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MA Music Business

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

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CONTENTS

1. What is Blockchain?	3
2. The Growth of Music Streaming	4
3. Simplifying The Commercial Chain & Empowering Artists	5
4. Modernising & Commercialising PROs' Royalty Data	7
5. Fast & Frictionless Royalty Payments	9
6. Opening New Revenue Streams	11
7. Conclusion	12
8. References	13
9. Bibliography	15

1. What is Blockchain?

A blockchain is essentially an incorruptible ledger of blocks of data, and that data can be just about anything (Naughton, 2016).

Distributed Ledger Technology (DLT) or blockchain technology emerged as the foundation for the cryptocurrency, bitcoin, and the associated payment system, Bitcoin. It was first discussed in a 2008 paper written by Satoshi Nakamoto and implemented early the following year. While Bitcoin was ingenious in a number of respects, many now believe that Nakamoto's most important innovation was not bitcoin itself but its underlying blockchain technology. This allowed payments made on its network to be conducted peer-to-peer, without the need for a third party to verify the authenticity of the transaction (O'Dair, 2016).

At root, the blockchain is a ledger, which uses a 'mesh' structure as opposed to the 'star' or 'hub and spoke' structure of centralised and even decentralised systems. This type of database functions like a shared spreadsheet where all the data is available for people to see and can be verified by all the participants on that spreadsheet. As each participant relies on every other participant to validate the data, there is no need for a third party to manage or verify the authenticity of the data.

It has two major features that make it highly attractive as a store of data. Firstly, data written to it is immutable and therefore provides an auditable record of events that cannot be modified. Secondly, an exact copy is maintained in a large number of independent locations: there is no central point of failure (O'Dair, 2016). One of the key attributes of blockchain is that it is said to be virtually un-

hackable due to the complex cryptography and the distributed nature of the ledger (McKinlay, *et al* 2018).

This makes potential handling of data more efficient, more transparent, more cost effective, more reliable, and more secure.

2. The Growth of Music Streaming

The music industry has grown in terms of the amount of music content that is accessed and used online. The internet now delivers trillions upon trillions of separate music streams generating huge amounts of micro payments and royalty processing administration. For example, in 2020, 22.4 trillion performances of music were reported to PRS for Music with £650.5m collected on behalf of its members, making it one of the world's leading music collective management organisations. Royalties due to usage of music being broadcast or performed may pass through several different collection organisations, all of them taking a piece of the revenue pie and reducing what the artist is finally left with. In some instances, it can take years before an artist receives royalty payments for usage of their music. Many artists now find that their music is being played more but that they are earning less from it.

In addition, music copyright data is managed and stored in multiple royalty administration locations and is often inaccurate either because it is out-of-date, contains errors or has been left out of a sample in a collection analysis. This results in a 'Black Box' containing a large pool of unpaid royalties. A lack of transparency in terms of agreements between record labels and publishers with streaming companies, means that artists can have little or no insight into how revenue generated from their music is being accounted for. Further, artists have little or no control over their work in terms of price, availability and commercial

contact with the users of their music. Blockchain technology can potentially provide solutions to these issues.

3. Simplifying The Commercial Chain & Empowering Artists

By decentralising and cutting out the need for third parties, blockchain technology can modernise and simplify the process for artists and songwriters giving them direct control over how they monetise their music and interact with their fan base. It can be transformational in how it gives artists control over the commercial exploitation of their assets with a secure and transparent view of their revenue and royalty chain.

A fundamental feature for commercial use of blockchain technology in the music industry is a decentralised networked database. This provides a basis for blockchain to find and track digital music around the internet. With correct data, royalty payments can be made in real time.

Music contains two copyrights: one for the sound recording and one for the words and music of the composition. Blockchain can store both and therefore can provide a networked music copyright database for administration of both licensing and royalties.

Ujo, a New York-based company, has become a famous open platform, empowering artists who can have full control over the music they share and maintain a direct connection with their fans (Gemtracks, 2021). It provides a decentralized database of music ownership featuring a blockchain-based platform where artists can not only upload their works, self-publish, control licensing options and manage distributions - earning 100% of their sales and tips with no fees, but also automatically split payments with collaborators of each project.

Ujo Music was born as a project within ConsenSys to license and distribute the music of the famous British artist and songwriter Imogen Heap. Heap has promoted the concept of simplifying the commercial process for music creators and said, *'We need to cut out the middlemen, of which in the music industry, there are way more of them than there are artists'* (Howard, 2017, p.33). Heap founded Mycelia which uses blockchain's smart contract payment system and a creative passport concept, to pay all the contributors on her song album.

In August 2021, Ujo Music was named by BuiltIn Beta one of the top twenty blockchain firms to transform the music industry (Daley, 2021).

An important legal consideration here is that in many blockchain use cases there is no one centralised party that takes responsibility for the provision of services or controls associated with the data. Instead, each partner in the blockchain holds a copy rather than a master copy. Whilst decentralisation can bring benefits it also poses a legal and regulatory challenge if there is no central party that is responsible and can be held accountable. This could be a significant issue in respect to GDPR regulations, where identification of a 'controller' and 'processor' is required when administering personal data.

In addition, a decentralised ledger can span multiple locations around the world, therefore there is a risk that transactions performed could fall under multiple jurisdictions which would mean considering many different laws and regulations and increasing the cost of transactions.

In a private blockchain system, where there is clear ownership and responsibility, regulators might expect those running the system to be accountable for data added to the system by all the network users. The system owner could be seen as enabling the distribution of data through the blockchain in a comparable way to a search engine. It would then be the system owner's responsibility to protect

this data, despite not publishing the personal data itself. Safe-harbour regulation is being reviewed for businesses using blockchain and crypto currencies. In the US, the SEC Safe Harbour 2.0 proposal has been received positively by the blockchain business community but it is not conclusive and it is not yet passed into law (Hargrave, 2021). Therefore, in cases like this, the owner would likely have to put in place a set of operating conditions on the private blockchain that comply with regulations, which all users would in turn agree to comply with (Salmon and Myers, 2019).

If Artists or business are dealing with cryptocurrencies, then they also need to be aware of the tax liabilities. In the UK, the government has published the Crypto Assets Manual which outlines the tax treatments for cryptoassets (HM Revenues & Customs 2021). Although Bitcoin is a virtual currency, it is an asset for capital gains tax purposes and 'ordinary' owners who acquire Bitcoin as an investment will realise a capital gain or loss when they exchange Bitcoin for traditional currency or for goods or services (Moody, 2018). In the case of *AA v Persons Unknown* [2019] EWHC 3556 (Comm), the UK Commercial Court granted an interim proprietary injunction over Bitcoin, thereby confirming its status as property.

Music industry organisations and individuals will need to understand the implication of cryptocurrency ownership and tax regulations in their local tax jurisdictions and possibly elsewhere, too.

4. Modernising & Commercialising PROs' Data

A network database could also be the basis for PROs to develop one comprehensive and commercial music copyright database, meaning that information on the blockchain would be updated instantly and automatically; the

same information would also be available to all users rather than stored in many discrete databases.

This aim has already been attempted by the music industry in the past with the Global Repertoire Database (GRD) project which was set up as part of a European Union (EU) Initiative by the Performing Rights Society for Music (PRS) in 2008, supported by other Performing Rights Organisations (PROs) in Europe. For the first time, a single, comprehensive and authoritative representation would be in place of the global ownership, administration and control of musical works (PRS, 2010). The initiative ended unsuccessfully in 2014, due to complexities in data sourcing funding between the various societies involved in the project. However, the PRS acknowledged that they remain committed to the principles of a single point of works registration and reconciliation of ownership shares under broad stakeholder governance (Cooke, 2014). In 2017, the PRS joined forces with ASCAP and SACEM to initiate a joint blockchain project, utilizing IBM blockchain technology to prototype a new model of metadata recording and management to speed up licensing and royalty payments (Smirke, 2017).

Clearly, the PROs need to find a solution and are open to exploring blockchain technology. However, there does not appear to be any further public updates on the status of this project from the PRS since the initial announcement. Collectively, the pace and ability of PROs to work together to share data is slow and seemingly apprehensive.

Blockur is an example of a British company that has taken a commercial approach to establishing a global networked database for music publishing copyrights. Working directly with songwriters, writers, labels and publishers,

Blockur is using blockchain and Artificial Intelligence (AI) technology to build a new system of record for music rights data to combine different sources of rights data in one database. 70% of the music publisher sector now uses Blokur according to Blokcur.com. The company offers a licensing service for end users, managing the process with the copyright owners of the composition and issuing a licence. Blockchain technology is potentially transformative in functioning as both a database and a network (Gupta, 2016), giving access in real time to data updates. Blockur is a good example of this.

5. Fast & Frictionless Royalty Payments

The explosion of digital music and streaming of music on the internet has really demonstrated that traditional methods used by the music industry to collect, administer, account and pay royalties are not really fit for purpose when it comes to the administration of streaming royalties. It takes months or years for rights holders to eventually receive royalty monies and the royalty payment chains can be long and lack transparency. Money can get stuck and unpaid. In its recent response to '*The Economics of Music Streaming*' report published by Parliament's Digital, Culture, Media & Sport Select Committee in July, the UK Government stated, "It is important that all parts of the industry work to ensure that the quality and timeliness of data is improved so that it is accurately recorded to allow for remuneration and attribution of creators". The UK Government will also soon publish an in-depth piece of research on '*Creators' Earnings in The Digital Age*'.

The commercial use of blockchain technology can undoubtedly improve this situation for artists and rights holders. Firstly, the low transaction costs of cryptocurrencies potentially means that less is being deducted from the revenue when compared to multiple PRO fees. Secondly, crypto currencies have a large

range of denomination, typically to eight decimal places, making the sort of micro payments generated by streaming use both effective and efficient. When combined with a smart contract, music royalties can be administered almost instantaneously, intermediaries can be eliminated, and global digital revenue from a stream or download can be distributed automatically between rights holders, according to the copyright ownership of shares in a song as soon as a track is downloaded or streamed.

The use of smart contracts is a common feature with companies operating blockchain technology. A smart contract is a legally binding contract in which some or all of the contractual obligations are recorded in, or performed automatically by, a computer program, using code and deployed on a distributed ledger.

Mediachain is a peer-to-peer, decentralized database for sharing information across applications and organizations, acquired by Spotify in 2017 (Schneider, 2017). The company uses smart contracts with musicians that directly state their royalty stipulations without the hassle of using other third parties or contingencies. Data is tamper-proof and decentralized, enabling location-independent collaboration with no central point of control. Using cryptography, all data in Mediachain stays connected to the identity of the author, offering a channel for attribution, analytics and value to flow directly.

However, there are questions about the circumstances in which a smart contract will be legally binding. There are various issues relating to contract law that need to be addressed such as: legal verification of digital signatures versus ink and paper signatures; how contracts, formed by code, can be interpreted/understood by courts; whether UK courts can have jurisdiction over smart contracts. The Law

Commission of England and Wales will publish a scoping study looking at how current law is, or will, be applied to smart contracts, later in 2021.

6. Opening New Revenue Streams

Blockchain technology also provides artists with further opportunities to monetise their assets and especially their brand. Merchandise product sales to fans has been a good source of additional revenue for many artists at live events and on websites. Blockchain technology now provides new ways to explore this even further.

ANote Music, a Luxembourg-based company launched in 2018, uses a blockchain-based platform that gives artists a new way to access capital by trading their music royalty shares in secondary markets. ANote's website states that the company opens market access to music royalties and unites investors and fans with publishers, artists, record labels and catalogues across one platform. This initiative provides artists and rights holders with a way of establishing monetary valued assets even if they are not generating income from them. Song assets can become collateral and a way to attract additional investment for new projects.

Tokenisation is another way in which blockchain technology can be used to increase the opportunity for artists to boost revenue from their assets and their brand is by creating monetary incentives for music fans, making the whole experience more interactive and rewarding. Choon, for example, offers listeners rewards for curating personalized playlists, and Viberate rewards fans with its native VIB tokens for contributing to its database of artists, venues and events. The Inmusik platform has a similar system that rewards users with Sound Coins (\$OUND) to curate artist rankings.

Tokenised monetary systems can cut out middlemen, but valuation is volatile, and some countries and markets are hostile to them. Organizations may also have to ensure that the sale of tokens is limited to buyers in specific jurisdictions to avoid illegal use such as in China, where it was recently reported by Reuters/BBC that all crypto-currency transactions are now illegal.

7. Conclusion

Blockchain technology is proving to be both disruptive and transformative in how it is impacting the music industry. It is clearly decentralising, simplifying and commercialising music copyright data by cutting out intermediaries, meaning that artists can get paid more, faster and more accurately. In addition, it is providing new mechanisms for artists to monetise their songs and brand, increasing the value of their work and harnessing their fanbase. However, the immutability and transparency that blockchain provides with decentralization, security, privacy, and cryptocurrency are hugely advantageous, they also pose legal challenges.

Balancing regulation with enterprise and technology that offers much needed solutions needs to be carefully considered. The ongoing legal assessment of how laws will apply to companies operating blockchain, is probably the biggest consideration for the music industry. However, once this is worked out, blockchain looks like it will be revolutionary in changing how the music and entertainment industries commercially exploit and administer intellectual property, and ultimately how rights owners, artists and songwriters are compensated.

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