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Legal and Business Affairs

**Essay 1 – Blockchain and Intellectual
Property**

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

Intellectual Property law has been an integral part of the music industry since the very start of recording and distributing music. UK Music describes it as “the economic framework which underpins the music industry” (UK Music, 2017) as it enables an artist to licence their work and exploit it financially. In the last two decades, the digital era has caused the industry to change on a huge scale and this has brought with it several problems including an overly complex financial system, unlicensed sampling and consumer piracy which are taking revenue away from content creators.

Many people now argue that Blockchain technology can solve or minimise the damage from some of these issues and have started to build products and systems to initiate it. This has triggered a polarising debate as to whether it would be beneficial to adopt on a large scale. This essay aims to critically evaluate the use of Blockchain in the music industry, with a particular focus on its relationship with intellectual property law.

Music Copyright Law

Under current copyright law, a piece of music has two underlying copyrights which exist as soon as the song has been ‘recorded’ in some form. These are its musical works which is “a work consisting of music, exclusive of any words or actions intended to be sung, spoken or performed with the music” and sound recording copyright that covers “All or part of a literary, dramatic or musical work, from which sounds reproducing that work or part may be produced” (Practical Law Media & Telecoms, 2017).

With the rise of streaming, the music industry is becoming more service-orientated. Consumers are preferring to pay a small subscription fee to a streaming platform, instead of purchasing music in a traditional sense. Therefore, it’s more important than ever for musicians to efficiently monetise their intellectual property. When an artist’s song is played on a streaming service, the service pays out royalties for the licensed use of a sound recording, the performance of a composition and streaming mechanical royalties. These payments will typically go through Record Labels, Publishers and royalty collection agencies before reaching the content creators. Advocates of Blockchain see the technology as an opportunity to simplify this process and make it more efficient.

Blockchain Technology

At a basic level, Blockchain is a digitised, decentralised, publicly accessible account of records as a database.

“A Blockchain is a distributed database, meaning that the storage devices for the database are not all connected to a common processor. It maintains a growing list of

ordered records called blocks. Each block has a timestamp and a link to a previous block” (Bovaird, 2017)

The technology is the foundation of crypto-currencies such as Bitcoin, which is making a huge impact on the financial industry thanks to its volatile changes in value.

If Blockchain is to solve any of the problems the music industry is currently facing, its implementation will have to deal with many conflicts of interest. As Ben Dickson explains, writing for TechCrunch:

“Music companies hate streaming services. Streaming services hate file-sharing services. And, most of all, artists and content creators hate virtually everyone else for making huge sums off their toil and feeding them the crumbs.”
(Dickinson, 2016)

Working with Blockchain has the potential to solve conflicts with a process that works equally well for everyone. However, there is also a risk that it may cause more issues if it is not aligned with the priorities of everyone involved.

Problems in the Music Industry

As it stands, the music industry has a complex financial environment where royalties have to go through many different channels, due to the way royalty payments work with IP Law (Figure 1). This causes issues, including an excessive length of time taken to get the artist paid and the potential of either paying incorrect amounts of royalties to the correct party, or paying a party who wasn't involved in the creation of the piece of music.

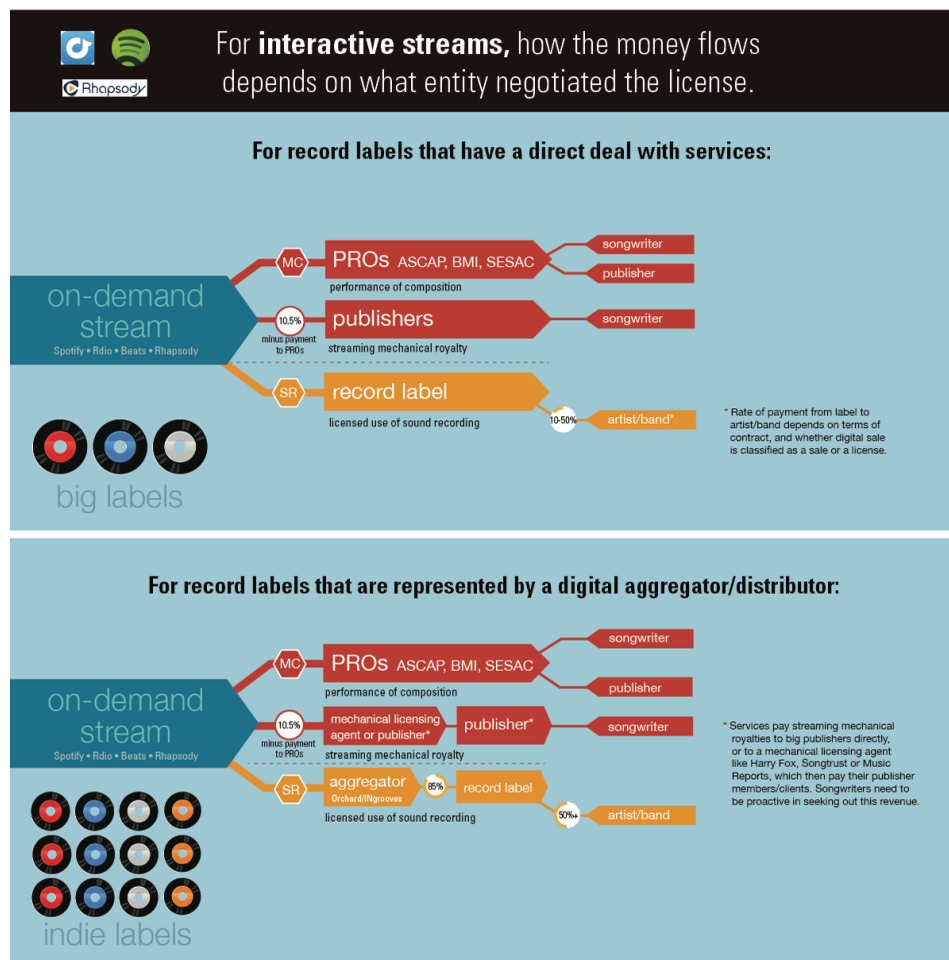


Figure 1 - ReThink Music 2015

Because of this complexity, problems can easily arise and people end up not being paid:

“Large pools of royalty revenue end up outside the artist’s reach in a so-called “black box”—where rightful owners of royalty revenue cannot be accurately identified because of a lack of an industry-wide system for tying usage to ownership.”
(Rethink Music, 2015)

Furthermore, even when an artist is getting a payment, it takes a long time and there’s no way to tell whether it’s accurate:

"Right now if your music gets played on the radio or in a restaurant or on a streaming service, it takes a minimum of 18 to 20 months to get paid, and when you get paid you have no idea if that is the right or wrong amount" (Yacik, 2017 quoting Panos Panay)

Other issues that have been causing problems recently include unlicensed sampling, and legal cases to do with plagiarism. Simon Frith notes that "by the end of the 1990's nearly all major publishing and recording companies had followed the lead of EMI and employed staff 'whose sole job was to listen to new releases that may have contained samples of its property'" (McLeod, 2013). In terms of plagiarism, many high-profile artists have been accused of releasing songs that allegedly infringe the copyright of others. Because ownership of creative works can be so hard to prove, "the music industry needs a central database with correct information, splits, metadata, both for cohesiveness within the industry and for information transparency to increase the efficiency and reliability of receiving payments" (Jacobson, 2017).

Blockchain Solutions

The utopian end-goal behind utilising Blockchain technology presents a system where everyone involved in the creation of a record is paid almost instantly every time someone purchases or streams their song through micro-transactions. Pioneers of Blockchain in music, such as Imogen Heap, are also hoping to gather data on the people who are listening to their music. In Heap's own words:

"We know less about what our songs get up to once they've left 'home'. What would I like to read on these postcards from our songs? Well, how many times it was played, by who and where would be a great start." (Heap, 2016)

In collaboration with Ujo Music, Heap started a project to release her song 'Tiny Human' through a Blockchain system. Their method of using Blockchain included the use of Smart Contracts on the Ethereum network that would trigger payments after a purchase: "*When people bought the song, the smart contract attached kicked into action and sent monies almost instantly to the digital wallets of the creators involved*" (Heap, 2016). Despite significant media coverage, the project only generated \$133.20 and consumers did not purchase the record because the system was so complicated. David Gerard gives an explanation of the user experience to purchase the song:

"You went to the page, clicked "Download", followed the instructions to create an Ethereum wallet, and went off to a Bitcoin exchange to buy bitcoins then exchange those for ether, as ETH wasn't widely traded directly to dollars at the time. Getting hold of the bitcoins required you either to send your money and a pile of government identification to an unregulated exchange [...] Once you'd done all this, you got a download key. The process was ridiculously glitchy and buggy." (Gerard, 2017)

Comparing this track purchase with iTunes, the user experience for Tiny Human is untenable, especially as the consumer does not benefit from using this process – the benefits are very heavily weighted to the content creators. A consumer will always make a purchase at the point of least effort and as long as iTunes purchases are simpler and quicker, it will always be preferable to a complicated system. Owsinski expands on this point here:

“Music fans don't consume a music format because it sounds better, they do so because it makes consuming easier. Look at the technology that's worked for the industry [...] they all make consumption more convenient! Can someone describe to me how that works with a Blockchain-based format? What's the consumer advantage here?” (Owsinski, 2017)

Although Blockchain seems to offer an efficient and exciting way for artists to get paid for their creation, upscaling the method significantly comes with challenges as it relies on everyone recording accurate metadata and also depends on the people developing the smart contracts to get their code exactly right. A guest writer in the Financial Times argues that Smart Contracts will always need some form of human oversight:

“Without human adjudication, we are left with hoping that code-authors will be able to “get it right” with the code in our smart contracts. But precise, safe, smart-contract coding is a challenge, and its difficulty comes with real consequences.” (Financial Times, 2017)

Unfortunately, the argument for human responsibility over these contracts presents an issue of time and efficiency – two of the problems smart contracts are meant to be solving.

Another issue of upscaling is the pure computer power that would be required to process all of these micro-transactions. The RIAA published statistics that put total streams at 140 Billion for the first 6 months of 2017 in the USA (RIAA, 2017). Comparing these figures with all of the individual royalty payments that need to be made for each track, the numbers quickly become astronomical. To include Digital Sales and Internet radio pushes the number of micro-transactions to be processed even higher. The technology available at the moment is simply not advanced enough to handle this many instant transactions at the same time. It would quickly cause a huge bottle-neck and slow down the process again. Whilst the concepts have promise, practical implementation seems to bring up unavoidable problems.

Legal Enforcement

For Blockchain to be fully adopted, a system would also need to be in place that allows enforcement of copyright law and a way to rectify mistakes. To take an example, an established artist may release a song which is streamed one million times in a week. The artist then realises that the Blockchain data was entered incorrectly and someone else is

being paid instead of them. The process of reattributing all of the micro-transactions would be extremely complex. Furthermore, there is no guarantee that it will be possible to change pre-existing metadata on the Blockchain if there is a mistake. Even if this will be possible, how does the industry decide who gets the authority to edit these details? Some form of authority also creates an attractive target for hacking; there have been several serious crypto-currency cases that have led to millions of dollars being stolen such as the hack on NiceHash in December 2017 (Lee, 2017).

Piracy

One of the most prominent legal implications of Intellectual Property is the unauthorised uploading of music to YouTube. It's extremely common to see the words 'No copyright infringement intended' in the description of videos that feature music the uploader doesn't own. In many cases, "the upload is a copy of the sound recording and nothing else" (Cummings, 2013). Conveniently for YouTube, the The Digital Millennium Copyright Act protects them from accountability for any infringements their users upload.

Various solutions have been attempted for this 'such as the International Standard Recording Code (ISRC) for sound recordings and International Standard Work Code (ISWC) for music works, these identifiers are often not linked properly for music releases' (Rethink Music, 2015). With the industry having adopted the ISWC and ISRC on a large scale, they have emphasised the need for completely accurate data to offer an efficient solution.

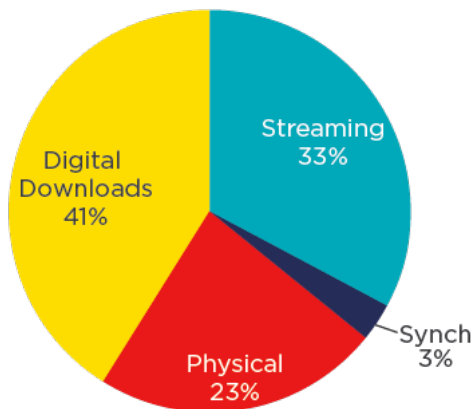
Whether Blockchain can be used to tackle piracy of digital music files is yet to be seen, however an interesting parallel could be found in the lawsuit Capitol Records brought against ReDigi in 2013. Samuelson (2013) explains that 'ReDigi provides a platform through which owners of digital music purchased from iTunes can resell that music to other music lovers.' ReDigi lost the case, due to 'secondary infringement of Capitols common law copyrights' (Capitol Records, LLC v ReDigi Inc, Filing 109, 2013) with the judge ruling that they were in violation of copyright law. At the time of writing, the case is still being appealed with a verdict expected in April (Justia, 2012).

Despite losing the case, the technology behind ReDigi ensured that the files being bought and sold had the correct ownership. To use ReDigi, a user was required to install the program onto their device. When they 'sell on' a track, the system ensures that the file has been deleted from their device as they are no longer the 'owner' and the track has been passed onto the buyer. An infallible database that actively records song ownership as transactions take place appears very similar to some of the Blockchain solutions that have been mentioned above. If Blockchain is going to be used to tackle piracy, this sort of structure on a wide scale could be an interesting starting point.

On the other hand, it could be argued that "streaming pretty much put an end to the piracy problem" (Owsinski, 2017) and introducing a Blockchain purchasing system might actually bring about a revival of piracy. Owsinski argues that getting paid for every play on a streaming platform is better for artists than being paid an initial fee once and nothing else.

MUSIC LABELS EMBRACE A RAPIDLY CHANGING BUSINESS

U.S. MUSIC INDUSTRY REVENUES 1H 2015



U.S. MUSIC INDUSTRY REVENUES 1H 2017

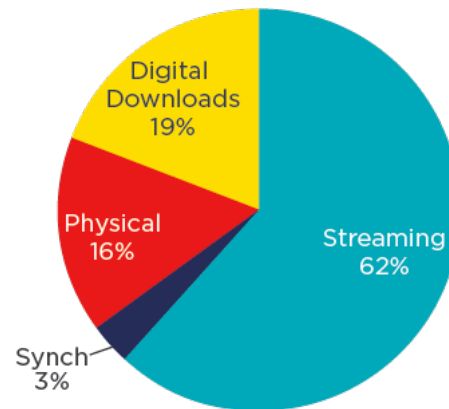


Figure 2 - RIAA. *The State of Music Mid-Way Through 2017*

As the trend continues towards streaming over digital purchases of music, the idea of purchasing music on a Blockchain system may become irrelevant. Ujo Music's 'Tiny Human' project may have proved that smart contracts on Blockchain can work with digital downloads, however the real test will be compatibility with streaming services.

Industry Adoption

If Blockchain is going to help the music industry and fully comply with the law, mass adoption is absolutely essential. The Open Music Initiative is trying to introduce an 'inoperability' to the industry so that this mass adoption is possible (Open Music Initiative, 2017). The challenge they will face is getting businesses to be more transparent as Record Labels will not want to have their financial agreements with artists and streaming services as public knowledge. It would also not be possible to force them into an agreement:

"One of the barriers to the creation of any database is that it must be voluntary—under the Berne Convention copyright treaty, signatory countries may not require registration of international works in order to gain copyright protection. This removes any requirement to participate, meaning that any proposed database can potentially "offend" some constituent group, resulting in their withdrawal of support" – (Rethink Music, 2015)

If the industry sees an improvement in co-operation and transparency, this will pave the way for a technological solution to many of the issues that have been raised.

Conclusion

Although Blockchain is being heralded as the digital revolution of the music industry, it has significant hurdles to get over before it can be taken on including mass adoption, consumer benefits and technological restrictions. It also places too much responsibility into getting the technology exactly right and takes away any human involvement:

“While Blockchain puts forth some real advantages, there is one element that Blockchain or any other database will never have – the human element. The music business is a business of relationships, a business run by people who manage and guard the rights of the music. Therefore, we can only achieve a winning proposition if the business can implement the technology in a way that supports the structure of and the people within the music business.” (Jacobson, 2017)

For content creators, the desire for a system that processes payments quicker and more accurately, is understandable and arguably a long-needed progression for the industry. Whether this progression can be initiated through Blockchain implementation remains to be seen, however the fact that the technology has triggered a discussion into looking at making things better is a positive in itself.

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