

Element 2 (Essay)

EXPLAIN THE DEFINITION, COMMERCIAL USES AND LEGAL IMPLICATIONS OF BLOCKCHAIN ON THE MUSIC AND ENTERTAINMENT INDUSTRIES.

Introduction

The music industry must continually assess and strategise changes in technology and its impact on their industry. In the last few decades, there has been a significant shift in the technology of making, storing and consuming music. Where music consumption was previously via ownership of physical products such as cassette tapes, CD and vinyl, it is now accessed mainly via digital streaming platforms on electronic devices such as smartphones and laptops (PWC, 2019). The move away from physical ownership began in the early 2000s with the launch of websites like Napster and Limewire, where users could access peers' MP3 files freely (Forde, 2019). This saw the decline from a peak in the industry in 1999 - 2000 when revenues were fifteen billion dollars in the US (Inter-American Development Bank, 2017). Music file-sharing had a detrimental impact on the music business, fuelling unprecedented levels of piracy and almost collapsing the industry (Forde, 2019). It took fifteen years to develop new ways of working and recover from the impact of illegal file-sharing (Forde, 2019). In 2017, the industry earned seven billion dollars in the US (Inter-American Development Bank, 2017), nowhere near the former peak earnings, but on an upward trend. Part of the road to recovery was to legitimise MP3 downloads through paying for music on iTunes and lowering the price of music. Improvements in internet technology then led to streaming through sites such as Spotify rather than downloading and storing files on individual devices. Streaming now accounts for the majority of global music revenue (Topic: Music Streaming, 2020). For customers, this simplified access also made it far more economical to consume a wider range of music (Chi Ho Kim, 2019). Each platform has revolutionised the way we listen to music (Hoppe, 2019) and presented different challenges for the music industry, all within the last two decades. Technology continues to advance at an ever-increasing rate, and it will be vital for the industry to continue to assess the technological threats and opportunities to their operations.

Current music industry challenges

Overall earnings in the music industry are lower with the digitalisation of music than compared to revenues in the era of physical products, and this has affected the entire value chain (Inter-American Development Bank, 2017). However, it is argued that not all stakeholders have faced the same decline (Inter-American Development Bank, 2017). Whilst physical retailers were primarily made obsolete; streaming platforms are now an additional component added to the value chain (Inter-American Development Bank, 2017). There are four major platforms; YouTube, Spotify, Apple Music, and Amazon, who hold a lot of power in comparison to artists and have determined the flat rates paid to artists (Inter-American Development Bank, 2017). While on the one hand, streaming has achieved revenue for the industry and presented an opportunity to release music 'independently', in many ways a traditional model is still in place. The artist is arguably limited to streaming through a small number of intermediaries at non negotiated rates who also control their revenue management (Inter-American Development Bank, 2017). The artist must trust these intermediaries to "accurately track intellectual property, collect revenues and pay the artist fairly" (Inter-American Development Bank, 2017).

How artists make money has always been problematic, especially for artists signed to a record label. Lengthy and complicated contracts are the norm. Royalty calculations in these contracts are not straightforward percentages easily applied to sales (McCormicks, 2013). They often take into account taxes, recoupment of expenses, packaging and pressing of physical products, advertising and promotion, staff and administration costs and so on (McCormicks, 2013). Some of these types of expenses can make it difficult for an artist to understand how they make money and how royalties are calculated. These types of deals still exist despite the digitalisation of music. Although royalty rates per play are standardised per streaming platform, and revenue reports are provided to artists in real-time, record deals are such that they receive a fraction of the overall reported rate. Complex calculations also create a delay between the point of earning income and the artist receiving that income. For decades creators and musicians have been calling for a framework within the music industry built around transparency and fairer remuneration between label and artist (Bosseljon, 2020).

In addition to complex royalty calculations, music intellectual property is still often inappropriately registered or tracked (Hoppe, 2019), making it challenging to locate the correct rights holders and pay them accordingly. In fact, “up to 25 percent of streaming publishing royalties going unpaid” (Christman, 2015 in Inter-American Development Bank, 2017). Complex and incomplete contracts can create uneven, improper distributions to rights holders, and are currently paid quite slowly from performing rights associations (Chi Ho Kim, 2019). One of the most pressing issues for the music industry is the lack of an extensive database of rights (PWC, 2019). There is currently a host of different databases with disjointed data making it difficult to track rights ownership and guarantee all involved in the creation of the music are acknowledged and compensated (Carretta, 2019). There has been a consensus that an improved system of rights ownership information management is crucial to the better development of the digital music industry (Carretta, 2019). In 2008 this was recognised by most in the publishing sector, and the Global Repertoire Database (GRD) project was set up (Cooke, 2014). The GRD project involved many different organisations coming together in an attempt to create a singular centralised database. By “documenting owners, beneficiaries and administrators of lyrical and musical copyrights, licensees are able to more easily identify who controls any songs or musical works they wish to make use of, facilitating the more efficient distribution of royalties to corporations and individuals who are due payment” (Cooke, 2014). However, by 2014, six years on from the project announcement and eight million pounds spent, it was disbanded due to “a fall-out of collection societies over funding” (Cooke, 2014). Although the industry had the buy in to create the database the task seemed to have proved rather complicated and may signify there are greater challenges to creating a singular database than were anticipated by those involved.

Blockchain technology

Although yet to have a significant impact, it is an existing technology with the potential to improve current information asymmetries (Inter-American Development Bank, 2017) and improve transparency and accountability in the music industry. Blockchain was developed by a person or collective known by the pseudonym Satoshi Nakamoto (Arcos, 2018). It is based on bitcoin

technology and is a distributive ledger (Arcos, 2018). Blockchain transactions are protected by tamper-proof digital technology using cryptography, with each block incorporating transaction data and a timestamp (Kalra and Tyagi, 2020). “As new data comes in, it is entered into a fresh block, once the block is filled with data it is chained onto the previous block, which makes the data chain together in chronological order” (Conway, 2020). “Using cryptography, verification and incentive mechanisms, blockchain networks allow participants to agree on acceptable transactions” (Chi Ho Kim, 2019). The open nature of the technology allows users to trust each other, making banking intermediaries unnecessary (Inter-American Development Bank, 2017).

Blockchain may have the power to transform the processes of the current traditional structure (Iansiti and Lakhani, 2017) as the blocks can store valuable information that provides irrefutable proof of ownership, registration and clearing rights (Asselot, 2020). It can offer transparency through the value chain, allowing artists to see exactly who is paid what and when, removing current powers held by larger corporations (Inter-American Development Bank, 2017) and reliance on intermediaries to calculate payments and automating payment processes to all contributors simultaneously. This can positively impact the artist’s earning capacity. There are already several companies utilising blockchain technology in these ways (Daley, 2020), with some blockchain platforms allowing artists to take 100% of the revenue (Chi Ho Kim, 2019).

Smart contracts are the key component behind the success of blockchain for the music industry. “Currently there are many contracts between various parties: musician/publisher to label, performing rights associations to end users and performing rights associations to musicians” (Inter-American Development Bank, 2017) who all take a cut of the proceeds for their services. The smart contract creates one set of rules stored in the chain to govern and manage the relationships between all involved, carrying out tasks triggered by contingencies specified by the parties (Inter-American Development Bank, 2017). It will be critical from the outset to have all the rights data, and relevant information entered into the blockchain be precise from the start, so the correct parties are compensated and credited. Once data entered into the blockchain is complete, it is impossible to tamper with or change (PWC, 2019).

There are two fundamental components related to copyrights, assignment and piracy (Inter-American Development Bank, 2017). While assignment has remained relatively untouched with the advent of the internet, the internet has created substantial opportunities for the swift reproduction and piracy of music (Inter-American Development Bank, 2017). Blockchain is expected to impact both aspects of copyright, although it is unclear whether it can completely solve all its issues. With blockchain, it is necessary to register copyright in the chain to sync with monetisation (Inter-American Development Bank, 2017). However, it is yet to be seen as to how blockchain can prevent the fraudulent self-certification of rights. If these issues are addressed, there is a possibility to create a global registry that has been sought by many in the industry for a long time.

Limitations of blockchain

Although blockchain technology appears to hold promise, current technology couldn't facilitate the number of transactions streamed at present (Kim and Hao, 2020), which prevents it from being utilised across the industry today. Some research believes it may take over five to ten years to have a significant impact on the industry (Chi Ho Kim, 2019).

In addition to technological advancements, there will need to be a culture change to support music consumption through blockchain (Iansiti and Lakhani, 2017). Currently, cryptocurrencies are not widely used or accepted by the majority in our societies, and there will need to be a significant change before music can take off on blockchain. The blockchain platform will need to compete with the usability of current streaming platforms and host some artists whom users would want to listen to encourage switching from existing platforms (Chi Ho Kim, 2019). It will also need to be understood and embraced by artists, who may face persuasion by others in the value chain.

There is a potential negative impact on other stakeholders within the value chain, especially intermediaries whose roles may be eliminated or significantly reduced i.e. lawyers, labels, and publishers (Shilina, 2019). Whilst the blockchain will favour artists, it may also have a huge impact on a range of jobs and companies who work to service the industry.

There is also doubt as to whether contracts can be held in the smart way that has been theorised, with questions over whether complex legal information can be stored and self executed (Chi Ho Kim, 2019). If contract disputes arise there are questions over what the legal principles are in place within the algorithm (Inter-American Development Bank, 2017). And while it seems possible that blockchain could document rights in a more transparent way, it is unclear as to whether it can address piracy and prevent fraudulent registration of rights. These are areas the industry will need to foresee to secure a fluid integration (Kalra and Tyagi, 2020).

Conclusion

The music industry has been shaken up by disruptive technologies before. Still, one thing that has remained constant is the labyrinth of contracts between an artist making a recording and the consumer listening to the recording. Blockchain technology may have the potential to simplify lengthy and outdated processes within the music industry and provide transparency for artists to monitor their intellectual property in real-time. This will create resistance to the technology from those who may be worse off. Smart contracts are arguably the essential part of the blockchain process due to their tamper-proof nature and reducing the use of intermediaries, which may have a significant impact on the value chain of lawyers, publishers and labels alike. However, it is unclear how possible it is for complex contracts to be held in a blockchain. It is clear that the technology has limitations, and requires further development to host music on the scale it is currently consumed. This move will also require changes to cultural norms for the use of cryptocurrencies. Although there are a growing number of independent blockchain platforms and artists, they are niche in

terms of the customer base, and awareness of such projects appear to be consumed by the more tech-savvy of music lovers. Blockchain may be the answer to increased transparency and fairness to the artist, but like bitcoin will not be taking the place of the traditional financial institutions any time soon, neither will blockchain be taking over the music industry just yet. For now, blockchain will have to coexist within the conventional framework of the music industry until technology, and other resistances are overcome.

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