

Explain the definition, commercial uses and legal implications of Blockchain on the music and entertainment industries.

Blockchain in the Music Industry

Module : BMTY7002 – Legal & Business Affairs

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1. INTRODUCTION

Since the digital era started, songs have become unregulated torrent files that can be copied and shared; data can be easily changed (such as the song title, artist information and songwriter details). Works are untraceable; they can be used, listened to and modified without the rights holder's knowledge, leading to missing royalty payments (TNW, 2018). There is no universal place for people to look up rights holder information (Heap, 2017) and a 'black box' of royalty revenue that cannot be distributed as the rightful owners are unidentifiable (Rethink Music, 2015). Intermediaries take an arguably inequitable percentage of revenue although their role has changed, leaving songwriters and artists with an unsustainable income (around 13%) (House of Commons Digital, Culture, Media and Sport Committee, 2021). Blockchain technology may help solve some of these issues and modernise the music industry (e.g. Rethink Music 2015., Heap 2017., TNW 2018., Madeira 2020).

2. INTELLECTUAL PROPERTY ISSUES

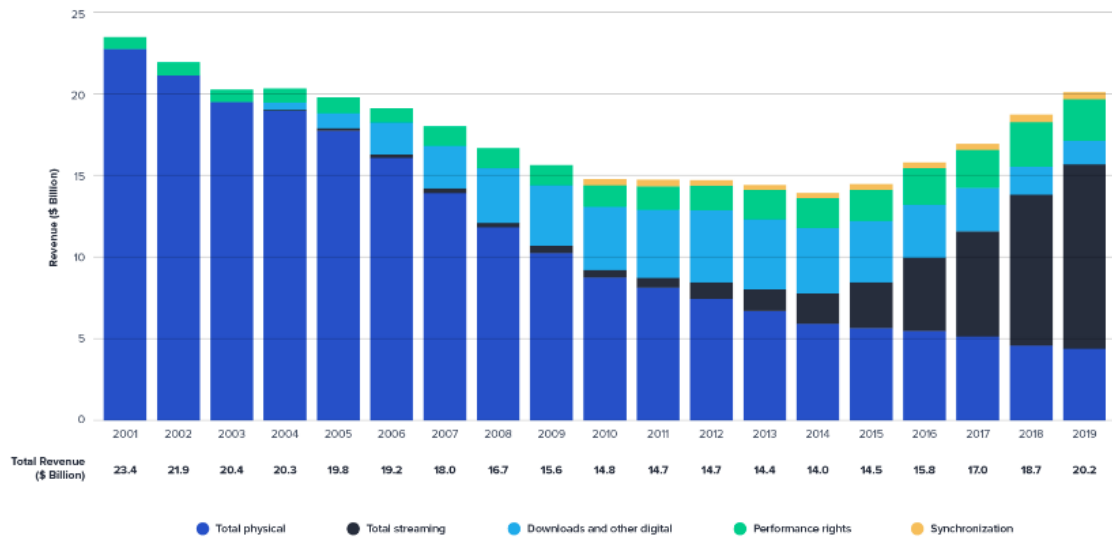
Work that originated in the mind is considered intellectual property (IP). Types of IP protection include copyright (©), patents, designs and trademarks; how these rights are assigned is territory dependent. In the UK, ©'s are automatically protected but others require registration. Rights belong to the person or people who first created the work; although they can be sold or transferred to other parties (Crown Copyright, 2021). Rightsholders make revenue; licencing, managing, exploiting and administrating the copyrights protected by copyright law is a main foundation of the music industry (Lowe, 2020). Song copyrights are usually owned by songwriters and composers, artists, music publishers, record labels and collection societies.

3. STREAMING

Consumer habits have changed, listeners are streaming music more than buying it; but the structure of the industry has remained the same (Bazinet *et al* 2018). Music streaming is at

the forefront of the industry, in 2019 the sector brought in \$20.2 billion (IFPI, 2019). See figure 1.

Figure 1: Global Music Recording Industry Revenues: 2001-2019 (\$ Billion)



Source: International Federation of the Phonographic Industry (IFPI) (2019:7)

Artists are paid a small amount of money from streaming services (approximately \$0.003 - \$0.008 per stream) (Sanchez, 2018a). This payment is split between shareholders which results artists receiving around \$4.37 per 1000 streams (Frankland, 2020). A poll by The Ivor's Academy and the Musicians Union found *that '82% of respondents earned less than £200 from streaming, from all of their music across all platforms in 2019. This included members with thousands, hundreds of thousands, and millions of streams'* (The British Academy of Songwriter, Composers and Authors, 2020). Streaming revenue is not currently a sustainable way for musicians and songwriters to make a living. Songwriters, the roots of the industry, are undervalued, only around 13% of streaming revenue goes to creators (House of Commons Digital, Culture, Media and Sport Committee, 2021). It is argued that this model needs to be modernised to avoid the industry collapsing; the old format of revenue split is not compatible with the new era.

The UK Parliament's Digital, Culture, Media, and Sport Committee are enquiring into the economics of music streaming, the long-term implications on the industry and how to

decrease the piracy (King, 2020a). Free streaming platforms like YouTube make it difficult for other platforms to increase subscription prices. Furthermore, artists have to wait months before receiving any royalty payments, due to the amount of third parties involved in the process.

4. NAPSTER, THE GLOBAL REPERTOIRE DATABASE AND PERFORMANCE RIGHTS ORGANISATIONS

The digital era has made it difficult to stop piracy and keep track of music listens, downloads and data. The lack of a multinational rights database means that transactional costs are high as it takes time and effort for the licensee to find out rights information (Milosic, 2015).

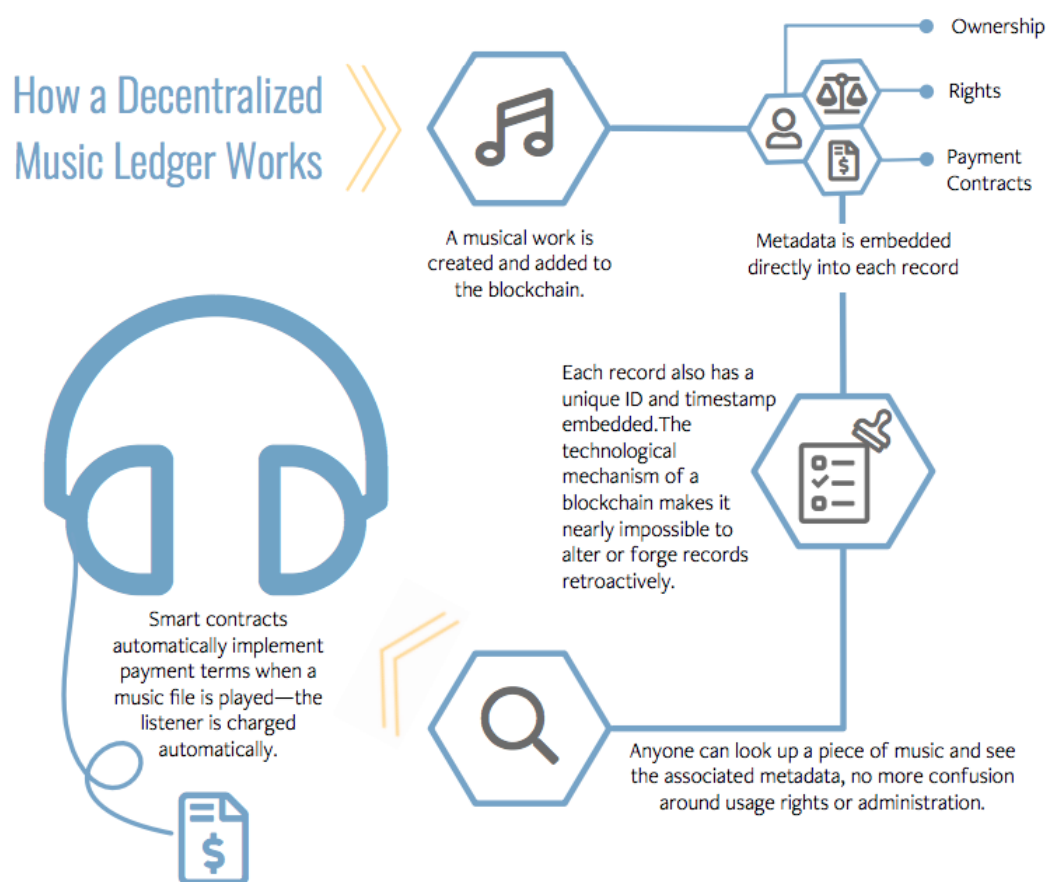
The peer-to-peer file sharing platform Napster launched in 1999, along with the piracy. Illegal copies of MP3's were shared out and rights holders were not being paid. As the digital era flourished, listeners were given more opportunities to listen to music in places without stakeholders receiving equitable royalties (Atkins *et al*, 2020). In 2008, one attempt at global transparency came in the form of the Global Repertoire Database (GRD) but it failed in 2014 due to funding withdrawal (Resnikoff, 2014). Some people were concerned about a central organisation having full control.

Performance rights organisations (PRO's), such as the UK's not-for-profit Performance Rights Society (PRS) host a database and collect © and performance royalties. However, they are limited to certain territories are not linked to streaming services, not used by every songwriter and have inaccuracies (Milosic, 2015). They are also notorious for slow payments. (Music Business Worldwide, 2018). PRS requires songwriters to pay membership (they may lack the funds to do this) sign up and enter song data correctly. In 2015, it was estimated that between 20 – 50 % of royalty payments are not received by correct rights holders (Rethink Music, 2015). Furthermore, non-disclosure agreements hide certain information regarding streaming deals so artists have difficulty checking if PRO's are correctly processing payments.

5. WHAT IS BLOCKCHAIN?

Blockchain is the technology behind cryptocurrencies, such as Bitcoin. It is a distributed ledger which is divided and shared across a network of computers meaning there is no central point of failure. Implementing blockchain in the music industry could result in more secure, unmodifiable and transparent record-keeping (Atkins et al, 2020). The premise is that metadata will be embedded into songs: ownership information, who owns the © underlying works copyright and the ® sound recording phonographic copyright, payment contracts, ID codes and timestamps (TNW, 2018). The metadata can be viewed by anyone, so when a piece of music is played the correct people can identified. Royalties can be paid automatically due to smart contracts. See *figure 2*.

Figure 2: How a Decentralised Music Ledger Works



Atkins et al, 2020: 3 - https://onprem.com/wp-content/uploads/2020/08/wp_blockchain-1.pdf

6. HOW CAN BLOCKCHAIN HELP THE MUSIC INDUSTRY?

Blockchain could provide a solution to rights management and result in correct, prompt, transparent payments to rights holders. It could tackle some of the current issues and modernise and rebalance outdated frameworks (Taghdiri, 2019). It could also update the value chain, shifting the bargaining and economic power back to creators and intermediaries that take a share of the revenue will not be needed (e.g. Caretta 2019, Taghdiri, 2019).

6a. Transparency

The present archaic system means that artists often don't have access to information on how their royalties are calculated. It stipulated that blockchain technology could provide a way for this information to be transparent and secure (Heap, 2017). At the moment, there is no original file when it comes to music; songs can easily be used and listened to without the right holders knowledge. Embedding ownership information onto the file could stop people profiting off other people's work (Tschmuck, 2017). For example, if a track on the blockchain gets uploaded to YouTube, the rightsholder could be identified and royalties could be paid directly to them, rather than the profits going to the person uploading the video.

Blokur (www.blokur.com) is a global blockchain database that publishers can use to upload rights information on works. The community can access this information and approve it. Artificial intelligence scans the database to solve any disputes. Over 50,000 songwriters and 7,000 publishers have used the database to submit works (Daley, 2009).

6b. Cutting out the Intermediaries

Intermediaries such as publishers, managers and distributors are still taking out transactional fees for outdated reasons and the use of blockchain can eradicate these third parties thus increasing the payments seen by artists for their work (Taghdiri, 2019). A concern is that the use of blockchain may threaten and eradicate the business of the intermediaries. However, it is argued that there will still be a need for the human aspect of

intermediaries; their role could adapt as technology becomes more prevalent. For example, labels may take on a role of verifying and approving blockchain data (Tschmuck, 2017). Songs with more metadata embedded within them may be viewed as more trustworthy than those with the minimum data (Tschmuck, 2017), intermediaries could work on ensuring data is available. Collection societies will still be needed for reporting and paying live performance royalties and labels could also still play a crucial part in touring. Some say that the only businesses that would be damaged by blockchain are those that benefit from the current lack of transparency, piracy and slow payment to rights holders (TNW, 2018).

7. CONTRACTS

Record contracts are legally binding agreements between artists and record labels whereby artists sign over their sound recording rights (©) for the label to exploit for a specified term (Salmon 2007). Standard contract terms take the autonomy away from artists and usually give labels control over song licensing, distribution, branding, accounting etc. (Alkaysi 2019). Deals can be global or territory based, however, the borderless digital era complicates territorial contracts (Dahl, 2019). Smaller labels typically offer artists a 50% share on profits whereas major labels offer around 15% (Dahl, 2019).

Contracts between artists and labels can include 'standard deductions' such as CD packaging and breakage costs. It is argued that these deductions do not reflect the true cost to the label (CD manufacturing in bulk is cheap) and breakage costs are becoming minimal as more music is purchased digitally (Salmon 2007). Private sales of song rights make it difficult for streaming services to find out who to pay royalties too (Alkaysi 2019).

7a. Smart Contracts & Faster, Secure Payments

Smart contracts are the digital equivalent to a standard contract, whereby two or more parties can create a binding digital ledger of their terms and conditions of use of the associated media (Taghdiri, 2019). Smart contracts can be embedded as a code into the binding digital ledger of blockchain so are immutable and distributed. The decentralisation of the blockchain means everyone can see and monitor it and report any misuse. These

contracts are self-executing, so when terms and conditions are met, the smart contract will automatically enforce obligations on parties (Atkins *et al*, 2020., Taghdiri, 2019). For example, 'if you play this song, pay this much to these people'. This eliminates the need for an intermediary, e.g. the record label, distribution company or publisher, between the buyer (fans/ licensee) and seller (rights holder). Independent artists could see a huge benefit from this; they would no longer need to exploit or sell their rights to intermediaries or pay transactional costs and have the freedom to set their own terms and prices. Another benefit is that smart contracts make frictionless micro-payments possible and royalty payments would be distributed quickly, in alignment with the shares stated in the contract (Carretta, 2019). Micropayments are possible too (e.g. Bitcoin is divisible by eight decimal places (Bitcoin 2021)) and exchange rates don't come into play.

There are a number of blockchains that support smart contracts, the most popular is Ethereum. Ethereum was created to facilitate smart contracts and coined a smart contract programme language called solidity (Simply Explained, 2017). Some artists are already using Ethereum to release their music. For example, grammy-winning producer RAC released his album 'EGO' via the artist portal Ujo on the Ethereum blockchain. He believes that this technology will help return the power of the industry back to content creators (Nest HQ, 2017). Blockchain provides a more direct connection between the artist and their fans, also, it makes it easier for people that wish to licence or use the music as they can deal directly with the artist.

Limitations that need more exploration include the a lack of consensus on what traditional concepts of contract law fit with smart contract code and how any breaches will be dealt with in terms of jurisdictional conflicts (Carretta, 2019).

8. OTHER WAYS BLOCKCHAIN IS BEING USED IN THE MUSIC INDUSTRY

There are many ways that artists can use blockchain technology and many blockchain companies emerging that focus on different elements. Fans are also benefitting, for example, on sites that give them the opportunity to purchase non-fungible tokens (NFT's) from their favourite artists using certain cryptocurrencies (e.g. Ethereum) and then keep

them or sell them on as they change in value. Some artists that are successfully utilising NFT's are Deadmau5 (King 2020b), Kings of Leon and Linkin Park's Mike Shinoda (Willings 2021). Examples of NFT's include ownership of an original work, digital collectibles, rights to a song or a piece of digital art. It will be interesting to see if this becomes more popular in the scene of emerging artists where there is strong community link with fans (Madera, 2020).

Musician Imogen Heap started up a blockchain called MyCelia, she wanted an easier, more transparent way for people to licence her music and collaborate with her. This was following the discovery that a visual artist on Vimeo had his videos removed because he used one of Heap's songs (Heap 2017). MyCelia's Creative Passports is a blockchain database for all song information, including collaborators.

In 2015, Heap partnered with blockchain powered Ujo (www.ujomusic.com). On Ujo, users can listen to music, buy digital collectibles, connect directly with artists and other fans and tip artists using the Ethereum cryptocurrency; also, there are no fees for artists. Smart contracts are put in place for each song and cryptocurrency payments are given out to each collaborator automatically; artists can also manage licencing and releases themselves (Ujo, 2021). Another platform with a similar business model is Hong Kong based Musicoin (www.musicoin.org), Volareo smart speakers have integrated Musicoin too, so when songs are listened to, artists get paid.

9. ISSUES WITH BLOCKCHAIN

Artists may still require certain skills and expertise of Intermediaries. Writing smart contracts and managing finances independently requires financial and legal literacy (Madeira, 2020) and meta data needs to be entered promptly and correctly onto the blockchain.

There is a need for a universal accessible way for rights holders to be identified and it may be argued that, to achieve simplification, there should be a primary music blockchain or at

least a generic standard. Time will tell which blockchain technology will dominate the industry and be at the forefront of the movement.

Legal implications include the fact that blockchain needs to align with music rights laws and regulations relating to the new technology in different locations, many of which are still in a development stage (Atkins *et al* 2020).

Barriers of adoption may include; reluctances to use blockchain due to lack of trust and the volatile nature seen in cryptocurrencies (Ito & O'Dair 2019) and people are unsure on how blockchain works (Sanchez, 2018b). Imogen Heap reported that some fans did not buy her song on Ujo Music as it required people to set up an Ether Wallet and pay with Ether (Heap 2017).

However, it appears that some key players in the industry are starting to prepare for blockchain which may increase the awareness and trust in the general population e.g. Spotify acquired Mediachain in 2017 and hired someone to work out how best to use it (Dredge, 2020). Eventually streaming services such as Spotify may only take tracks on blockchain.

10. CONCLUSION - THE FUTURE

The adoption of blockchain will take time, in 2016 Mougayar predicted that 2021 could be the start of a more global vision realisation of the potential of blockchain (Mougayar, 2016). In 2018, DotBlockchain founder Benji Rogers shared his hopes that blockchain will help to build a protocol for media (TNW, 2018). Believing that blockchain can be a synchronisation agent for audio files, ownership information, meta data and licencing information. Creating a trackable and visible music industry owned FORMAT.

It can be seen that blockchain technology has the potential to revolutionise the music industry and solve some financial issues for artists. NFT's have potential for providing a new revenue source while building on fan to artist relationships (Madiera 2020). Databases such as Mycelia's Creative Passport, Blokur and DotBlockchain could help make it easier to find

out information on the rights holders and access licencing information through syncing metadata with audio files. Streaming platforms such as Ujo and Musicoin could result in fairer streaming payments for artists. The use of smart contracts could lead to prompt royalty payments.

It is hoped that by adopting blockchain technology, the music industry will become more of a place of equitable payments and fair trade for creators. In a simplified and perhaps ideal world, a universal blockchain music leader could tend to all intellectual property copyrights (© and ®) and a global PRO could handle performance royalties. It will be interesting to watch the next few years unfold and to see if the complexities and legal paradigms of blockchain will be resolved (Carretta, 2019).

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