



Legal and Business Affairs

BLOCKCHAIN

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Contents

1. Introduction
2. The Smart Contract
3. Potentiam
4. The Artists
5. Music on Blockchain
6. CryptoKitties
7. The Future
8. Conclusion
9. Bibliography

1. Introduction

In this Essay I will explain the definition, commercial uses and legal implications of Blockchain on the music and entertainment industries.

What new technology encapsulates more for me than the Blockchain, the potential for positive change for this struggling music industry. As such, I would like to discuss a concept that affects this game-changing technology in an actionable way that I feel would help everyone in the musical ecosystem. (Beer, Rahman, 2017)

Before Blockchain the only ways you could move money digitally was through a bank or Paypal although the money used was still government issued and controlled currency.

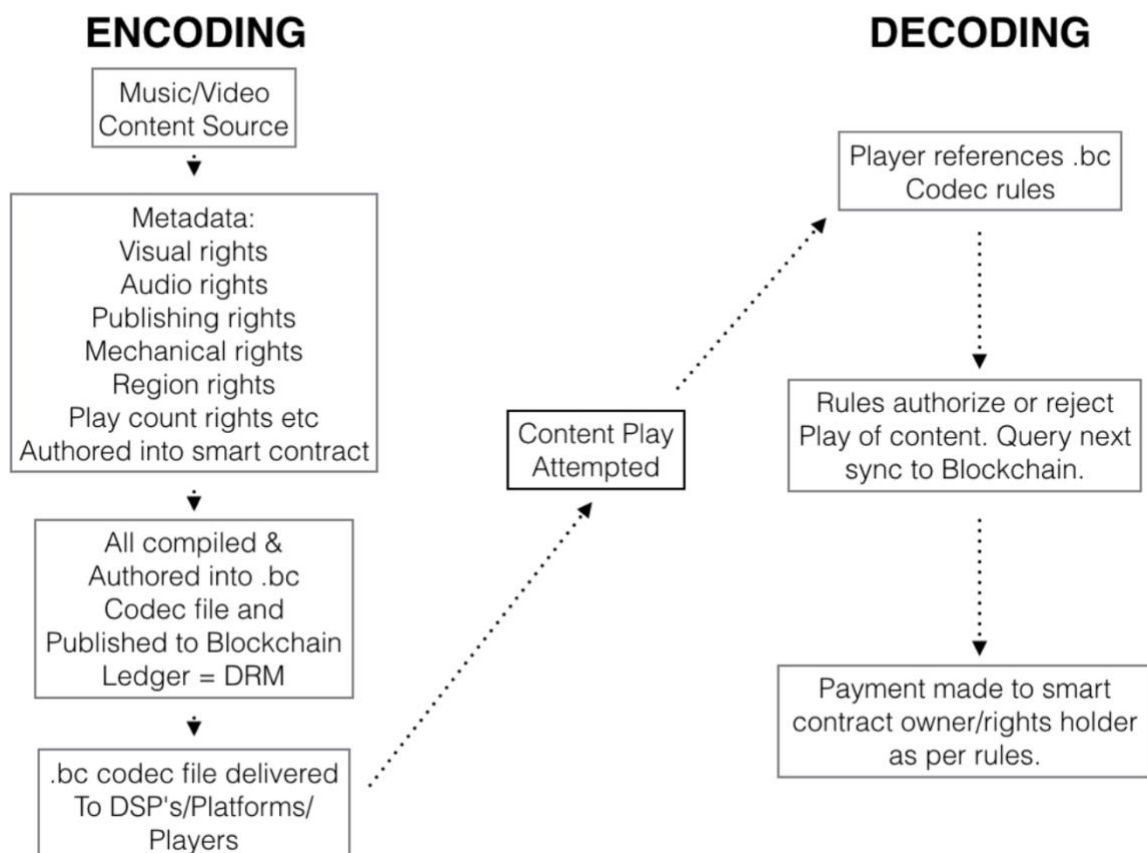
Blockchain is the distributed ledger of network technology that powers the online currencies Bitcoin, Ethereum, Stellar and more. Blockchain is a decentralised database that stores a registry of assets and transactions across a peer to peer network.

As a decentralised public ledger sitting on top of a peer-to-peer network, the blockchain can be used to store information without relying on any intermediary, instead relying on the participation of each peer in the network to create a completely decentralised database of cryptographic algorithms ensuring security and honesty. 'Creating an unforgettable record on the systems of everyone involved and receipts' (Venom, 2019)

2. The Smart Contract

Another incredibly useful feature for blockchains is the Smart Contract too. Because this database is based on a trustless framework, this makes it possible to build readable software or "smart" contracts (like existing APIs) that can communicate with the ledger and generate and resolve outcomes. For instance, if a song is played "x" number of times, "y" will be charged to "z." Or if a song is 25 percent owned by "a" and 75 percent owned by "b," then after "c" uses have occurred, a payment will be auto split along that line and paid out.

If you were to add basic, Smart Contract-readable information to the MVD set, then you could allow third parties to interact with the entire database requiring less payment slowdown from third parties and instantaneous proof of work could be done. Scenarios in which you could only be making the sum of the music you listen to. Or real-time transfers may occur on a micro-scale (another great function of Bitcoin).



3. Potentiam

Potentiam is a music platform governed by the users where the rewards are distributed between all those that bring value to it without the need for a middleman' (Beer, Rahman 2017)

Potentiam was created to give a voice to emerging artists, content writers in the music world and all those who strive to make it possible. Taking out the Middlemen, offering the same service at a fraction of the price thereby allowing the artists to earn more, and also importantly giving the public a chance to equally earn and benefit from proceeds of the music industry.

The current music business system concentrates power in the hands of very few middlemen, that is to say, record labels and their subsidiaries. Every year, Labels spend around \$4.5 billion in marketing and A&R, and in effect are still gateways between creatives and potential business success.

Not only do they decide which creatives are being marketed to a wider audience, but those lucky enough to achieve commercial success will be privileged to see 10 percent of the revenue generated from the sales of their creations.

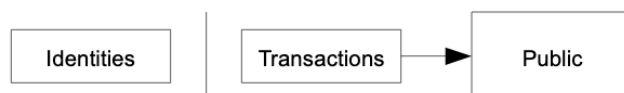
In short, the problem lies in the market framework itself.

The obsolete structures not only limit growth but also absorb the majority of the wealth produced by the industry.

Traditional Privacy Model



New Privacy Model



The chain of transactions present in the music industry from the use of middlemen will be replaced through the blockchain with the use of smart contracts (self-executing software contracts) that offer a safer, more accessible and more cost-effective solutions

a social network in which composers and performers can build their own accounts to advertise themselves, seek out collaboration from other artists.

A catalogue management system that allows artists to control their content, including related copyrights, created within or outside the Potentiam Core framework.

The Potentiam Core will consist of four central modules for delivery.
Digital sales, physical sales, licencing by Sync and royalty by P.R.O./broadcast.
A live performance module will also be built that connects performers with promoters. (Chaudhiri,2017)

As well as Bitcoin, Blockchain powers Ethereum.
Ethereum is the second biggest cryptocurrency.
Ethereum connects people directly through a powerful decentralized supercomputer.
Ether is the cryptocurrency created by the Ethereum blockchain as a reward for calculations performed by mining nodes, and is the only currency accepted in paying transaction fees.
Ether has the most liquidity in the cryptospace. Initially released on the 30th July 2015
Ethereum is a distributed computing platform and operating system based on open source, public, blockchain, incorporating smart contract scripting features.
It facilitates transaction-based state transfers to a modified version of Nakamoto consensus.

Nakamoto the founder of Blockchain released a White paper on the 30th October 2008 where he envisioned

‘What is required is an electronic payment system based on cryptographic evidence rather than confidence, allowing any two parties that are willing to deal directly with each other without the need for a trusted third party.

Transactions that are computationally impossible to reverse would shield sellers from fraud and standard procedures to guard buyers could be easily implemented.
In this paper, using a peer-to-peer distributed time stamp server to produce computational proof of the chronological order of transactions, we propose a solution to the double-spending problem.
(Nakamoto,2008)

4. The Artists

Imogen Heap, an English singer-songwriter, record producer and audio engineer.
On 5 October 2015, Heap released her single "Tiny Human" on Mycelia: an experimental music distribution platform using blockchain-based technology called Ethereum

“Mycelia and Creative Passport will forge a new system that will allow artists to finally see what works and what should be paid in a fairer, more transparent manner. Adoption rates matter, but artists have been waiting this long for the promising Heap reward and co. It's time we put the money where the mouths (and hands) of people are” (Armstrong, 2020)

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I conceptualized Creative Passport after a long, 23-year career of frustration due to the inefficiencies in the music industry, Imogen wanted all the data around songs out in the world for everyone to see any time they want it. Whether that's payment information, data around where the song was written, what gear a musician was using, or which musicians were on the record, who wrote it — all that.

Akon is an American singer songwriter originally from Senegal who has twelve Billboard Top Ten Hits to his credit including the popular single "Smack That" spoke out in support of decentralisation and blockchain based systems underpinning the nature of cryptocurrencies.

The rapper's comments come as his cryptocurrency project is gathering momentum for a pan-African digital currency to substitute fiat currencies, called Akoin. Akon had first revealed the initiative in June 2018 in the context of a Senegalese smart city project, arguing at the time that crypto could empower African citizens and bring security to the continent's currency system.

The next generation of music services will take advantage of technologies including blockchains to combat censorship. Decentralizing power of music distribution and ownership of content allows musicians, fans and members of the community the freedom to express themselves and interact directly with one another on their own terms.

This is not a mere vision or a manifestation. Companies and ventures already use blockchain to address some of the biggest problems facing the music industry. My business, Audius, is a decentralised music-sharing protocol and the first to provide a social music experience that connects artists and fans directly. Open Music Initiative uses blockchain to recognise producers of music so that they can earn their rightful royalties. Smackathon, a Pitbull-created competition, is working to bring music to the top open streaming services. (Huillet,2019)

5. Music on blockchain

So, what exactly does music on the blockchain mean? What would the industry look like? It will be a decentralized community of artists, fans and developers sharing and defending the world's music in accordance with the following principles:

1. Decentralization: Members of the network will operate it, maintaining control of their data. With no central authority, it will be censorship-resistant, secure and community-driven.
2. Open-source: Anyone can contribute ideas, build new clients or features, or host nodes on the network.
3. Aligned incentives: Everyone who contributes value is fairly compensated.

Musicians will be able to generate permanent and time-stamped records of their creative works, allowing publicly verifiable and unchangeable ownership of the material. With a network which is decentralised, content-addressed, and blockchain-secured, content can not be manipulated. If a maker elects the creation will stay alive forever. (Vennom, 2019)

6. CryptoKitties

Now that Warner Music Group has perfected streaming, producing \$2 billion in technology sales, the music giant behind Cardi B, Ed Sheeran and Bruno Mars has concentrated on blockchain, entering a \$11.2 million investment in Dapper Labs, best known for making CryptoKitties the viral blockchain game.

CryptoKitties, which allows users to combine (breed as they call it) exclusive digital images of kittens and exchange them.

In December 2017 Cryptokitties nearly broke ethereum when it caused transactions to burst overnight on the public ethereum blockchain. When problems with the transaction volume can be overcome,

According to Warner Music Senior Vice President of Business Development Jeff Bronikowski, the CryptoKitties platform, similar to bitcoin but for other digital assets, could be modified to create unique, tradable products featuring the company's celebrity talent roster.

Therefore, as part of the investment by Andreessen Horowitz, the Digital Currency Group, Union Square Ventures, Venrock and others, Bronikowski says that Warner Music's blockchain team will work with Dapper Labs to create digital assets using a new public blockchain revealed today, called Flow, that can handle transaction volumes many times more than ethereum, even while expanding on a number of the company's other blockchain projects.

It is not only Dapper Labs ' own success that is at stake, but the pole position in a rapidly escalating race to build economies that blur the line between digital assets and the real world, and the virtual world and real assets.

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"The key aim is to create new avenues where our artists' fans can discover their passion," says Bronikowski, who manages the creativity division of Warner Music, "and connect with the artists in new and different ways that they haven't done before."

While less than \$1 million has contributed to convertible defence, the involvement of the media giant is noteworthy for the size of the audience open to them. Last year Warner Music Group generated \$4 billion in revenue from ventures including collaborations with both Facebook and Instagram orchestrated by Bronikowski, enabling the social media sites to use Warner artists' music and images.

Warner's partnership with Dapper began in May when the global digital business manager of the music giant, Tiago Correia, met with the Dapper team at the Amsterdam Next Web Conference and set up a conversation about how blockchain could be used to directly connect the music giant's roster of artists to their fans in the digital world.

By using Dapper Lab's new Flow blockchain to prove the authenticity of a unique digital object (also known as a non-fungible token) such as digital album art signed by the real Cardi B, those objects will be able to accrue real value.

"When I was in college, you would go into someone's space and you would see 200 CDs and think, 'That guy is a big music fan.' And now you're just seeing someone with a music subscription service and some playlists," Bronikowski says.

"We think digital products and collectibles are a perfect way to express your fandom as people spend more time designing their identity in the digital realm."

In addition to Warner's work with non-fungible tokens, the media company is exploring how cryptocurrency could be used to allow fans to tip their favourite artists, and testing two separate blockchain systems to connect musicians directly with their fans without the need for intermediary distributors.

Dot Blockchain Media, based in New York, connects audio files and visual artwork together into a virtual album which can be passed to a new owner as well as proof of ownership.

A CryptoKitty called "Celestial Cyber Dimension" sold for \$140,000 during auction in May 2018.

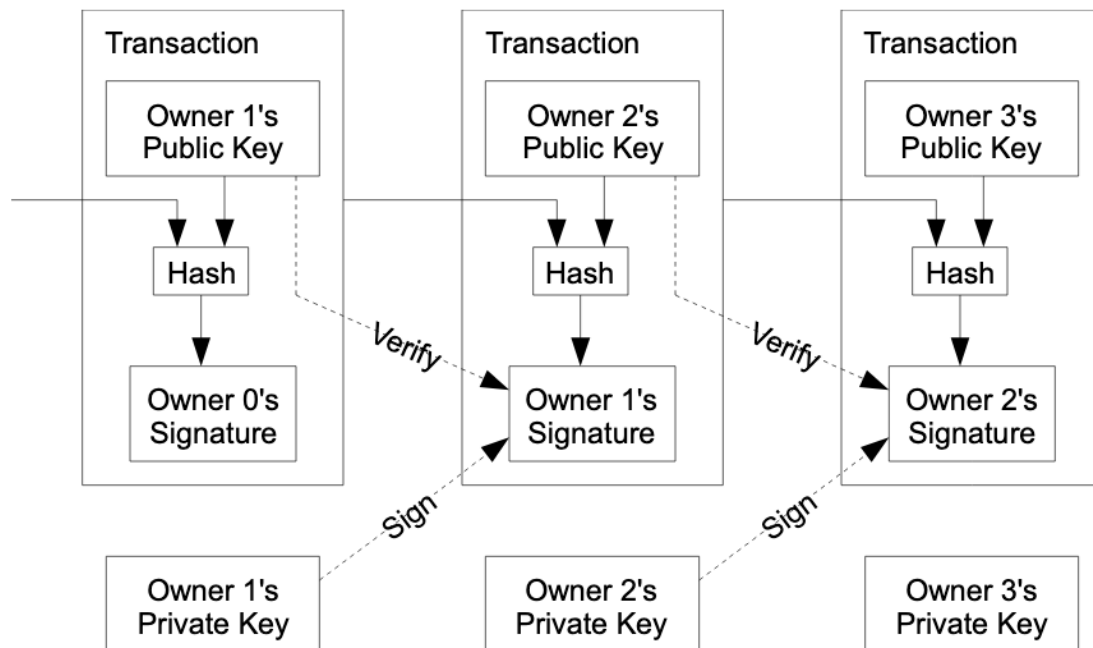
According to market data platform NonFungible.com, the average CryptoKitty sells for much less, at about \$2.05, and total weekly production is about \$12,500.

While the overall market cap for cryptocurrencies is around \$260 billion, according to CoinMarketCap.com, the overall market cap for non-fungible tokens is estimated at only \$101 million, led by ethereum-based Decentraland, which represents the lion's share of the valuation with a market cap of \$85 million, followed by CryptoKitties at a distant second with \$5.3 million, according to NonFungible.com.

"Non-fungible tokens will become the cornerstones of several real-world properties," says Daniel Kelly, founder of NonFungible.com.

"For example, copyright artwork, a deed to your house, a certificate of authenticity
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for your wedding rings or a university degree would all be top candidates for non-fungible tokenisation." (Rogers, 2016)



7. The Future

Information on how to spread the new flow cryptocurrency to future users are being held closely behind the lips. Options include the power-intensive mining process, like Bitcoin and its more transaction-friendly equivalent, Litecoin; via airdrops where users are rewarded with an asset, as Stellar does with the XLM cryptocurrency; or like Facebook's libra, tied to more secure assets to make it less attractive as an investment, but more useful as an exchange. Despite concerns that some cryptocurrencies that look more like shares in the underlying technology than money to be spent, finding the right balance between these options may give Dapper Labs an advantage in the rising tide of technologies designed to incentivize people to actually spend cryptocurrency.

8. Conclusion

In conclusion we discussed the definition, commercial uses and legal implications of Blockchain on the music and entertainment industries. Both positive and negative. I conclude that Blockchain is a positive step in the right direction for a fairer music industry.

Word Count 2,331

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