow *"efficiencies and financial savings to be achieved industry-wide -equivalent to 0.7-1% of global royalty collections"* (ibid.: 17).

3 Blockchain technology

Considered a *"foundational technology"* (Iansiti & Lakhari 2017) rather than a digital disruption, blockchain is heralded as the technology likely to be responsible for the impending fourth industrial revolution; a revo-

lution affecting our social and economic structures by changing the way organisations create and capture value (ibid.). Australia's CSIRO defines a blockchain as:

"both a database [or ledger] recording transactions between parties, and also a computational platform to execute small programs (called 'smart contracts') as transactions. A blockchain is a distributed database, replicated across many locations and operated jointly by a collective. Blockchains transactions can support services for payments, escrow, notarisation, voting, registration, and process coordination" (CSIRO 2017b: i).

Each time a transaction occurs, the change is checked by a processing node that verifies the validity of the change against set protocols (proof of work), and at a specified time period, the blockchain is updated permanently and timestamped (ibid.: 3). These entries are locked and form the next block which updates all copies of the blockchain simultaneously. One way hashes are used as a unique digital fingerprint, which can be digitally signed if the author wishes, but the fingerprint cannot be reversed. This gives the transaction integrity that cannot be disputed.

The entire blockchain is then fingerprinted and locked, forming a cryptographic connection with the previous fingerprint that can be traced back in the distributed ledger to the genesis of the blockchain (ibid.). Interference with the blockchain will be visibly evident (ibid.) and will be raised against the validation protocols to check for authenticity. If these protocols are not met, the changes will not update the blockchain.

4 Blockchain and the recorded music industry

Blockchain development of an ownership and rights database could provide many benefits to the recorded music industry including risk mitigation and cost reduction. The implementation of this technology could improve cash flows and the bottom line of associated businesses that rely on the data. Ownership and rights information is currently fragmented in the global music industry creating an attribution gap that effects credits to the contributors to music and payments to rights hold-

ers (Rethink Music Initiative 2015: 21). Without one comprehensive database, accessible by labels and publishers, providing a complete record of these contributions and rights (O'Dair 2016: 9), industry inefficiencies will not be overcome.

A comprehensive database could be added to incrementally, so that over time it becomes complete (ibid.). This is the intention of MUSE, the blockchain 'start up experiment' (European Union Intellectual Property Office 2018) network that supports the PeerTracks music streaming platform. The blockchain is intended as a global public database providing the means and source to capture and calculate user attention per second with automatic distribution of royalty payments in accordance with smart contract data (MUSE Inc 2017). However, its primary goal is to monetise the exchange of digital data much like Bittunes, a public sharing and earning blockchain platform aimed at rewarding both independent artists and fans for collectively contributing to a distributed music distribution channel (Bittunes.org 2018b).

Blockchain provides a reduced total cost of IT ownership. Individual processing nodes in a decentralised blockchain database can have periods of outages without affecting the integrity of the data stored on the blockchain. This reduces IT infrastructure costs due to the reduction in availability service levels required to maintain the system as a whole (CSIRO 2017b: 40).

The integrity and certainty of data in the blockchain is assured by the verification and immutability of the data contained in the blocks (Sellin & Seppala 2017: 33). Risks from disputes relating to contributions to musical works could be mitigated by deferring to the data in the blockchain, rather than wading through the highly fragmented existing system of databases (Rethink Music Initiative 2015: 21), to ascertain the correct information which can reduce dispute resolution time and associated costs. It is likely that, at least initially, disputes will be resolved by the courts as the judicial system develops a precedent for accepting the credibility of the data contained in blockchains (O'Dair 2016: 18).

For any leading developer of blockchain in the music industry, opportunities for brokerage business models may arise in the future, along

with implementation of smart contracts for immediate distribution of performance royalties; however, these are secondary to the foundational copyright database development.

5 Limitations of blockchain

Some of the limitations of blockchain are yet to be identified due to the immaturity of commercial testing on a larger scale. However, scalability has been identified as an issue owing to the potential popularity and resulting high transaction demands which may constrain the future performance of blockchain with system congestion (CSIRO 2017a: V).

Blockchain is not suitable for storing data at high volumes or velocity because the data is too large to be practically copied by each node and processing requirements for validation and verification of a block are too high (CSIRO 2017b: 32). This indicates that presently blockchain isn't the answer to tracking use of copyright on a pay for play basis. MUSE claims a transaction rate of 100,000 per second (MUSE Inc 2017) with public release of PeerTracks intended in early 2018 (PeerTracks Inc 2018) but will require considerable commercial uptake to test its scalability under realistic loads.

The decentralised nature of blockchain extends to the control and governance of blockchain systems. For MUSE, members who own vested MUSE tokens (much like voting shares in a listed company) can vote for 'witnesses' that act as the governing body, maintaining and updating the blockchain (MUSE Inc 2017). Evolutionary management of the software and operational infrastructure of blockchain and the blockchain systems (CSIRO 2017b: 44) can be impeded by such decentralised control thus reducing its ability to meet future needs of users. Policies addressing responsibility for blockchain management, maintenance and administration and the associated ongoing costs must be established to protect the integrity of the platform.

Any solution to the existing fragmented contribution and ownership recording systems will require a change in business model and processes. This will necessitate "*collaboration between music industry stakeholders*" (Sellin & Seppala 2017: 19), and an understanding that "*com-*

plete ownership of information is highly complex and often in flux" (O'Dair 2016: 10), especially for popular recordings, which will place additional administrative pressure on artists and managers (ibid.). Such collaboration is already underway with a joint undertaking between IBM, the Society of Authors, Composers and Publishers of Music (SACEM) in France, the American Society of Composers, Authors and Publishers (ASCAP) and PRS for Music (UK) to develop a blockchain that will *"match, aggregate and qualify existing links between ISRCs and ISWCs to confirm correct ownership information and conflicts"* (ASCAP, SACEM & PRS 2017). Trust in the source of ownership data and the verification process is the crucial foundation of any blockchain that employs smart contracts for automatic royalty distribution.

6 Case Studies

Public blockchains, MUSE and Bittunes, require entry of metadata at the time a song is uploaded to the platforms which includes ISWC and ISRC codes (MUSE Inc 2017; Bittunes.org 2018a), as does dotBC as part of the minimum viable data requirement for distribution (Rogers 2016a). These codes, the source of which is the centralised database managed and maintained by CISAC, contain rights holder information. Bittunes cross-references the rights holder data input at the time of upload to the ISWC and ISRC database to ensure there are no existing rights agreements that contradict the data input (Bittunes.org 2018a) and MUSE also requires these codes along with details of the permissions manager (person who has permission to change meta-data may be a label, legal representative etc.) (MUSE Inc 2017).

Ujo Music (Ujo) initially devised an Ethereum blockchain platform that served as a direct conduit between the artist and the user to streamline payments in accordance with data contained in smart contracts, which could *"be extended to incorporate a wide range of additional functionality: programmatic contracts, variable pricing [and] payment routing"* (Ujo Music 2018). However, during blockchain development Ujo realised metadata was an issue and designed a split in the data, developing a storage layer blockchain for metadata in addition to

the logic layer of the existing Ethereum blockchain containing smart contract data (de la Rouviere 2017). The storage layer applies the COALA IP protocol to the metadata (Ujo Music 2016); a free and open-source protocol of the *"minimum viable set of data for intellectual property licensing"* (GitHub Inc. 2018), which will allow Ujo to *"pick up where the 'Global Repertoire Database' left off and effectively become plumbers for the entire music industry"* (Ujo Music 2016). Ujo has not confirmed how the metadata will be verified.

Unlike other blockchain start-ups, the goal of dotBC is to address the current vulnerability of the music ecosystem by developing a framework where metadata completion for a song acts as a key to unlock access to the music that is *"music separated from its dotBC container becomes unplayable on modern devices and compliant digital service providers"* (Rogers 2016c). Though dotBC has not expanded on how this can be achieved. Phase 2 of dotBlockchain's (dotBC) efforts to build a framework for a more robust music ecosystem, is based on a concentric ring architecture blockchain platform (figure 2) where *"different participants work together adding metadata, linking media and bridging systems together in a very equal way"* (Tse 2017a).

The purpose is to develop a decentralised interoperable framework, owned and managed by the music industry as a whole rather than specific businesses that draws on existing centralised databases of rights holders all linked to the cloud (Rogers 2016c). This link allows metadata to be shared on a blockchain in a manner that retains the proprietary business rules of those contributing rights holders whilst sharing public information that allows for interoperability and innovation (ibid.). The dotBC blockchain makes *"all data managed, replicated and synchronised through interoperable plugins and a common format: dotBC"* (ibid.).

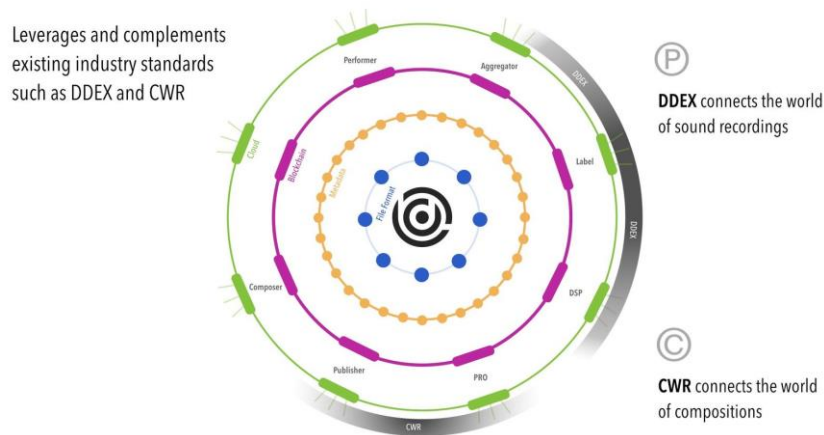


Figure 2: dotBlockchain's concentric ring architecture. Source: Tse 2017.

The format, dotBC, is essentially a zip (bundled) file containing the existing formats currently in use (.wav, .mp3, .aiff) hardcoded with minimum viable data (MVD) (Rogers 2016c). The MVD provides sufficient publicly accessible information, such as the contact details of one artist or one publisher, the ISRC and ISWC (Rogers 2016b), to which enough layers can be added to make the information persistent, provided a shared ledger or database is used to read the information (Rogers 2016c). While dotBC makes use of existing participant infrastructure and standard protocols, such as DDEX and CWR (Tse 2017b), user level authority and song level authority will make use of existing relationships within the current ecosystem by calculating a 'dotBC score' *"based on key attributes and linkages across the dotBC environment that will allow for any participant to determine easily how healthy the song file, metadata, and ownership information is relative to other dotBC bundled files in the system"* (Rogers 2016a).

This trusted authentication system will be based on a points system requiring a two-factor identification, social media validation, reciprocated links to other authorised parties and a registration or identifier number, such as ISO, for the user level authority, and for song level authority

the MVD attached to the song on registration plus use of identifiers (ISRC, ISWC etc.) and tagging of other associated partners, such as publishers and performing rights organisations, through plugins will give truth to the song metadata (ibid.). This scoring system gives plugin partners roles as gatekeepers of the platform (ibid.).

7 Impact on other stakeholders

A trusted public record of a song's attributes, contributors and copyright owners would have many positive effects on music industry participants, including publishers, labels, artists, collection agencies, licensees and digital music service providers. The rate at which artists and copyright owners could be identified would decrease the lag time often criticised as the cause for delayed royalty payment (Sellin & Seppala 2017: 7). Fast identification could also provide *"additional visibility and credibility as [artists] pursue further contracts and other musical employment opportunities"* (ibid.: 19). The amount of royalties held in black boxes may also reduce, increasing royalty distribution to rights holders, including publishers and artists. This could result in increased cash flows and an economically stronger creative industries economy.

Licensees of music, including digital music service providers, are currently required to report in a variety of formats to record labels and publishers (Rethink Music Initiative 2015: 23). This represents an inefficiency which has a direct impact on the administrative costs, and resulting profits, of these stakeholders. Confirmation of ownership and licensing information for music composition and sound recording is critical to the various stakeholders the industry and a single decentralised database would be an asset to the development of digital music services throughout the world. MUSE offers flexibility to users, including streaming services, to upload spin and play data, feed data through the MUSE blockchain database and use the instant payment rails to flow MUSE currency directly through to rights holders without transaction fees (MUSE Inc 2018). Theoretically this shifts the burden of royalty distribution from licensees to a third party, however it does not overcome the

practical inefficiencies of different reporting formats. MUSE also intends to provide a facility for automatic content license facilitation (MUSE Inc 2017) that would enable companies like Facebook and YouTube to automate the enforcement of contracts for works published on its platforms (Aitken 2016) which has the potential to dramatically improve returns to rights holders. Facilitation of licensing processes was also an anticipated outcome of the GRD project (Milosic 2015).

Stakeholders in positions of control within the existing music industry structure, such as collective management organisations, may anticipate their own redundancy with the advent of a single comprehensive database, which may make them resistant to its implementation (O'Dair & Beavan 2017: 476). This may change the role these organisations play within the industry and may also impact the adoption of blockchain within the industry, and a *"truly networked record industry will require co-operation between all stakeholders"* (ibid.). The IBM and PRO project indicates a shared commitment to achieving this and streamlining the current system for the benefit of the music industry. Once again, however, it is the collection agencies that are driving this project, not the major labels or publishers.

Rectification of errors in copyright information may occur more efficiently because all users share a copy of the blockchain. However, as consideration must be given to preserving the *"long-term [metadata] authenticity and accessibility as evidence"* (Lemieux 2016: 4) under applicable laws of evidence, accepted principles, standards and techniques to ensure this must be built into the blockchain (ibid.: 23). While the point systems of dotBC attempt to meet this criterion (Rogers 2016a), intellectual property stakeholders must decide if such security policies and parameters are sufficient to safeguard the legitimacy and validity of data.

8 Integration of blockchain into existing infrastructure

Blockchain, as a replacement for existing contributor and rights holder database formats, must be simple to absorb and adopt within the in-

cumbent ecosystem of the label and provide similar functionality (Iansiti & Lakhani 2017). Development of organisation specific applications will be necessary to achieve this but must be considered in the context of the existing components of the IT system.

Design of the blockchain system will consider whether the blockchain is a stand-alone system that replaces an existing database or works in conjunction with an existing database and infrastructure. The practical limitations of data volumes prescribe the need to determine and standardise the fields to be stored in the blockchain database that give requisite information to users of the database. This will impact the block size and the block frequency (CSIRO 2017b: 36), as recognised by the design considerations of separate logic and storage layers by Ujo and dotBC's design that allows existing databases to directly link to the blockchain via a cloud layer (see figure 2) using MVD attached to each song.

To achieve effective design in the blockchain system a software development resource with blockchain design and integration experience should be employed. This will also aid in mitigating risk. Appropriate integration must involve expertise from multiple domains (CSIRO 2017a: V), and as issues of fraud and cyber security controls are involved, IT professionals must be highly aware of "*accounting, audit, fraud control [and] law*", and the "*typical risks and limitations*" (ibid.: V). To maintain trust in provenance and authenticity of data, archival science methods and techniques must be applied to metadata and digital signatures to ensure these components are not fragmented from the songs themselves (Lemieux 2016).

Interoperability, the ability to share and access data (CSIRO 2017b: 50), between users leveraging the blockchain itself is paramount. The music industry as a whole must agree on a standardised format definition for the metadata information contained on the blockchain such that all stakeholders are able to consume the data and extract identical semantics. *The "International Organisation for Standardisation (ISO) has appointed Standards Australia as the Secretariat for the International Blockchain Standards, with the responsibility of establishing globally*

recognised definitions for the technology" (CSIRO 2017a: 4). The aim is for blockchain to provide global consistency and integrity to data (ibid.: 3), ensuring that it can be relied upon for decision making purposes. dotBC's application of DDEX and CWR standards to the blockchain aims to achieve this within the broader context of the digital supply chain, and the '.bc' file system attempts to provide access regardless of the individual audio file format.

Software development resources, along with in-house staff with domain knowledge who are subject matter experts, will be responsible for development of permission and authentication protocols for the blockchain, along with an internal user interface that will allow for data updates to be published to the blockchain automatically or otherwise, and a business process template describing how the data will be published to the blockchain and maintained.

Issues of data security and the risk of poisoned illegal content are relevant in public blockchains. Strong cryptographic mechanisms must be in place to *"identify parties and check their authority to add new transactions"* (ibid.: 3). Permissionless and permissioned databases offer different mechanisms to control access by these parties to the blockchain:

"for permissioned networks, all the parties who access the network know each other and are already trusted...and require less cryptographic validation systems and display fewer of the open benefits of transparency that some tend to think are inherent in blockchain" (Silver 2016: 3).

Permissioned networks may work best for the recorded music industry to ensure quality and integrity of data. To provide public access while retaining data integrity, it may be appropriate to have a permissioned network to write to the blockchain and a permissionless network to read from the blockchain. For MUSE as a permissionless public blockchain, any member may edit metadata for a song, but acceptance of the edit can only be given by the manager of the metadata identified upon initial data entry and validated by whitelisting (European Union Intellectual Property Office 2018). Public and private permissions levels

form part of the dotBC architecture to keep partners "*business rules private, but data side public*" (Rogers 2016b).

Field trials should be undertaken to demonstrate how the system will behave in best case scenarios and also in scenarios that are both anticipated and unanticipated (CSIRO 2017b: 38), such as poison by illegal content (ibid.: 43), before and after integrating into the existing IT infrastructure. For initial testing purposes, dotBC has procured access to over 65 million songs and associated metadata through a collaboration with SongTrust, SOCAN, MediaNet, FUGA and CD Baby (Tse 2017a) to test the framework at a commercial load.

9 Conclusion

The decentralised nature of blockchain technology offers the music industry an opportunity to create "*collaborative, co-operative, and collective business models in the 'new' music industries*" (O'Dair & Beavan 2017: 473). To develop an international whole of industry database for compositions and sound recordings, one that can streamline processes, remove identified inefficiencies within the industry and improve cash flows of royalties, it is critical that development and integration of the blockchain be interoperable to ensure the required functionality, data integrity and support from all stakeholders in the industry.

Record labels are in the position to lead the industry in the early stages of this transformative technology, positioning the music industry at the helm to take advantage of blockchain technology as it matures and to draw from other industries to make the music eco-system as robust and innovative as possible. Many factors affect the engagement of major labels in the race to develop a blockchain architecture, but what remains in question is the tipping point at which the major record labels will be ready to devolve their existing control structure.

10 References

Aitken, R. (2016) "MUSE: Leveraging Blockchain Technology To Revolutionize Music Industry". Available at: <https://www.forbes.com/sites/rogeraitken/2016/01/23/muse->

[leveraging-blockchain-technology-to-revolutionize-music-industry/3/#373b7db21f48](#)
(accessed 22 February 2018).

ASCAP, SACEM & PRS (2017) "ASCAP, SACEM, and PRS for Music initiate joint blockchain project to improve data accuracy for rightsholders". Available at:
<http://www.cisac.org/Newsroom/Society-News/ASCAP-SACEM-and-PRS-for-Music-press-release-ASCAP-SACEM-and-PRS-for-Music-initiate-joint-blockchain-project-to-improve-data-accuracy-for-rightsholders> (accessed 21 February 2018).

Bacache-Beauvallet, M., Bourreau, M. & Moreau, F. (2015) "Cheating and 360-Degree Contracts in the Recorded Music Industry". Available at:
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2553999 (accessed 27 October 2017).

Bittunes.org (2017) "An independent digital music market". Available at:
<http://www.bittunes.org/general-explanation/> (accessed 22 February 2018).

Bittunes.org (2018a) "Music Makers". Available at: <http://www.bittunes.org/music-makers/> (accessed 22 February 2018).

Bittunes.org (2018b) "What is the philosophy that drives us?". Available at:
<http://www.bittunes.org/philosophy/> (accessed 21 February 2018).

CSIRO (2017a) Distributed Ledgers: Scenarios for the Australian economy over the coming decades, CSIRO, Canberra.

CSIRO (2017b) Risks and Opportunities for Systems using Blockchain and Smart Contracts, CSIRO, Canberra.

DDEX (2012) "Current DDEX Members". Available at: <http://www.ddex.net/current-ddex-members> (accessed 2 March 2018).

de la Rouviere, S. (2017) "Ujo x RAC: Under the Hood - The Future of Licensing". Available at: <https://blog.ujomusic.com/ujo-x-rac-under-the-hood-the-future-of-licensing-d4f38e2efabd> (accessed 18 February 2018).

European Union Intellectual Property Office (2018) "Blockchain and IP: Managing Music Rights, Cedric Cobban, PeerTracks". Available at:
<https://www.youtube.com/watch?v=hqMrRXhcLvw> (accessed 22 February 2018).

GitHub Inc. (2018) "COALA IP Protocol". Available at:
<https://github.com/COALAIP/specs/blob/master/presentations/COALA%20IP%20-%20short.pdf> (accessed 1 March 2018).

Iansiti, M. & Lakhani, K. R. (2017) "The Truth About Blockchain", Harvard Business Review, vol. 95, no. 1 (January–February 2017), pp. 118-127.

- CISAC (International Confederation of Societies of Authors and Composers) (2015) "International Identifiers". Available at: <http://www.cisac.org/What-We-Do/Information-Services/International-Identifiers> (accessed 28 October 2017).
- Lemieux, V. L. (2016) Blockchain Technology for Recordkeeping: Help or Hype?, Vancouver, The University of British Columbia.
- Milosic, K. (2015) "GRD's Failure", Berklee College of Music Music Business Journal, August 2015. Available at: <http://www.thembi.org/2015/08/grds-failure/> (accessed 26 March 2018).
- MUSE Inc. (2017) "MUSE FAQ". Available at: <http://museblockchain.com/faq/> (accessed 21 February 2018).
- MUSE Inc. (2018) "Offload your main expenses to the Blockchain". Available at: http://museblockchain.com/wp-content/themes/muse/images/ways_for_SP_to_use_Muse.jpg (accessed 1 March 2018).
- O'Dair, M. (2016) Music On The Blockchain Report No. 1, London, Middlesex University.
- O'Dair, M. & Beaven, Z. (2017) The networked record industry: How blockchain technology could transform the record industry, London, Middlesex University.
- Paperchain.io (2017) "A royalty black box solution". Available at: <https://www.paperchain.io/#paperchain-products> (accessed 10 March 2018).
- PeerTracks Inc. (2018) "Free Music Streaming Powered by Music Blockchain MUSE". Available at: <https://peertracks.com/> (accessed 23 February 2018).
- Rethink Music Initiative (2015) Fair Music: Transparency and Payment Flows in the Music Industry, Boston, Berklee Institute of Creative Entrepreneurship.
- Rogers, B. (2016a) "Building Identity, Authority, & Trust Into Songs — One Link at a Time" (dotBC Update #6). Available at: <https://medium.com/dotblockchainmusic/building-identity-authority-trust-into-songs-one-link-at-a-time-b5dde8a74613> (accessed 2 March 2018).
- Rogers, B. (2016b) "dotBlockchain Music Open Source Project Overview Alpha Release Update". Available at: <https://medium.com/dotblockchainmusic/the-dot-blockchain-music-project-alpha-release-update-4-20f40551d091> (accessed 3 March 2018).
- Rogers, B. (2016c) "The dotBlockchain Music Project Presentation for the MIT Enterprise Forum Dec 6th 2016". Available at: <https://www.youtube.com/watch?v=qTqsJutxfuk> (accessed 1 March 2018).
- Sellin, D. & Seppala, T. (2017) Digital Music Industry – Background Synthesis, Helsinki: Research Institute of the Finnish Economy.

Silver, J. (2016) Blockchain or the Chaingang? Challenges, opportunities and hype: the music industry and blockchain technologies, Glasgow, Centre for Copyright and New Business Models in the Creative Economy (CREATE).

Tse, C. (2017a) "dotBC Architecture Preview". Available at: <http://dotblockchainmusic.com/technology/> (accessed 1 March 2018).

Tse, C. (2017b) "Technology Architecture Overview Video". Available at: <https://medium.com/dotblockchainmusic/traditional-music-industry-approach-vs-whats-coming-155db689a408> (accessed 1 March 2018).

Ujo Music (2016) "Emerging from the Silence". Available at: <https://blog.ujomusic.com/welcome-back-1addcc06bcc6> (accessed 28 February 2018).

Ujo Music (2018) "Platform". Available at: <https://ujomusic.com/> (accessed 28 February 2018).

Compulsory licensing in Ecuador's music industry: a daring strategy within the new intellectual property law in order to regulate music piracy

Abner Pérez Marín⁵

Abstract

Compulsory licensing is when a government allows someone else to produce the patented product or process without the consent of the patent owner. It is one of the flexibilities on IP rights' protection included in the WTO's (World Trade Organisation) agreement on intellectual property, the TRIPS (Trade-Related Aspects of Intellectual Property Rights) Agreement. This practice is common within the pharmaceutical industry. Motivated by the urgent need to regulate the cultural industries, Ecuador's Government replaced its IPC (Intellectual Property Code) with the COESC+i (Organic Code of the Knowledge's Social Economy and Innovation), branded as Código Ingenios, on October 11, 2016. This new code includes the option for compulsory licensing for copyright protected products. This paper aims to analyse the context and the legal grounds upon which compulsory licensing is being considered as a valid tool to be applied to the Ecuadorian music recording industry (and any other associated legal element) within the Código Ingenios, in order to guarantee its validity. The views of lawmakers and recording industry actors are taken into account as well as the potential implications for the actual content creators and consumers, who in theory, would benefit the most.

Keywords: Intellectual property, compulsory licenses, Código Ingenios, copyright, Ecuador

1 Ecuador and piracy - a historical review

Ecuador is the second smallest country in South America (without taking Guyana and Suriname into account). It has a population of 16 million

⁵ **Abner Pérez Marín** is a professional in higher education with experience in songwriting, intellectual property, music performance and production, music business and research. He holds an MA in Media Management from the University of Westminster, UK and a Foundation Degree in Commercial Music from Bath Spa University, UK. Abner works as lecturer for the School of Music at the Universidad de las Américas in Quito, Ecuador. He got a scholarship for the DIES ProGrant Research Writing Programme from the DAAD in 2015 and was awarded for the best paper of the Young Scholars' Workshop of the Vienna Music Business Research Days 2015. Currently, Abner is a PhD candidate for Popular Music at the University of Paderborn, Germany (abnerp.abner@gmail.com).

and in terms of per capita GDP, Ecuador ranks third from last in the region, even though its economy has shown robust growth in recent years (World Bank 2015). The US dollar has been the national currency since 2000, a result of an economic crisis marked by uncontrollable inflation, bank closures, and high levels of corruption. Among other problems, this crisis provoked all-time record levels of unemployment (Beckerman & Solimano 2002).

In this context, informal trade and street selling became a common type of work and the most popular goods sold were illegal copies of films, software and music recordings. Easy access to CD-burning technologies made pirated copies a profitable business, with illegal copies of music albums sold at \$1 as opposed to the full market value of \$20 for the legal version. This, combined with the worldwide decline in record sales, caused the demise of international franchises such as Tower Records and Blockbuster as well as the local branches of the major labels. By 2013, there were just 24 music record stores across the whole of Ecuador selling original copies and around 2,200 shops selling illegal ones (López 2013: 17).

Initially the police would seize the goods from street vendors in order to destroy them, although such actions not only caused violent confrontation, but also were fruitless since the vendors would restock all the goods the following day (La Hora 2004). In 2011, in order to stop the constant confrontations with the police, 3,000 merchants organized themselves in what became the Ecuadorian Association of Audio-visual Products Traders (ASECOPAC). They went directly to the Ecuadorian Institute of Intellectual Property (IEPI) and asked for their trade to be legalised. According to Omaira Moscoso, a former social media lecturer and now president of ASECOPAC, none of the merchants were aware of intellectual property but they were keen to pay something towards it (Heidel et al. 2014).

At this point, Santiago Cevallos, IEPI's chief director of copyright, expressed the view that Ecuadorian purchasers were motivated solely by price (Heidel et al. 2014). On the other hand, Moscoso (personal communication, June 25, 2015) argued that the market for selling illegal cop-

ies of movies and music was not necessarily created or maintained by economic reasons alone but also existed because of the lack of access to cultural goods. Moscoso herself started trading copies of her own personal art-cinema collection in the early 1990s and became a distributor for the art movies that no one else would provide.

In 2012, ASECOPAC made an important breakthrough by talking directly to local film producers and creating agreements for trading licensed copies of national movies. This move not only gave ASECOPAC leverage to keep pressuring the IEPI to reform the IPC, but also, legitimised its role in consumer's eyes as a serious and legal support agent for the national film industry.

With these developments, IEPI changed its position. For Cevallos (personal communication, June 11, 2015), the IPC operating back then was overprotective. *"Some of the protections go even beyond the international normative that the WTO expects from its members. For example, in most countries, sound recording rights last 50 years after the record's release date. On the current IPC, it lasts 70 years."* Thus, in 2013, with SENESCYT (National Secretariat for Higher Education, Science, Technology, and Innovation), IEPI proposed a radical change to the current IPC under the COESC+i, branded as Código Ingenios.

On October 11, 2016, Código Ingenios was approved with 80 per cent support from the National Congress. It is in operation, although many of the policies key to its application, have not yet been officially published. One of the most critical points with regard to the music industry is the possible compulsory licensing of copyright works, which would allow IEPI to license audio-visual or literary works without reference to the exclusive rights owners of music.

2 Código Ingenios - the protection and access crusade

Esteban Argudo (Collecting Society's speech, July 22, 2015), ex IEPI's chief director of copyright, affirmed the philosophy behind Código Ingenios, with regard to content creation, was that the public domain should be the rule and intellectual property the exception. In fact, Ec-

cuador's president at the time of the Code's creation, Rafael Correa, publicly expressed on many occasions: *"The fundamental principle is that knowledge is universal, it's a common heritage of all the world's people. It cannot, and it should not be privatised"* (2013).

As part of this ideology, Ecuador decriminalised intellectual property rights violations in February 2014 (IIPA 2014). Although, this was welcomed by ASECOPAC, the collecting societies were less than happy. As a result, Ecuador joined Argentina, Chile and Venezuela among South American countries on the 2015 U.S. Trade Representative's Priority Watch List (Froman 2015: 56).

Código Ingenios concerns itself with every aspect of intellectual creation and was built collectively. The first draft was published online in a wiki⁶ at the end of 2013, which had many contributions from people in the creative industries. This strategy alone led to a special mention on the 2017 Special 301 Report by the Office of the United States Trade Representative (USTR). That report states: *"Ecuador took a number of positive actions in 2016, including lowering patent fees and conducting an inclusive process during the drafting of the Code of Knowledge, Creativity, and Innovation Social Economy (Ingenuity Code)."* (USTR, 2017). Because of this, Ecuador is still in the Watch List, but it is not in the Priority Watch List anymore.

The approved Código Ingenios is divided into four books. On Book III, Title II refers to performing and mechanical rights and within Title II, section VIII is directly concerned with compulsory licenses. In relation to intellectual property, according to Cevallos (2015), Código Ingenios is the result of reviewing all the flexibilities that the WTO, through the TRIPS Agreement, allows its members. The following graphic explains the reasoning behind the creation of it:

⁶ Available at:

http://coesc.educacionsuperior.gob.ec/index.php/C%C3%B3digo_Org%C3%A1nico_de_Econom%C3%ADa_Social_del_Conocimiento_e_Innovaci%C3%B3n (March 26, 2018).

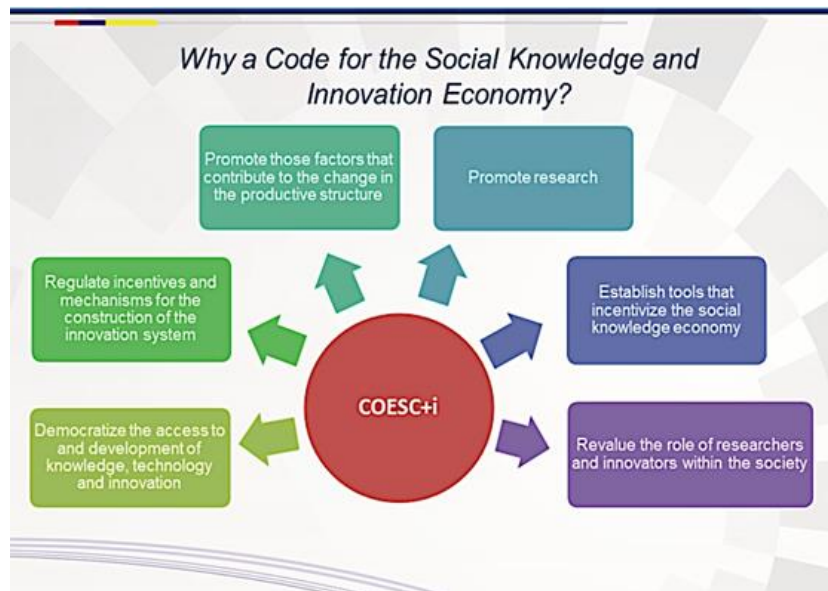


Figure 1: Why a code for the social knowledge and innovation economy? Source: coesc.educacionsuperior.gob.ec

Cevallos (2015) confirmed all existing possible international norms were considered, together with Ecuador's obligations as an adherent of those norms. Then, a catalogue of flexibilities towards intellectual property was produced and translated into different clauses. These clauses focused on two current cultural principles: protection and access. These two principles are an essential part of the National Constitution since 2008. Articles 22 and 23 express:

"Art. 22: People have the right to develop their creative skills, the dignifying and sustainable exercise of cultural and artistic activities, and to benefit from the protection of the moral and economic rights corresponding to the scientific, literary or artistic production of their own. (Protection)

Art. 23. People have the right to access and be part of the public space as scope of deliberation, cultural exchange, social cohesion and

the promotion of equality in diversity. The right to disseminate own cultural expressions in public spaces will be exercised without limitations to those established by law, subjected to the constitutional principles. (Access)"

If protection of cultural goods is higher, access is restricted, and vice versa; therefore Código Ingenios pursues a balance between them. Cevallos (2015) thinks that although the flexibilities contemplated within the code have never been used before, it is time to act so a trade-off between access and protection can be achieved; compulsory licensing is one of those flexibilities. The full Articles with regards to compulsory licenses are included in appendix 1.

3 Compulsory licensing – TRIPS, the three-step test & fair use

A compulsory license is an authorisation granted by a government to a third-party (or to the government itself) to produce a patented/licensed product without the rights-holder's consent (Bond & Saggi 2012: 218; Lybecker & Fowler 2009: 223). Compulsory licensing is one of the flexibilities included in Article 31 of the WTO's Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement in 1994.

Article 31 of the TRIPS Agreement ("Other use without authorisation of the right holder") provides conditions for the use of compulsory licensing by WTO members. The entire Article 31 is included in appendix 2. Exactly when a country can issue a compulsory license is not explicitly addressed by the TRIPS Agreement, although it does mention national emergencies, other circumstances of extreme urgency, and anti-competitive practices, as possible grounds for compulsory licensing (Bond & Saggi 2012: 220).

Nevertheless, since 2004, governments have been allowed to grant licenses for patent use in one of the following situations involving the patent-holder: refusal to deal; non-working or inadequate supply of the market; public interest; abusive and/or anti-competitive practices; government use; dependent or 'blocking' patents (on improvements to prior

inventions); special product regimes, e.g. pharmaceuticals and food; licenses of right, etc. (Lybecker & Fowler 2009: 224).

As applied to international intellectual property rights, it is important to clarify that a compulsory license is not the "*breaking of a patent*" (Cahoy 2011), what is broken is the right of a patent holder to exclude others (Bond & Saggi 2012: 218). When a compulsory license is issued, the most common result is a sharp decrease in price. However, developed nations argue for strong restrictions on compulsory licenses to safeguard their domestic industries (Ford 2000: 946).

Frequently, compulsory licensing operates in copyright law rather than in author rights regimes. For example, compulsory mechanical licensing has operated in USA since 1909 Copyright Act. Within author rights legislations, compulsory licensing has been somehow exclusive to patents. One of the key points in this discussion is that compulsory licensing within patents are justified since they are inventions, such as medicines, that affect human rights directly, but this would not be the case within author rights, therefore compulsory licensing may not be applied to them.

In response to this, Article 7 of TRIPS lays down a principle of balance between rights and obligations and emphasises the Agreement has the goal of fostering not only economic development, but also social welfare. One may argue that social welfare is intrinsically related with human rights. In fact, the criminalisation of common people trying to make a living by selling goods that are not regulated, affects human rights directly (Cevallos 2015).

Additionally, in the current debate on flexibility in the area of copyright exceptions and limitations (E&Ls), the three-step test has to be taken into account. The first three-step test in international copyright law emerged as Article 9 of the Berne Convention (see full Article in appendix 3). This test is sometimes presented as an obstacle to the adoption of open-ended, flexible provisions at the national level.

However, the three-step test was devised as a flexible framework at the 1967 Stockholm Conference on the revision of the Berne Convention, within which national legislators would enjoy the freedom of safe-

guarding national E&Ls and satisfying domestic social, cultural, and economic needs. Geiger, Gervais & Senftleben (2013: 44) provide a thorough historical examination of Article 9 and its possible interpretations. One of conclusions of their study is that the three-step test has to be understood as a refined proportionality test. Many national courts have used its abstract criteria "... *in a global balancing exercise*", and read it in reverse, "*starting with the last, most flexible criterion.*"⁷

With regard to the three-step test, European countries operate with an approach of copyright E&Ls that offer a high degree of legal certainty; however, Anglo-American approach contemplates higher flexibility thanks to its concepts of fair use and fair dealing⁸. Within a flexible fair use framework, the courts can broaden and restrict the scope of exceptions and limitations to safeguard copyright's delicate balance between exclusive rights and competing social, cultural, and economic needs (Senftleben 2013).

On the other hand, one of the major concerns shown by supporters of strong intellectual property rights is that countries seeking to use compulsory licensing have some discretion at their disposal. For example, one of the conditions to expedite a compulsory license is that the entity (company or government) applying for one should have been unable to obtain a voluntary license from the rights-holder on "reasonable" commercial terms. However, it is not clear as to what constitutes "reasonable" commercial terms (Bond & Saggi 2012: 219-20).

Similarly, if a compulsory license is issued, adequate remuneration must be paid to all the rights-holders. In this regard, Scherer & Watal (2002) discuss a variety of contexts in which compulsory licensing has been used. They note that in most cases, the royalty rates paid to the rights-holders have been quite low, often being under 4.5 percent.

⁷ In a more formulaic application of the three-step test, Geiger, Gervais & Senftleben (2013) offered an exhaustive analysis of its interpretation by the WTO panel in the case concerning section 110(5) of the US Copyright Act.

⁸ Even though, they are related concepts, they are not synonymous terms. Their meaning and scope are defined by different legal systems. Fair use is a limitation on exclusive rights in works of authorship granted under U.S. copyright law. Fair dealing is an exception to copyright infringement laid out in the copyright statutes of common law jurisdictions such as Great Britain, Canada, Australia and New Zealand.

Then as well, according to Article 31 a compulsory license must be granted mainly to supply the domestic market. Yet, the WTO's TRIPS Council in 2003 decided that if a country lacked the ability to manufacture a product locally, it could import it from a third party under a compulsory license (Bond & Saggi 2012: 219).

4 Compulsory licensing and the Berne Convention, Rome Conventions and the World Intellectual Property Organisation (WIPO) Copyright Treaty⁹

While it is true that compulsory licensing has mainly been used within patent law, it should not be assumed that it only affects patents. Interpretations under the TRIPS Agreement, the Berne Convention, the Rome Convention and various WIPO's Treaties, confirm that they can directly affect any copyrighted product, including recorded music.

As in the TRIPS Agreement, compulsory licensing is mentioned in the Berne Convention with conditions. Article 13 is concerned specifically with "mechanical rights". This, to some extent, lays down the condition to modify the general and exclusive right, under Article 9, to reproduce a work. Article 13(1) permits compulsory licenses and provides:

"(1) Each country of the Union may impose for itself reservations and conditions on the exclusive right granted to the author of a musical work and to the author of any words, the recording of which together with the musical work has already been authorized by the latter, to authorize the sound recording of that musical work, together with such words, if any; but all such reservations and conditions shall apply only in the countries which have imposed them and shall not, in any circumstances, be prejudicial to the rights of these authors to obtain equitable remuneration which, in the absence of agreement, shall be fixed by competent authority."

Thus, the first condition is that a compulsory license must not be *"... prejudicial to the rights of these authors to obtain equitable remu-*

⁹ For this section, I am extremely thankful to Mr. Nicholas Lowe, ex-Director of Legal and International Affairs of the UK Performing Right Society, for his in-depth insights.

neration". A "competent authority" can fix that remuneration. Compulsory licensing is also referred to indirectly in Article 11bis (2), which provides:

"(2) It shall be a matter for legislation in the countries of the Union to determine the conditions under which the rights mentioned in the preceding paragraph may be exercised, but these conditions shall apply only in the countries where they have been prescribed. They shall not in any circumstances be prejudicial to the moral rights of the author, nor to his right to obtain equitable remuneration which, in the absence of agreement, shall be fixed by competent authority."

The "preceding paragraph" is Article 11bis (1) that provides for an exclusive right for works to be broadcast or communicated to the public. Again, Article 11bis (2) contemplates any compulsory license as long as it is not "*prejudicial to the moral rights of the author, or to his right to obtain equitable remuneration*". The Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organisations, mentions compulsory licenses in Article 15(2):

"Irrespective of paragraph 1 of this Article, any Contracting State may, in its domestic laws and regulations, provide for the same kinds of limitations with regard to the protection of performers, producers of phonograms and broadcasting organizations, as it provides for, in its domestic laws and regulations, in connection with the protection of copyright in literary and artistic works. However, compulsory licenses may be provided for only to the extent to which they are compatible with this Convention."

To understand what is "compatible" in the Rome Convention, it is necessary to look at the exceptions to protection and how they are expressed. The principal exception relevant to sound recordings is contained in Article 12, which provides:

"If a phonogram published for commercial purposes, or a reproduction of such phonogram, is used directly for broadcasting or for any communication to the public, a single equitable remuneration shall be

paid by the user to the performers, or to the producers of the phonograms, or to both. Domestic law may, in the absence of agreement between these parties, lay down the conditions as to the sharing of this remuneration."

As before, the condition requires the payment of equitable remuneration. As for the WIPO Copyright Treaty (WCT), the limitations are contained in Article 10. Nevertheless, Article 1(4) provides: *"Contracting Parties shall comply with Articles 1 to 21 and the Appendix of the Berne Convention."*

Thus, Articles 11bis (2) and 13(1) (mentioned above) will be covered. However, Article 10(2) of the WCT also provides that:

"Contracting Parties shall, when applying the Berne Convention, confine any limitations of or exceptions to rights provided for therein to certain special cases that do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the author."

It follows that there is an extra element in the WCT when applying the Berne exceptions, namely, *"certain special cases that do not conflict with a normal exploitation of the work"*. This is part of the conditions of the second criterion of the three-step test (1. in certain special cases; 2. that do not conflict with the normal exploitation of the work; 3. that do not unreasonably prejudice the legitimate interests of the author/rights-holder.) but the words are missing from both Article 11bis (2) and 13(1) of the Berne Convention. It can be concluded that a compulsory license does not technically represent a "normal exploitation" of a work; then, a compulsory license may not be permitted under the WCT. As for the WIPO Performances and Phonograms Treaty (WPPT), the exceptions are dealt with in Article 16 as follows:

"(1) Contracting Parties may, in their national legislation, provide for the same kinds of limitations or exceptions with regard to the protection of performers and producers of phonograms as they provide for, in their national legislation, in connection with the protection of copyright in literary and artistic works."

(2) Contracting Parties shall confine any limitations of or exceptions to rights provided for in this Treaty to certain special cases which do not conflict with a normal exploitation of the performance or phonogram and do not unreasonably prejudice the legitimate interests of the performer or of the producer of the phonogram."

Thus, again, there is an extra element of "normal exploitation". However, in paragraph (1) any exceptions must be of the same kind as for literary or artistic works, but in paragraph (2) the normal exploitation is in relation to phonograms. In the Rome Convention, the "normal" exploitation of a phonogram could be considered to be in accordance with the Rome Article 12 and thus the exception (the compulsory license) would not *"unreasonably prejudice the legitimate interests of the performer or of the producer of the phonogram"*. It may therefore be that compulsory licenses are permitted under the WPPT in relation to phonograms.

In summary, it can be understood that where a compulsory license is granted, and equitable remuneration is paid to the rights owners in the way that they would if they were able to license themselves, then, in economic terms, a compulsory license is not a bad thing (Lowe, personal email, June 5, 2015).

5 Compulsory licensing and its potential impact upon Ecuador's record industry

According to the International Federation of the Phonographic Industry (IFPI), Ecuador is the 50th recorded music market in the world and ranks 7th in Latin America. Based on its latest data (2016), Ecuador has 0.1% share of the distribution of recorded music industry regional revenue, representing \$6.5 million. This represents a market growth of 82.3% from the previous year (IFPI, 2016).

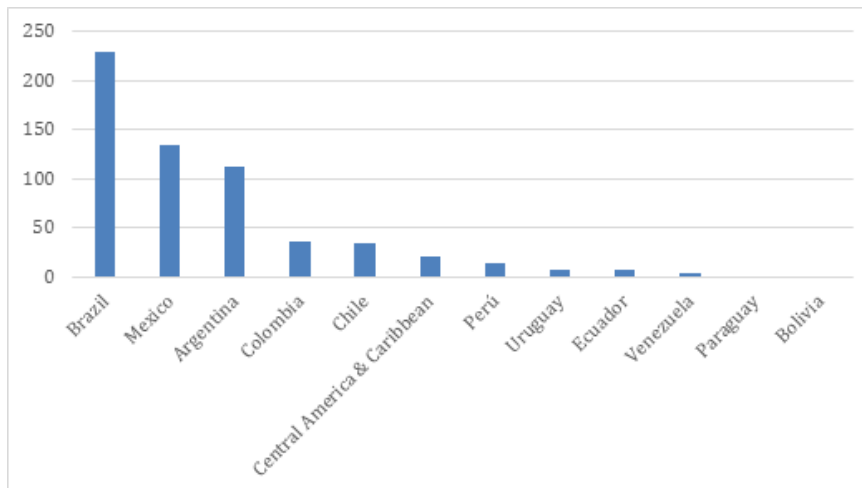


Figure 2: Distribution of recorded music industry revenue in Latin America in 2016, by country. Source: IFPI Global Music Report 2017.

However, according to Ecuador's Ministry of Culture and Heritage (MoCH), these numbers are misleading because they do not take into account the amount of local recording artists who are not members of the IFPI (J. López, ex-MoCH executive, personal communication, August 14, 2015). In 2013, the MoCH performed a large-scale survey, published in the book *Diagnostics and Policies for the Development of the Ecuadorian Phonographic Industry*.

The survey results based on consumption habits revealed the recording industry in Ecuador had a value of \$43.7 million per year. People were willing to pay an average of \$8 per original album, and \$1 per original song. It was difficult to estimate the negative economic impacts of piracy, but according to the collected data, greater regulation of piracy and more consumers buying licensed products, could increase the value of the local recording industry to \$221.55 million per year.

Whilst these numbers may seem over-optimistic, there is nevertheless an urgency to regulate piracy and it seems after years of fighting it that the strategy now is to regulate it by licensing it. Nonetheless, Ecuador, as a contracting party to Berne, Rome, the WCT and WPPT, has to

comply with their respective provisions, as described above. As can be seen in Appendix 1, it seems that Ecuador would, indeed, comply with all the provisions. Additionally, as explained, one of the conditions for compulsory licensing is the absence of negotiation with the rights-holders. IFPI, and the major record labels (Warner, Universal and Sony) have representatives in Ecuador; unfortunately, none were accessible to comment on this.

In order to regulate this, *Código Ingenios* provides the conditions to calculate royalties. These conditions establish that in the absence of a contract, a percentage would be recognised as due to the authors and right holders of musical works. This would boost the sector without eliminating the possibility that the parties can freely agree and formalise a relationship.

With regard to how these royalties will be managed, Karín Jaramillo, current National Director of Copyright and Related Rights of IEPI explains that *Código Ingenios* "... not only forces the collecting societies to render accounts, but also to train their beneficiaries about their work, encouraging the creative activity of the partners, while the practices inherent in the corporate purpose are adjusted to the national reality" (*Asociarse y hacer cumplir la ley 2016*). Jaramillo believes this creates better contractual relationships fundamental for the development of the music industry.

All of this seems to be great news for the local recording industry as all records sold by ASECOPAC members would be licensed, ideally voluntarily but if not, compulsorily. Royalties for creators and authors would be guaranteed through equitable rates, nationally and internationally. Public money would increase through taxation, as the merchants would sell regulated products. For IEPI, access and protection would be balanced. These might be enough reasons for welcoming compulsory licensing with open arms from all the stakeholders within the industry. However, compulsory licensing does not enjoy support from the local industry.

When *Código Ingenios* was being constructed, representatives from the collecting societies (Performing Rights Society (SAYCE), Mechanical

Rights Society (SOPROFON), and Recording Artists Society (SARIME) were part of the process and "*expressed satisfaction with the text*" (SENESCYT, 2014). However, it is now encountering the greatest criticism from them, with directors of SAYCE, SOPROFON and SARIME publicly opposing the law.

David Checa (personal communication, June 19, 2015), Director of the Society of Ecuadorian Authors and Composers (SAYCE), affirmed: "*... Código Ingenios is a complete payasada (charade) and extremely dangerous for authors and composers*". His argument is based on the inclusion of fair use. For Checa, fair use, until now, was an exclusive concept that the United States has on its copyright legislation and it is an open window that allows for infinite interpretations.

Nevertheless, as already mentioned previously, one of the characteristics of the principle of fair use is flexibility. The second paragraph of the previous section to the compulsory licensing one (Section VII) introduces the concept of *uso justo* (fair use) and this concept is part of the Limitations and Exceptions section. So, although compulsory licensing is actually an exception in all the other treaties and conventions, having the fair use in that particular sections means that it can be interpreted as an exception to the exception (The second paragraph has been translated in Appendix 4).

In this context, although *Código Ingenios* represents an opportunity to regulate piracy, the presence of the fair use principle has been received with a lot of distrust by part of the sector, especially, the collecting societies. Jorge Altamirano, Director of the Society for Phonographic Producers (SOPROFON), fears that, because of fair use, compulsory licensing will be "*... an imposed measure regardless of anything*" (personal communication, June 13, 2015).

Apart from *fair use*, another controversial aspect is the fact that compulsory licensing has never been applied to a single individual; it has always been applied to companies or private entities. In Ecuador, most local recording artists own the mechanical rights in their works; therefore, a compulsory license may end up being applied to individuals, not institutions. On this point, Cevallos (2015) claims, "*... the national author*

is here, so, it is possible to negotiate avoiding the need of a compulsory license."

Ideally yes, but the *fair use* paragraph can legally force any author to give away his/her rights. *"No other country allows its government, or a third party, to apply compulsory licensing to their authors' works, even worse, with the aggression that Código Ingenios implies. Ecuadorian authors would find themselves in a disadvantaged position compared with authors from neighbouring countries and to the mercy of the Government in turn"* (Checa 2015).

6 Is compulsory licensing the way forward in Ecuador?

As discussed, compulsory licensing of phonograms or artistic works is a flexibility that can be imposed by a government as a valid resource to achieve a trade-off between access and protection. The famous three-steps test seems inconclusive and there are many flexibilities and exceptions contemplated within the main body and/or annexes of the Berne Convention, Rome Convention, WCT and WPPT that allow for compulsory licensing as an option.

Thus, Ecuador has introduced them in *Código Ingenios*, its current law for intellectual property (copyrighted and patented products). This flexibility is enforced based on the competing principles of access and protection. Currently, without compulsory licensing, the average Ecuadorian citizen is forced to access to illegal cultural goods as much because of market issues as the cheaper prices or intentional infringements of intellectual property.

As a consequence, compulsory licensing might guarantee access to protected cultural goods to all Ecuadorian citizens. In addition, there is the potential to increase the value of the local music recording industry up to \$221.55 million per year, according to MoCH's data. This is 200 times more than the IFPI recorded figure, or six times more than MoCH's current data. If that figure was reached, Ecuador's music recording industry would attain the same level as Brazil. This makes the MoCH's numbers somewhat suspicious because they are based on the assump-

tion that consumers would buy the same number of licensed products as illegal ones.

By contrast as perceived by some, the concept of *fair use* introduced in *Código Ingenios*, and the lack of specifics in terms of 'equitable remuneration' to creators, might cause the opposite effect. Recording artists, songwriters, producers, or rights-holders, might not see any economic benefit from the new law since it would be open to interpretation and also has the power to exempt the licensees (government or third party) from any payments, causing an unfavourable economic environment for creators, and an even worse situation for musicians and producers in the long run.

There are several problems. Many stakeholders want 'equitable remuneration', as an inherent pre-condition for compulsory licensing phonograms and artistic works, to be clarified in the legislation. According to IEPI, putting *Código Ingenios into practice* would be explained in eleven annexed policies that have yet not been published.

These policies would envisage the parameters under which the pricing of compulsory licenses and original rights-holders remuneration would be handled. These parameters can include GDP, market size, and product nature, amongst others. IEPI hopes that a threat of compulsory licensing might encourage entry and persuade rights-holders to voluntarily license their products. "*We do not want to get to the point of issuing compulsory licensing, rather we would like to see the major labels and rights-holders granting voluntary licenses*" (Cevallos 2015). However, a threat that is not properly explained can actually cause enough confusion to promote disengagement by creators and rights-holders.

Stricter compulsory licensing policy makes it possible for a government to lower the price control under entry, thereby improving consumer access. While the threat of compulsory licensing encourages entry, the use of a price control encourages voluntary licensing. Compulsory licensing and price controls are complementary instruments from the point of view of any government (Bond & Saggi 2012: 226-28).

The most challenging question, from a recorded music consumption behaviour's perspective, is: will consumers buy music recordings (li-

censed or unlicensed) at all? Spotify, Apple Music, and Deezer are now available in Ecuador and, as it is happening worldwide, streaming has become more dominant, leaving music ownership behind. A quick visit to any "unlicensed" shop is enough to verify that released albums, in their official editions, are not available at all; unofficial compilations, containing more than a hundred mp3s, are the most popular. A chat with the person selling can tell you a bit more: "... *people are not buying music anymore, not even at \$1!*"

In conclusion, the entitlement to use compulsory licenses should not be about legitimising piracy or ignoring the role of certain right-holders; it should be about the strengthening the music industry. In fact, the statutory fee or statutory rate in the United States represents a well-established usage of a compulsory license. This practice, protected by a principle of fair use can allow the music industry to prosper.

Código Ingenios still provokes uncertainty, fuelled by the lack of trust that Ecuadorian society, music creators included, has towards the government and its public institutions. A year after approval and its policies on compulsory licenses have not been published.; there has not been a single case of a person or company applying for one. For shops selling unlicensed goods, the main products are movies and music is no longer a priority for the pirates. It seems even when the law contemplates the use of compulsory licenses, they will never be used, perhaps because they arrived too late.

Nonetheless, *Código Ingenios* has established a precedent on how compulsory licensing can be applied to copyright products, although it is still on paper and not yet proven in practice. Even if it proves to be catastrophic, *Código Ingenios* has challenged our traditional understanding of intellectual property. "*At the end of the day, in light of the need to balance copyright against competing interests, in particular freedom of expression and information, these (any) flexible interpretations may prevail in the future*" (Geiger et al. 2013).

7 References

- Beckerman, P. & Solimano, A. (2002) *Crisis and Dollarization in Ecuador: Stability, Growth, and Social Equity (Directions in Development)*, The World Bank Publications, Washington.
- Beeby Lewis, T. (1996) "Comment, Patent Protection for the Pharmaceutical Industry: A Survey of Patent Laws of Various Countries", *The International Lawyer*, vol. 30, no. 4: pp. 835-65. Available at <http://www.jstor.org/stable/40707285> (March 26, 2018).
- Berne Convention for the Protection of Literary and Artistic Works (1979). Available at <http://www.wipo.int/wipolex/en/details.jsp?id=12214> (March 26, 2018).
- Bond, E & Saggi, K. (2014) "Compulsory licensing, price controls, and access to patented foreign products", *Journal of Development Economics*, vol. 109: pp. 217-28 doi:10.1016/j.jdeveco.2014.04.001. Available at http://www.wipo.int/edocs/mdocs/mdocs/en/wipo_ip_econ_ge_4_12/wipo_ip_econ_ge_4_12_ref_saggi.pdf (March 26, 2018).
- Cahoy, D. (2011) "Breaking Patents", *Michigan Journal of International Law*. Spring 2011: pp. 461-509. Available at <http://repository.law.umich.edu/cgi/viewcontent.cgi?article=1048&context=mjil> (March 26, 2018).
- COESC+i. (2015) *Código Orgánico de Economía Social del Conocimiento e Innovación*. Available at http://coesc.educacionsuperior.gob.ec/index.php/C%C3%B3digo_Org%C3%A1nico_de_Econom%C3%ADa_Social_del_Conocimiento_e_Innovaci%C3%B3n (March 26, 2018).
- De la Torre, D. (2013) "Todo se rige por el bien común", interview with Luis Villaroel. Available at http://www.lahora.com.ec/index.php/noticias/show/1101487958#.VZvpIPi_Oko (March 26, 2018).
- Ecuadorian Constitution (2008) Articles 22 and 23. Available at <http://www.desarrollosocial.gob.ec/wp-content/uploads/downloads/2013/10/constitucion.pdf> (March 26, 2018).
- El Telégrafo (2016) "Asociarse y hacer cumplir la ley es clave al cobrar derechos de autor", 2016, Octubre 25. Available at <http://www.eltelegrafo.com.ec/noticias/cultura/1/codigo-ingenios-establece-regalias-base-para-autores-y-compositores> (March 26, 2018).
- Ford, Sara M. (2000) "Compulsory Licensing Provisions Under the TRIPs Agreement: Balancing Pills and Patents", *American University International Law Review*, vol. 15, no. 4: pp. 941-74. Available at

<http://digitalcommons.wcl.american.edu/cgi/viewcontent.cgi?article=1278&context=auilr> (March 26, 2018).

Froman, M. (2015) 2015 Special 301 Report. Available at <https://ustr.gov/sites/default/files/2015-Special-301-Report-FINAL.pdf> (March 26, 2018).

Geiger, C. Gervais, D. & Senftleben, M. (2013) "The Three-Step Test Revisited: How to Use the Test's Flexibility in National Copyright Law", PIJIP Research Paper no. 2013-04.

Heidel, E. Martin, E. & Karaganis, J. (2014) "Can former 'pirates' fix a broken movie market?" *Ars Technica*, January 21, 2014. Available at <http://arstechnica.com/information-technology/2014/01/where-movie-makers-and-former-pirates-are-starting-to-get-along/> (March 26, 2018).

IFPI (2017). *Global Music Report 2017*, London. Available at <http://ifpi.org/> (March 26, 2018).

IIPA (2014) International Intellectual Property Alliance' 2014 Special 301 Report on Copyright Protection and Enforcement – Ecuador. Available at <http://www.iipa.com/rbc/2014/2014SPEC301ECUADOR.PDF> (March 26, 2018).

La Hora (2004) Intendencia de Policía decomisa de CDs piratas. Available at http://www.lahora.com.ec/index.php/noticias/show/1000234022/-1/Intendencia_de_Polic%C3%ADa_decomisa_de_CD%26acute%3Bs_piratas.html#.VdYUwfl_Oko (March 26, 2018).

López, J. (2013) "La No Industria Musical en Ecuador: Hacia la recuperación de un paciente terminal", *Cartón Piedra*, vol. 65: pp. 13-7. Available at <http://bit.ly/TVsNDV> (March 26, 2018).

Lybecker, K. & Fowler, E. (2009) "Compulsory Licensing in Canada and Thailand: Comparing Regimes to Ensure Legitimate Use of the WTO Rules", *Journal of Law, Medicine & Ethics*. Spring 2009, pp. 222-39. Available at <http://wardhealth.com/file/1734/download?token=FMWb6w26> (March 26, 2018).

Ministry of Culture and Heritage (2013) *Diagnósticos y Políticas para el desarrollo de la industria fonográfica ecuatoriana*. Quito: Dirección de Emprendimientos e Industria Fonográfica.

USTR - Office of the United States Trade Representative (2017) 2017 Special 301 Report. Available at <https://ustr.gov/sites/default/files/301/2017%20Special%20301%20Report%20FINAL.PDF> (March 26, 2018).

Reichman, J. & Hasenzahl, C. (2003) *Non-voluntary Licensing of Patented Inventions: Historical Perspective, Legal Framework under TRIPS, and an Overview of the Practice in Canada and the USA*. International Centre for Trade and Sustainable Development

- (ICTSD), Geneva, Switzerland. Available at http://www.ictsd.org/downloads/2008/06/cs_reichman_hasenzahl.pdf (March 26, 2018).
- Rome Convention for Protection of Performers, Producers of Phonograms and Broadcasting Organizations (1961). Available at http://www.wipo.int/treaties/en/text.jsp?file_id=289757 (March 26, 2018).
- SENESCYT (2014) "Sociedades de Gestión Colectiva: 'Construimos juntos la propuesta de COESC+i y lo defenderemos ante la Asamblea Nacional'", Boletín de Prensa no. 288. Available at <http://www.educacionsuperior.gob.ec/sociedades-de-gestion-colectiva-construimos-juntos-la-propuesta-de-coesci-y-lo-defenderemos-ante-la-asamblea-nacional/> (March 26, 2018).
- Senftleben, M. (2013) "Comparative Approaches to Fair Use: An Important Impulse for Reforms in EU Copyright Law" in *Methods and Perspectives in Intellectual Property*, ed. G.B. Dinwoodie, Edward Elgar, Cheltenham, UK/Northampton, MA, pp. 30-69.
- Scherer, F. M. & Jayashree, W. (2002) "Post-TRIPS Options for Access to Patented Medicines in Developing Nations", *Journal of International Economic Law*, vol. 5, no. 4, pp. 913-39. Available at <http://jiel.oxfordjournals.org/content/5/4/913.full.pdf> (March 26, 2018).
- Statista (2015) Distribution of recorded music industry revenue in Latin America in 2014, by country. Available at <http://www.statista.com/statistics/297775/music-industry-revenue-latin-america-country/> (March 26, 2018).
- Vicente, W.S. (2014) "Questionable Victory for Coerced Argentine Pharmaceutical Patent Legislation", *Journal of International Law*, vol. 19, pp. 1101. Available at <http://scholarship.law.upenn.edu/jil/vol19/iss4/5> (March 26, 2018).
- World Bank, Countries Overview (2015) Ecuador's context. Available at <http://www.worldbank.org/en/country/ecuador/overview> (March 26, 2018).
- World Intellectual Property Organization Copyright Treaty (WCT) (1996). Available at http://www.wipo.int/treaties/en/text.jsp?file_id=295166
- World Intellectual Property Organization Performance and Phonograms Treaty (WPPT) (1996). Available at http://www.wipo.int/treaties/en/text.jsp?file_id=295578 (March 26, 2018).
- World Trade Organization's Trade-Related Aspects of Intellectual Property Rights Agreement (TRIPS) (1994). Available at https://www.wto.org/english/tratop_e/trips_e/t_agm0_e.htm (March 26, 2018).

8 Appendices

8.1 Appendix 1: Compulsory Licensing for Copyrighted Works in the COESC+i

Book III: Of knowledge management

Title II: Of author and related (mechanical and performing) rights

Section VIII: Of compulsory licenses

Article 217. In granting compulsory license - The competent authority on intellectual property rights may grant compulsory licenses over the exclusive rights of a holder, consisting of a literary or artistic, musical or audio-visual works in the following cases:

1. When there are practices that have been declared by the competent authority in terms of control of market power, as contrary to free competition, particularly when they constitute an abuse of the dominant position in the market by the right holder of author or related rights.
2. When the owner of a musical work has granted authorization for the performance or recording to a person and there is no possibility that another authorization for new interpretation or recording by a third party may be obtained. The application of this compulsory license does not apply when there is express refusal of authorization of the holder.
3. When a literary or artistic work is not translated into Spanish, into one of the official languages of intercultural relation, or to the official languages in the respective territories and such translation is not available in the national market.
4. When a literary or artistic work is not available in the national market and has elapsed since its publication in any form: three years in works of scientific or technological content; five years in the

works of general content; and, seven years in works such as novels, poetry and art books.

5. When an audio-visual work, video or other audio-visual fixation is not available or accessible in the national market and one year has elapsed since its diffusion in any medium or format.

Article 218. In granting compulsory licenses - automatically or on request from the competent national authority on intellectual property may grant compulsory licenses for the country not exclusively in the cases and for the types of work listed in Article 202. Such licenses shall not be transferable except in case of transfer of part of the enterprise or goodwill, which permits its operation; the transfer shall be evidenced in writing and registered with the competent authority on intellectual property rights.

The granting of a compulsory license does not relieve the licensee of respect for existing moral rights over the work or modalities that are not covered by the license.

The license may be revoked, subject to the legitimate interests of the licensee, a motivated request of the right holder or if the circumstances that gave rise to it have disappeared and are unlikely to recur.

Article 219. Payment of remuneration when there is a compulsory license. The right holder of a work which is the subject of a compulsory license shall be entitled to equitable remuneration to be fixed by the competent national authority on property intellectual as provided for in the relevant Regulation.

Article 220. Inability to other measures.- The person requesting the granting of a compulsory license for a literary or artistic work may not be subject to other administrative or judicial, with regards to that work, that the payment of equitable compensation for such purposes determined by the competent authority in the field of intellectual property rights in accordance with the procedure applicable to compulsory licenses, to the extent that the person making the reproduction and distribution, comply with the special conditions and requirements specified by the relevant regulations.

8.2 Appendix 2: TRIPS - Article 31: Other Use Without Authorization of the Right Holder

Where the law of a Member allows for other use (7) of the subject matter of a patent without the authorization of the right holder, including use by the government or third parties authorized by the government, the following provisions shall be respected:

- (a) Authorization of such use shall be considered on its individual merits;
- (b) Such use may only be permitted if, prior to such use, the proposed user has made efforts to obtain authorization from the right holder on reasonable commercial terms and conditions and that such efforts have not been successful within a reasonable period of time. This requirement may be waived by a Member in the case of a national emergency or other circumstances of extreme urgency or in cases of public non-commercial use. In situations of national emergency or other circumstances of extreme urgency, the right holder shall, nevertheless, be notified as soon as reasonably practicable. In the case of public non-commercial use, where the government or contractor, without making a patent search, knows or has demonstrable grounds to know that a valid patent is or will be used by or for the government, the right holder shall be informed promptly;
- (c) The scope and duration of such use shall be limited to the purpose for which it was authorized, and in the case of semi-conductor technology shall only be for public non-commercial use or to remedy a practice determined after judicial or administrative process to be anti-competitive;
- (d) Such use shall be non-exclusive;
- (e) Such use shall be non-assignable, except with that part of the enterprise or goodwill, which enjoys such use;

(f) Any such use shall be authorized predominantly for the supply of the domestic market of the Member authorizing such use;

(g) Authorization for such use shall be liable, subject to adequate protection of the legitimate interests of the authorized persons to be terminated if and when the circumstances, which led to it, cease to exist and are unlikely to recur. The competent authority shall have the authority to review, upon motivated request, the continued existence of these circumstances;

(h) The right holder shall be paid adequate remuneration in the circumstances of each case, taking into account the economic value of the authorization;

(i) The legal validity of any decision relating to the authorization of such use shall be subject to judicial review or other independent review by a distinct higher authority in that Member;

(j) Any decision relating to the remuneration provided in respect of such use shall be subject to judicial review or other independent review by a distinct higher authority in that Member;

(k) Members are not obliged to apply the conditions set forth in subparagraphs (b) and (f) where such use is permitted to remedy a practice determined after judicial or administrative process to be anti-competitive. The need to correct anti-competitive practices may be taken into account in determining the amount of remuneration in such cases. Competent authorities shall have the authority to refuse termination of authorization if and when the conditions, which led to such authorization, are likely to recur;

(l) Where such use is authorized to permit the exploitation of a patent ("the second patent") which cannot be exploited without infringing another patent ("the first patent"), the following additional conditions shall apply: (i) The invention claimed in the second pa-

tent shall involve an important technical advance of considerable economic significance in relation to the invention claimed in the first patent; (ii) The owner of the first patent shall be entitled to a cross-license on reasonable terms to use the invention claimed in the second patent; and (iii) The use authorized in respect of the first patent shall be non-assignable except with the assignment of the second patent.

8.3 Appendix 3: The three-step test (Article 9 of the Berne convention)

Right of Reproduction: 1. Generally; 2. Possible exceptions; 3. Sound and visual recordings - (1) Authors of literary and artistic works protected by this Convention shall have the exclusive right of authorizing the reproduction of these works, in any manner or form. (2) It shall be a matter for legislation in the countries of the Union to permit the reproduction of such works in certain special cases, provided that such reproduction does not conflict with a normal exploitation of the work and does not unreasonably prejudice the legitimate interests of the author. (3) Any sound or visual recording shall be considered as a reproduction for the purposes of this Convention.

8.4 Appendix 4: Fair use in the COESC+i

Book III: Of knowledge management
Title II: Of performing and mechanical rights
Section VII: Limitations and exceptions to performing rights
Second Paragraph:

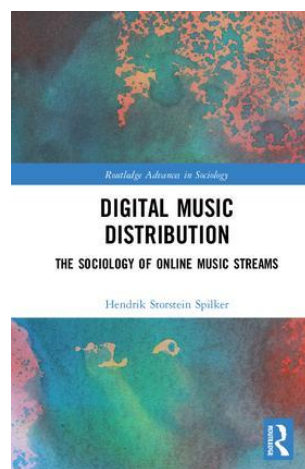
Fair use of a work - Fair use of a work shall not constitute a violation of the performing rights over it. To determine whether the usage of the work conforms to this article, the provisions of this Code and all the international treaties to which Ecuador is part of will be taken into account, as well as:

- 1) if the work is going to be used for non-profit and/or educational purposes;

- 2) the objectives and nature of the usage;
- 3) the nature of the work;
- 4) the amount and relevance of the portion used in relation to the work as a whole; and,
- 5) the usage effect on the current market value and work potential.

Digital Music Distribution: The sociology of online music

streams by Hendrik Storstein Spilker Routledge Advances in Sociology, ISBN 9781138673908 (hardback), ISBN 9781315561639 (e-book)



Book review by Daniel Nordgård

We are beginning to see a broader, more thorough and critical approach to assessing digital change in the music industry. A number of works over the last couple of years have offered more nuanced pictures of digital developments, richer accounts and more interesting assessments, building on a broader set of academic fields and differing methodological approaches. Spilker's book is a welcomed contribution in this sense, organised over ten chapters, 185 pages and a broad set of approaches to a difficult and complex topic.

At the outset this has been a long-awaited book. Ever since first reading Hendrik Storstein Spilker's article *The network studio revisited: Becoming an artist in the age of 'piracy cultures'* (2012), I have become interested in his critical approach to digitalisation and the music busi-

ness. His new book includes the work of the aforementioned article and expands on some of the features found in that initial work such as the ambition to critically assess the processes of digitalisation, the discourses describing digital change and the aim to highlight some of the paradoxes following digital change and the academic discourses surrounding it. In fact, a central and very appealing feature of Spilker's work, is his focus on the many paradoxes following digitalisation and the academic discourses running parallel to assess these developments. This becomes evident in chapter 5, where he describes how the flourishing of home-based studios has not driven people away from the professional studios and the professional music industry. On the contrary, Spilker demonstrates how the network-studios may work as supplements, but not necessarily as substitutes, to the traditional music industry. He thus provides good evidence against widespread claims of disintermediation in the digital music.

Similar paradoxes can be found in other chapters too, such as in chapter 7, where Spilker addresses internal differences in what is usually and universally addressed as piracy, but where there are significant differences in motivations and business models, as exemplified by references to Pirate Bay and Megaupload. These are very different indeed, yet tend to be designated under the same definition of piracy, in academic as well as public debates.

As Spilker describes himself in the Introduction, his aim with this book is to contribute to the understanding of the forces and the outcomes of the drama of digital music distribution. And he does so by thoroughly describing the critical developments leading up to today's streaming economy, a journey that has been rocky, to say the least. The book provides an interesting and very thorough historical backdrop to digital distribution, drawing on early initiatives in digital music, early encounters with piracy cultures, the record labels' responses and the aftermaths of such responses. See for example chapter 8, which deals with the "Piracy Kills Music" campaign and how it was covered in Norwegian media. Or, chapter 6; *The Irony of Virtuality*, which is a very interesting analysis of digital strategy, comparing the music industry with

the newspaper industry, concluding that neither was very successful, even given their different approaches.

One criticism is that the book sometimes feels a little dated, in particular with its heavy focus on piracy and the music labels' anti-piracy efforts, or hacker culture (chapter 5), or attitudes towards file-sharing (chapter 3). After all, one of the fruits of on-demand subscription-based streaming, is the near-evaporation of piracy debates, at least in markets that embraced Spotify and the like. Whilst aware this is not the case in the majority of markets, the book nevertheless builds on Norwegian data and Norway is a leading market in the adoption of streaming; from which perspective, a thorough piracy debate may seem a little passé.

That said, this book deals with debates that are heavily entangled with, or relate directly to piracy and digital disruption and thus draws on these debates and accounts in relationship to current issues. It covers important and interesting debates on digital music distribution, thoroughly describing processes that have led to current situations. The final two chapters (9 and 10), in particular, tie this together well, arguing that today's debates and studies on music streaming must be seen in relationship to, or as extensions of, the discussions around piracy. This becomes very clear in chapter 10, and the subsection *The triumph of piracy* (Spilker 2018: 177). Here, Spilker argues that music streaming must also be read within the framework of a battle over interpretations. The success of music streaming is commonly heralded as the victory over Internet piracy and the merits of the music industry. It is a familiar argument and ties in well with Spilker's backdrop of the piracy wars. However, as he notes, the success of music streaming can also be seen as the victory of piracy, arguing that music streaming would have not happened had it not been for pirate-pressure. Or, as Per Sunding, CEO of Universal Music Sweden admits: "*without The Pirate Bay, Spotify would never have seen the light of day*" (Spilker 2018: 177).

As Spilker concludes himself: it's difficult to understand today's situation without seeing it as an outcome of the conflicts and turbulences of the past decade. Spilker's new book provides a very good framework for better understanding these issues.

Notes for contributors

Submission of papers

All submissions should be made by e-mail to music.business.research@gmail.com.

Authors should prepare and send an anonymous version of her/his paper for double-blind-reviewing. A brief biographical note about each author should be supplied in a separate file. Details should be given of authors full postal and e-mail addresses as well as telephone and fax numbers.

Submission should be in English, typed in double spacing (including all notes as footnotes, references, tables, figures and plates). English or American spelling is acceptable provided usage is consistent.

Submission of a paper to the journal will be taken to imply that it presents original, unpublished, work not under consideration for publication elsewhere.

An abstract of the paper, of up to 500 characters (including spacing), should accompany the article. In addition, a list of between three and six key words, suitable for indexing and abstracting services, should be supplied.

Articles should not normally exceed 7,000 words (without references) in length. If your word-processor is capable of doing a word count please use it to print this at the end of the text, together with the date of the manuscript.

Notes should be kept to a minimum and placed as footnotes at the end of the page.

References

The Harvard reference system is used in this journal: the name of the author, the date of publication and, following quoted material, the page reference, as a key to the full bibliographic details set out in the list of references, e.g. "... citation ..." (Peterson 1990: 56); several authors have noted this trend (Smith 1970; Jones & Cook 1968; Dobbs et al. 1973). [N.B. et al. to be used when there are three or more authors.] The date of publication cited must be the date of the source referred to; when using a republished book, a translation or a modern version of an older edition, however, the date of the original publication may also be given. Where there are two or more works by one author in the same year, these should be distinguished by using 2012a, 2012b, etc. The reference list

should include every work cited in the text. Please ensure that dates, spelling and titles used in the text are consistent with those listed in the References. The content and form of the reference list should conform to the following examples. Please note that page numbers are required for articles, both place of publication and name of publisher should be given for books and, where relevant, translator and date of first publication should be noted. Do not use et al. in the reference list; use surname and initials for each author.

Book volume:

Allen, P., Macy, A. & Hutchinson, T. (2010) *Record Label Marketing*, Focal Press, Amsterdam and Oxford.

Article in edited volume:

Burnett, R. (1996) "The Popular Music Industry in Transition", in *Mass Media & Society*, eds A. Wells & E. Hakanen, JAI Press, London, pp. 120-140.

Article in journal:

Oberholzer-Gee, F. & Strumpf, K. (2007) "The Effect of File Sharing on Record Sales: An Empirical Analysis", *Journal of Political Economy*, vol. 115, no. 1, pp. 1-42.

Edited text:

Smith, A. (1976) [1776] *An Inquiry into the Nature and Causes of the Wealth of Nations*, eds R. H. Campbell, A. S. Skinner & W. B. Todd, Oxford University Press, Oxford.

Translated text:

Tschmuck, P. (2006) *Creativity and Innovation in the Music Industry*, trans. M. Abel, Springer Netherlands, Dordrecht.

Article in newspaper:

Barber, L. (1993) "The towering bureaucracy", *Financial Times*, 21 June, p. 00.

Unpublished:

Holland Mortimer, J., Nosko, C. & Sorensen, A. (2010) *Supply Responses to Digital Distribution: Recorded Music and Live Performances*, NBER Working Papers 16507, Harvard Business School.

Internet references:

If your source of information is a book, a journal, a journal article which is published and just reproduced on the Internet then follow the guidelines above, also adding the type of medium (e.g. on-line), how it is available (e.g. HTTP, Gopher, e-mail) and then the actual electronic address with the dates of access in brackets.

Internet source:

As for print reference, plus: Available at: <http://musicbusinessresearch.wordpress.com> (4 June 2011). Journal article etc.: Not published elsewhere other than on the Internet, then as above but leaving out the place name and publisher.

Notes on style

Justification of text. When producing your word processed document, use the unjustified mode. Leave the right margin ragged and avoid word divisions and hyphens at the end of lines. Only insert hard returns at the end of paragraphs or headings.

Punctuation. Use a single (not a double) space after a full point, and after commas, colons, semicolons, etc. Do not put a space in front of a question mark, or in front of any other closing quotation mark.

Spelling. We prefer spellings to conform to the new edition of the Concise Oxford English Dictionary and to follow the Oxford Dictionary for Writers and Editors.

Initial capitalization. Please keep capitalization to a minimum. When possible use lower case for government, church, state, party, volume, etc.; north, south, etc. are only capitalised if used as part of a recognised place name e.g. Western Australia, South Africa; use lower case for general terms e.g. eastern France, south-west of Berlin.

Full points. Use full points after abbreviations (p.m., e.g., i.e., etc.) and contractions where the end of the word is cut (p., ed., ch.). Omit full points in acronyms (HMSO, USA, BBC, NATO, plc), after contractions which end in the last letter of the word (Dr, Mr, St, edn, eds, Ltd) and after metric units (cm, m, km, kg). Note especially ed. eds; vol. vols; no. nos; ch. chs, etc.

Italics. Extensive use of italic for emphasis should be avoided and only be used for citations in the text.

Quotations. Use double quotation marks and italics for quoted material within the text; single quotation marks should only be used for quotes within quotes. Use leader dots at the beginning or end of a quotation.

Numerals. In general spell out numbers under 100; but use numerals for measurements (e.g. 12 km) and ages (e.g. 10 years old). Insert a comma for both thousands and tens of thousands (e.g. 1,000 and 20,000). Always use the minimum number of figures for ranged numbers and dates, e.g. 22-4, 105-6, 1966-7; but use 112-13, 1914-18, etc. for teen numbers. Use the percentage sign only in figures and tables; spell out percent in the text using a numeral for the number (e.g. 84 percent).

Dates. Set out as follows: 8 July 1990 (no comma), on 8 July, or on the 8th; 1990s (not spelt out, no apostrophes).

En rules. Since there is no en rule on a standard keyboard, use a double hyphen for en rules, use these to link number spans (e.g. 24-8); to connect two items linked in a political context (e.g. Labour-Liberal alliance, Rome-Berlin axis) and to link the names of joint authors (e.g. Temple-Hardcastle project).

Proofs. Authors are expected to correct proofs quickly and any alteration to the original text is strongly discouraged. Authors should correct typesetters errors in red; minimal alterations of their own should be in black.

Copyrights

There is now need to assign copyright or license the publication rights in the articles the International Journal of Music Business Research. Please feel free to use the text for e.g. online publication in blogs, private/academic webpages, academic databases, wikis. If you want to publish the article in a fully copyrighted (online) publication, please let us know.

However, all authors are required to secure permission to reproduce any copyrighted text, illustration, table, or other material and any supplementary material you propose to submit. This applies to direct reproduction as well as "derivative reproduction" (where you have created a new figure or table which derives substantially from a copyrighted source). The reproduction of short extracts of texts, excluding poetry and song lyrics, for the purposes of criticism may be possible without formal permission on the basis that the quotation is reproduced accurately and full attribution is given.

For further questions please contact the journal editors:
music.business.research@gmail.com