

Cover sheet

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Name: Esther Cole (1809407)

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Blockchain

Legal & Business Affairs – BMTY7002

MA Music Industry Entrepreneurship

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1.0 Abstract

This paper explains the definition and explores the commercial use of Blockchain. The paper critically explores and analyses the potential of blockchain technology in the music industry, understanding the importance of intellectual property protection and the legal benefits and implications that blockchain technology may have on the industry.

2.0 Chapter 1: Blockchain

2.1

What is Blockchain?

Blockchain is a technology that was originally invented to provide a way for people all around the world to gain a more secure access to cryptocurrencies (Ammous, 2016). “Cryptocurrency is a medium of exchange, created and stored electronically in the blockchain, using encryption techniques to control the creation of monetary units and to verify the transactions of funds” (Blockgeeks, 2018).

Blockchain has been referred to as a new internet and allows digital information to be circulated without being copied. It operates as a distributed ledger that is completely open to anyone and stores data in blocks and links them together to form an interconnected unbreakable record. Identical copies of the chain of data is hosted by a peer to peer network (P2P) and stored on millions of computers globally which means that its records are public and easily verifiable. Transactions are verified and the blockchain is updated via a P2P network of nodes who work voluntarily with an incentive to earn cryptocurrencies. It is unlikely for anyone to be able to alter any information in the blockchain because they would need to alter every block in the chain, redo the proof of work for each block and do the same to at least 50% of the copies within the network (Simply Explained – Savjee, 2017).

“When a transaction is confirmed, it is set in stone. It is no longer forgeable, it cannot be reversed, it is part of an immutable record of historical transactions.” (Blockgeeks, 2018). This is a phenomenon as Blockchain presents the potential to prevent transactional fraud, which is something nobody wants to experience. Blockchain is a decentralised system which means that there is no centralized version of any of the information, which is believed to provide access for hackers to corrupt the information.

2.2

History

Initially, the name given to the project supporting Bitcoin, a digital currency created by Satoshi Nakamoto in 2008, was Blockchain Technology. The blockchain operation that was supporting Bitcoin was invented so that when a transaction was made between two parties, that transaction would be announced to all members within the network; these members are called nodes and are the force that help the blockchain to evolve (Ammous, 2016). This was a way to decentralise the system and to eliminate fraud. “Blockchain provided the answer to digital trust because it records important information in a public space and doesn’t allow anyone to remove it. It’s transparent, time-stamped and decentralized.” (Marr, 2018).

Blockchain was the technology that engineered Bitcoin. However, since its debut, it has grown to become a global technological phenomenon. Its development over the years has sparked interest for potential use in the financial industry as well as in the educational and manufacturing industries. For some time, many people believed that Bitcoin and Blockchain were a single connected product. However, people began to realise that it was not and that blockchains could in fact be used outside of cryptocurrencies. They began investing in blockchain technology and discovered other ways the system could be used, which all in all began to separate Blockchain from Bitcoin (Marr, 2018). Now, approximately 15% of financial institutions around the world are using or are attempting to use the technology Blockchain (Shen, 2016) and many business people are making investments and looking into ways that blockchain technology can impact insurance, healthcare, transportation and contract management just to name a few (Marr, 2018).

In 2015, a more flexible blockchain was launched called Ethereum by Vitalik Buterin. Ethereum could record transactions for other assets besides currencies, such as smart contracts and loans. (Ethereum, 2015). In the last 10 years, blockchain has been one of the most revolutionary emerging technologies in the world and hundreds of businesses have shown interest in the technology.

2.3

Commercial Use

The above research explains that blockchain has developed from being the technology that supported the digital transaction of cryptocurrencies to a powerful technology that many businesses in a plethora of sectors believe can have an impactful effect. Below are some of the commercial applications that use blockchain technology.

BITCOIN

Blockchain acts as a “shared public ledger on which the entire Bitcoin network relies”. All of Bitcoin’s verified transactions are encompassed in the blockchain and enable a secure and reliable way for Bitcoin wallets to calculate their spendable balance and ensure the spender owns the Bitcoins they are using (Bitcoin, 2019).

Although Bitcoin declare themselves as reliant on blockchain and praises its capabilities, others argue that their reliance on the technology is not because of its speed or cost-effectiveness but rather because it eliminates the need for third party governing. Some research suggests that blockchain is significantly slower and more expensive than using a centralized platform for clearance, and that “Visa & Mastercard clear 2,000 transactions per second while Bitcoin can only clear seven” (Ammous, 2016).

Bitcoins can be used on the internet and there is no need for a bank, which opens the door for anonymous purchases. The system is decentralised, so accounts cannot be frozen by administrators or by law, which creates fear that "Illegal stuff will be a niche for Bitcoin," (Greenberg, 2011). There is also the belief that recording transactions centrally will always be more competent and resourceful (Ammos, 2016). However, Rusty Russel, a software programmer who is well known for his involvement with the development of the Linux Kernel system, specifies in his Ted Talk that although he is unsure of the future of blockchain, he still has incredible high hopes for its impact and believes it has the power to change the world (TedxTalk, 2016).

DOCUSIGN

DocuSign uses the blockchain method of smart contracts to allow customers to sign agreements in relation to leases and insurance policies by the signing click of a button. DocuSign integrated with the Ethereum blockchain, and this system enables the evidence of a DocuSigned contract to be mechanically forwarded to Ethereum. This method of signing agreements ultimately simplifies the leasing process but also significantly reduces the time spent on obtaining the agreement (DocuSign, 2019).

According to a Harvard Business Review, smart contracts could possibly be the “most transformative blockchain application at the moment.” As long as the negotiated conditions are fulfilled, smart contracts such as DocuSign automatically release assets such as car leases in the case of DocuSign (Iansiti, M. and Lakhani, K, 2017). The profoundness of smart contracts comes from its potential to automatically release payments at the verification of a shipment being delivered. This could be confirmed through blockchain's systems, GPRS tracking or other methods. However, although this seems impressive, there is still a measure of concern regarding the health of the current structure. If contracts and asset releases become automated, what would happen to the traditional structure and roles of lawyers and accountants? However, DocuSign have collaborated with the blockchain system and many other businesses are also getting on board. Despite the strong interest, technologies such as smart contracts take a great amount of time, knowledge and coordination to design and may take a significant amount of time to develop.

3.0 Chapter 2: Music Industry, Intellectual Property and the Blockchain System

3.1

Intellectual Property and Music

According to the World Intellectual Property Organization, “Intellectual property refers to creations of the mind: inventions; literary and artistic works; and symbols, names and images used in commerce” (WIPO, 2019). Although some people like Edward Young, a British Poet from the 1700s have argued that “products of the mind deserved greater protection than mechanical inventions” (May and Sell, 2007) having only an idea for something is still not intellectual property and must be to some degree exclusive and of physical creation. For example, an idea for a song would not be intellectual property but lyrics or chord progressions would be.

When a person has either created or bought the rights to a creation then it is owned by them. However, there can be multiple owners for intellectual property as intellectual property can also be sold and bought. (Jajpura, Singha and Nayakb, 2017).

It is easier for a person to take legal action against a thief if they have intellectual property protection. There are several different types of intellectual property protection, for example, design right, registered design, trademarks and patents. However, for music creators the most likely protection to use would be copyright protection. This type of protection covers creations such as, films, photography, writing, and sound recordings. (Drahos, 2016).

3.2

Intellectual Property Law and the Music Industry

The development of the internet, digital technology and communication has significantly changed the way we access music. It was reported by Statista that “CD album sales in the United States have dropped by 90 percent since peaking in 2000 and are currently at their lowest level since 1987” (Richter, 2019). The power of the internet has simplified and made easier ways for creatives to make, promote and sell music and has also made it much easier for users to access and listen to music. However, because of the extensive development of the internet and current platforms, it has enabled opportunities for individuals to access creative work unlawfully, which therefore infringes the copyright protection on creative work. (Demers, 2006).

The music industry is greatly affected by copyright infringement because intellectual property is the foundation which holds the industry up and together. When creative work is copyright protected, it can be exchanged or licensed for a charge which gives the industry the means to keep creating. The music industry is therefore invested in discovering resolutions to stop more damage to the industry by copyright infringement (ACM, 2017) which many believe is the need for new legislation such as Article 13.

Although some may argue that even if there were no copyrights people would still make music, Patrick Rackow, a business tutor and legal consultant from the Academy of Contemporary music (ACM), believes that “it is copyright that allows people to make a career out of music” and make money (ACM, 2017), so protecting music from being used or copied freely by others is extremely important to a creative in the industry. The current system of creatives receiving payment for their work through royalties via a royalty collection agency can be quite unreliable for some. Although, releasing music and users accessing music is much easier now than ever, and although artists receive a payment for each time their work is played, failing to properly match songs with their creators leads to unclaimed royalties and a loss in revenue that can affect everyone from big labels to independent artists. If the metadata on a track is incomplete or incorrect, rightsholders may not get paid, which is very inconvenient – especially for an artist who is still up and coming. (Lee, 2018). Blockchain however, may hold the solution for some of the issues that the music industry face concerning intellectual property protection and monetisation.

3.3

Blockchain and the Music Industry

Blockchain, according to the above research has the potential to create a healthier music eco-system. With the smart contract feature, blockchain can enhance the distribution of revenue to be more efficient and effective by including in the blockchain, details of revenue shares between rightsholders. The blockchain system can also create a speedier way of contacting rightsholders and those involved would be able to receive payment straight away, rather than waiting several months for one payment like they do now. This can also be done directly and without third-party agencies. Blockchain can also be used to enable unique interactions between artists and their fans. Here are some examples of artists and companies that are using the blockchain system to impact their careers and the music industry:

DOT BLOCKCHAIN MEDIA

Dot Blockchain Media uses blockchain technology to gather and record information rather than cryptocurrencies. Creators, labels, publishers, aggregators, digital service providers and distributors are able to cooperatively share and obtain information about songs and artists they work with. The system helps to correctly credit songwriters and performers and for the right data to be attached to their music wherever it is played - this way they are always credited and paid correctly. This in effect should create a system that matches the speed of the digital era that we are currently in. (Dot Blockchain Media, 2019).

MUSICOIN

Musicoin is a blockchain music streaming service that “supports the creation, distribution and consumption of music in a shared economy”. They make the claim that artists will receive higher rates of pay per play of their record compared to other streaming platforms, although the service is free and uninterrupted by adverts. They claim to have accomplished this by their execution of the Universal Basic Income Model which is a model that generates “an unconditional, regular payment made to every citizen of a country or territory, with some differences in amounts by demographic factors like age” (Goulden, 2018). Musicoin is a decentralised platform and allows music to be available for everyone with secure and transparent transactions and because there are no third parties involved, the artists get to keep 100 percent of the revenue from their streams. (Musicoin, 2019).

BJORK

Björk combined blockchain technology into the release of her album ‘Utopia’ and was one of the first major artists to do so. Using cryptocurrencies, fans were able to purchase her album and when fans engaged with her social media platforms, they had the chance to win rewards in the form of “audio coins” which they could use to purchase merchandise. (Lee, 2018).

These examples support the idea of blockchain for music and present great potential in providing copyright protection through blockchain’s ability to create irreversible and unbreakable records of information. It also presents great potential in providing revenue to artists, directly, instantly and with transparency.

3.4

Blockchain – Cons for the Music Industry

Many believe, and research tells us that blockchain technology can help creatives protect copyright of intellectual property and receive instant and direct payment for their work. However, some may have doubts about this new technology that is rising in interest across borders.

The blockchain system is irreversible after confirmation and transactions cannot be reversed or refunded by a single individual. Therefore, if a hacker was able to compromise a person’s platform with fraudulent activity, there is “no safety net”. (Blockgeeks, 2018). Research says that no data can be corrupt because of its verification process by all parties involved. However, this may not always be useful. It is not certain that errors will not occur and there will never be a need to be revise something.

Although it is exciting to imagine a world that encompasses transparency, with databases that are open and cannot be corrupted and contracts that are digital and coded with a digital record and filing, some may still have concerns relating to data privacy. With everything located in one place there is the issue of content exposure. How much information will a person be comfortable with the public viewing?

In a Harvard Business Review by Iansiti, M. and Lakhani, K (2017), it suggested that although there is great potential in blockchain technology, many governance, technological and societal barriers would have to fall. In the case of music, would there be any need for royalty collection societies or even labels? If the music industry implements the blockchain model and focuses on direct distributions, artists may no longer need the help from label services for royalties and brand partnerships. Artists would now be able to more effectively handle the business side of things independently, which is good for their careers, however, not so great for the rest of the industry. And although research shows that blockchain has the potential to help artists to receive deserved compensation and to interact with fans on a new and different level, will music labels and other parties of the music industry embrace blockchain or rather do everything to stop the initiative and stick with the current traditional way of doing things? (Lee, 2018).

4.0

Chapter 3: Conclusion

The blockchain system is based on principles of decentralisation, transparency, speed, cost effectiveness, integrity and security. Many industry relevant companies have shown interest in the initiative and are taking steps to research and implement the system and technology into their business. Some of these companies are Spotify, ASCAP (US), SACEM (FR), PRS For Music (UK), International Standard Recording Codes (ISRCs) and International Standard Work Codes (ISWCs).

Spotify proclaim to be “very much a part of this community, a champion of transparency and open data for artists” (MBW, 2017), and to follow up on this, launched a blockchain research project, with hopes to improve their data management and help improve the health of the music industry. (MBW, 2017). ASCAP, SACEM and PRS For Music are working together to sample a copyright management system using blockchain technology that will systemise links between ISRCs and ISWCs.

Research supports the claim that blockchain has great potential for all markets, but in particular, the music industry. Blockchain has the prospective to be an efficient and effective system, one that could drastically reduce the costs spent on third party avenues and increase revenue for artists. However, it is strongly recommended that businesses, entrepreneurs and creatives take on the blockchain innovation with a clear understanding of the effects that it may have on the economy and the industry. More industry data to support the idea that a music blockchain system will work is needed.

5.0

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