

Legal & Business Affairs (BMTY7002)

Lecturer: Ian Penman

Element 2 (Essay)

Jack Smith

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A Critical Evaluation of Blockchain Technology and its Usefulness to the Music Industry

Interest in blockchain technology has fluctuated over the years, with many impressed at its potential applications to the music industry. This essay will offer a critical analysis of the two main schools of thought with regards to blockchains potential benefits to the music industry. Section one will provide a thorough critique of the arguments presented by those who see a future in which blockchain technology removes the needs for intermediaries such as record labels and collection societies. The second section will evaluate the arguments presented by those who see the potential for blockchain technology to enhance the efficiency and accuracy of the modern industry.

Blockchain Technology and Industrial Disruption

One section of Blockchain supporters can be effectively categorised as the ‘disruptors’ (Raine, 2017, p. 38). This group shares certain beliefs with other blockchain proponents, although they differ in that they believe that the technology will render intermediaries (record labels, collection societies etc.) obsolete (Beaven & O’Dair, 2017). In the most basic terms, blockchain is a decentralised distributed ledger. Data inputted onto a blockchain is unalterable and enables one to trace transactions across the blockchain through a secure timeline of actions (Raine, 2017, p.38). Disruptors believe that it will enable fans to strengthen their relationships with artists they support, as they will be able to purchase music straight from the source (Rosenblatt, 2019). Smart contracts are automated codes which allow direct licensing of copyrighted materials on the blockchain (Levi & Lipton, 2018). According to disruptors, this technology will allow per-to-peer exchanges of data, whilst ensuring that creators are paid automatically for the use of their work (Dickson, 2016). Imogen Heap provides an example of an early experiment with such technology. Any time her release, ‘Tiny Human’, was played, herself and each participating creator was paid almost instantly (Beaven & O’Dair, 2017; BBC 4, 2018). Disruptors paint a very two-dimensional picture of blockchain. Most of the solutions they offer have already been solved or are regarded as not needing solving (Rosenblatt, 2019).

The digital revolution brought with it a number of challenges, including an explosion of millions of lines of data every day (van Rijn, 2018). Currently, copyright data exists on a large number of databases across the globe. Disruptors argue that a blockchain based, decentralised ledger would make it easy to locate and update a given songs metadata (Beavin & O’Dair, 2017). This would increase the efficiency of the music industry (Gheorghe, 2018). This argument is unrealistic. A number of start-ups have begun to experiment with blockchain technology. The emergence of new firms ends up exacerbating the issue that they are trying to solve; fractured data (Gheorghe, 2018). In this case, it is clear that particular beliefs about how best to execute this technology makes the utopian

future disruptors envisage unattainable. These arguments rarely address the fact that the idea of a global database is not novel. The Global Repertoire Database (GRD) was the first global effort to create an international database of all recordings. Its user base spanned 6 continents and was formed of over 80 organisations (Gheorghe, 2018). The project collapsed in 2014, leaving behind a debt of over \$13.7 million (Beaven & O'Dair, 2017). Maria Forte, who worked on the project, said that as more pieces of information were added, the system became increasingly difficult to organise and manage (Dredge, 2016). The reason for the project's failure was a lack of funding and information which came about as the collection societies began to pull away (Gheorghe, 2018). Any successful database will rely on a huge amount of data in the first place (Dredge, 2016). This is corroborated by Michael Raine (2017), who refers to this phenomenon as "The Network Effect". Only the 'middle men' have the required level of data to give any sort of global database a chance to have a meaningful impact on the industry, and they are unlikely to invest any time or money into projects who cannot provide them with an incentive (Lin, 2017).

A significant limitation to blockchains widespread adoption is disruptors' advocacy for cryptocurrencies, which they say is useful because it supports micropayments (Dickson, 2016). eMusic for example, offers listeners 'tokens' at a base price of \$0.39 per token, which they can use to purchase music from the platform, directly supporting the artists they love (Garner, 2020). There are a number of problems with this. Firstly, there is an inherent distrust in cryptocurrencies amongst the general population (Raine, 2017). An instant association is often made between the notorious Silk Road black market and Bitcoin. There is also the question of consumers relationships with artists and the music they produce. Social media has brought artists and fans closer than ever, and so there is little appeal in 'buying straight from source' (Rosenblatt, 2019). Furthermore, the subscription-based model has become the norm, while blockchain is "fundamentally transactional" (Dredge, 2016). The token-based system offers little change to the digital download model. The evidence suggests that people do not care about music ownership (Rosenblatt, 2019). Beaven and O'Dair (2017) highlight the monumental shift that would need to take place to get people to directly purchase music on a mass scale.

A final point to explore is the necessity of intermediaries, regardless of whether or not blockchain solutions become a reality. Liability is an issue when you have a decentralised system. Blockchain streaming site Audius has caused concern amongst rightsholders, who possess the exclusive right to distribute their content (Spinello, 2019, p. 114). Audius has no content ID tool and no way to remove infringing material from their platform (Dredge, 2019b). Conversely, the major DSPs are all entities who can be contacted when concerns about infringement arise. It is therefore difficult to see how to operate without such entities. Intermediaries will also need to remain in place to perform the functions that blockchain is unable to replace (Beaven & O'Dair, 2017). Breaking, plugging and marketing

artists remain crucial roles which could not be performed on a global scale without the input of the record labels (Gheorghe, 2018).

Blockchain Technology and Industrial Enhancement

The second cohort of specialists view blockchain as a way to ‘clean the pipes’ rather than replace them (Raine, 2017). Three distinct paragraphs will investigate the way that blockchain may help to solve the industries three major problems; the availability of accurate copyright data, the speed in which royalty payments take place, and the transparency of the value chain (Beaven & O’Dair, 2017). Through critical analysis of these arguments, we can conclude that blockchain will not provide an overarching solution to every major problem of the music industry (Cooke, 2017). Nevertheless, its qualities may be utilised to increase the efficiency of the way in which data is handled whilst improving the transparency of the industry. Any meaningful impact from blockchain would require the widespread application of established players (Manju, 2018), of which there is no guarantee.

There is a general consensus that the music industry is dealing with a major copyright data issue (Cooke, 2019a). By the first half of 2017, streaming accounted for 62% of the U.S. recorded music market, bringing with it, billions of lines of data (Wladawsky-Berger, 2018). The major issues are caused by incomplete copyright data (Cooke, 2017) and the incompatibility of the various databases that copyright data is stored on (Forde, 2019). In addition, music copyright is inherently complex. You have two types of copyright, each of which brings its own bundle of rights (Gheorghe, 2018). Each song and recording can have many different stakeholders and the possibility of accurate payment for everyone involved requires each party to input the correct metadata, which is unlikely given that there is no standard format (Deahl, 2019). This is an issue which needs addressing as it’s estimated that around 20% of streaming royalties go missing, unmatched or unpaid (Coldrick, 2019). This is not just a problem within music. Fitness brand Peleton were sued in connection with profiting from the works of artists without their permission. Peleton acknowledged that while it tries to acquire the necessary data, the fact that the small number of licensors are largely unreachable means that they are unable to acquire the rights to certain songs (Ingham, 2019a). Steps have been taken to try and improve the situation. PRS, GEMA and STIM formed the ICE coalition to merge databases (van Rijn, 2018) and the digital team at Warner is growing at a rate faster than any other department to deal with these issues (Homewood, 2019). Blockchain technology brings a number of qualities which may be able to aid in the fight to improve data. As a decentralised database, all those who participate are able to add information to the database. The system is spread across nodes and when information is updated, it is updated in real time across every other participating entity (Cooke, 2015). Not only copyright information, but also lyric, music video artwork etc. information could be embedded in the metadata (Beaven & O’dair, 2017). FUGA have already demonstrated some success in this area after

partnering with Verifi Media. Artists are able to utilise a variety of tools which make it easier to track their material (Paine, 2020). Developments in this area could go some way in levelling out the pyramidal structure of the music industry, which currently rewards the top earners through notorious black box payments (O'Dair & Owen, 2018). There remains, however, the significant issue of scalability. George Howard, a blockchain 'disruptor' argues that the reason we are yet to see successful blockchain solutions is because people ask too much from the technology (Raine, 2017, p. 39). An analysis of Bitcoin in 2017 showed that the blockchain was able to administer between 3.3-7 transactions per second. A blockchain capable of handling the level of data generated by the music industry would need to administer around 30,000 transactions per second (Rosenblatt, 2019). It is clear that more research is needed, although it is a positive sign that groups like the OMI continue to generate industry support (Williamson, 2016). Given the behaviour of the 'Hype Cycle', it is likely that any meaningful change will likely appear in the next 5-10 years (Gartner, 2019). In addition, blockchain will never solve the 'garbage in, garbage out' problem. Any blockchain is only as good as the data that is put into it. A lot of songwriters don't understand copyright, and therefore don't understand the importance of metadata (Deahl, 2019). This can only be solved by the education of artists (Cooke, 2017). This is far simpler to implement and arguably more urgent. I would therefore suggest that this should be the top priority of the music industry.

Poor data management is intrinsically linked to slow royalty payments. This is not as much of an issue for artists. Warner, for example, now offer a platform whereby artists can see instant royalty data and are able to make monthly withdrawals (Ingham, 2019b). For songwriters, the situation is very complex. Part of the issue is that collection societies pay-outs are out of sync with the DSP's (van Rijn, 2018). The process is further delayed as more intermediaries and international regulations come into play. Payments can take years and be heavily diminished (Beaven & O'Dair, 2017). It has been suggested that the speed of royalty payments is not a serious issue because many creators receive advances for their work (Beaven & O'Dair, 2017). This is an unfair position to take as it disregards the large portion of songwriters who receive no advances. An international blockchain would certainly streamline the value chain. It would be easier for separate entities to interact through one interface and would remove the inconsistencies which appear through the migration of data from one source to another (Rosenblatt, 2019). Smart contracts could be utilised to ensure efficient and accurate payments (Gheorghe, 2018). The limitations of utilising cryptocurrencies have already been discussed, however DotBlockchain founder Benji Rogers suggests that blockchain could be used to increase the flow of traditional currencies (Raine, 2017, p. 40). This increases the potential that it will be adopted for mainstream use, as is demonstrated by Teosto, who currently represent 330,000 Finnish composers and over 3 million international creators. A joint effort between themselves, BMAT and Revelator has demonstrated that rights holders are able to receive royalty payments within 24 hours (Coetzer, 2020). Efficient streamlining may lead to some intermediaries disappearing,

although there will always be a need for intermediaries to distribute and collect on behalf of artists (Rosenblatt, 2019). This is a positive and realistic change which would likely only leave those groups that add real value (Raine, 2017, p. 41).

The music industry is frequently criticised as having a lack of transparency. NDA's between labels and streaming platforms make it difficult for artists to understand where their royalties are coming from (Gheorghe, 2018). A lack of data means that certain parties can't see how well their music is performing, thereby removing their leverage in negotiations (van Rijn, 2018). Angelika Heim points out that a lack of transparency in certain circumstances is necessary to ensure that you are achieving the best deal (Malt 2017). However, this situation has led to a culture of inherent distrust between various rightsholders (Forde, 2018). As an open ledger, blockchain could help to alleviate the tensions which currently permeate through a lack of transparency. However, it is unlikely that this system would be adopted by those who currently benefit from inefficiency (Dickson, 2016). Major rightsholders such as PRO's and Record labels often benefit from muddled data and are under no obligation to explain royalty payments to artists or managers (Gheorghe, 2018). Managers and artists should be privy to that information as they are also rightsholders (Forde, 2018). It should also be noted that many people in the industry benefit from appearing bigger than they are and that even artists benefit from a lack of transparency (Beaven & O'Dair, 2017). As blockchains can be private or public with their own terms of use (Gheorghe, 2018) they provide the tools for diminishing opacity. It is therefore down to the players involved to decide how far they want to take this. The collapse of discussions to introduce standards of transparency across the industry suggest that there will be little progress made voluntarily. It is far more likely that this will come about through legislation (Malt, 2017).

Conclusion

It is clear from this investigation that an effective analysis of blockchain requires a distinction between those who see its benefits of disruption and those who view it as a tool of enhancement. Those who suppose that blockchain will remove the middlemen from the industry provide a number of flawed arguments to support their views. The 'network effect' observation highlights how important the data giants are to any successful blockchain venture. Anyone hoping to gain their support would need to demonstrate an ability to add value to them. The problems of fractured data continue to be pervasive and the creation of any global database appears unlikely given the continuation of emerging start-ups. A succession of unanswered questions surrounding funding and liability demonstrate how unlikely it is that blockchain could pose any serious threat to the composition of the music industry.

An analysis of blockchains qualities illustrates how the technology might be used as a partial response to some of the industry's most pressing issues. Scalability, transparency and the speed of royalty payments are all challenges that could be helped by blockchain technology. Further research is needed to improve blockchains scalability. The willingness of major industry players could also be a hinderance, although the participation of established players such as FUGA suggests that positive steps are being taken. Over a number of years blockchain technology could begin to play a larger role within music, although there are other problems which must be addressed differently. The issue of 'bad data' suggests that the greatest threat to creators' payments is the creators themselves. The education of those within the industry with regards to copyright and metadata is a crucial first step in increasing the fairness and efficiency of the industry. Finally, transparency is a challenge which will likely persist with or without blockchain. Lobbying of politicians for policy change will be necessary steps to take in the immediate future.

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