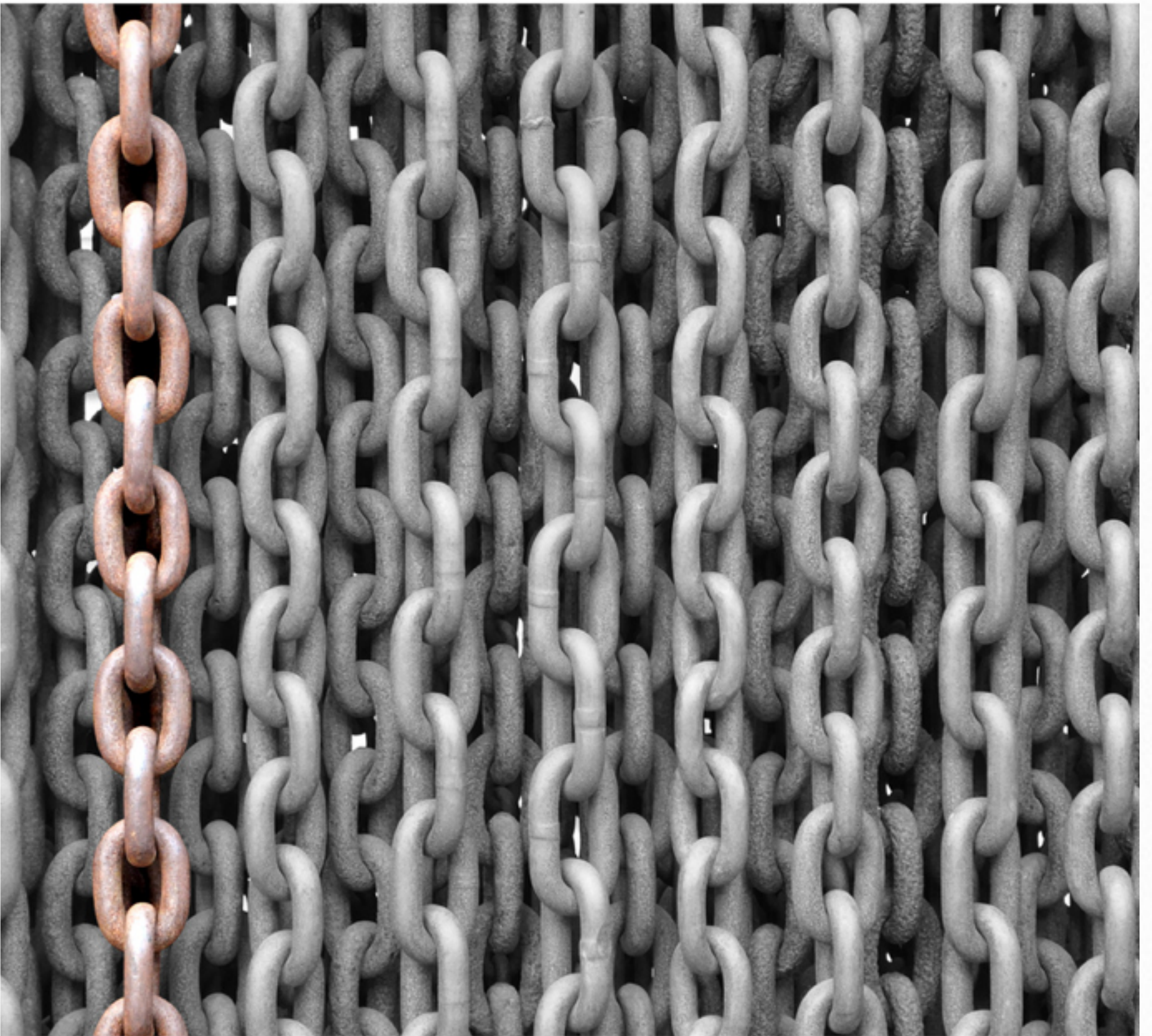


Music Ally

Blockchain: Music Without the Middlemen?



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Six questions about blockchain's potential for the music industry

1. How can the blockchain *really* be used in music?

A blockchain is a public record of all transactions that have ever taken place in a cryptocurrency like bitcoin. A new 'block' is added roughly every 10 minutes, listing all the transactions taking place during that time, with any change to the database requiring the support of more than half the currency's users for security purposes.

The music industry's understanding of this should not be overestimated. There are lots of people in the industry aware that blockchain technology is a thing that could be used for music, but rather less who understand specifically what those uses will be.

"The possibility here for us, in terms of the sorts of things that blockchain could sort out, are really quite varied," said Dr Jeremy Silver at our 'Blockchain: Music Without the Middlemen?' event in May.

At the most basic level, blockchain technology could be used to create a decentralised database of music rights ownership – from performers and songwriters to producers, labels and publishers – with that information travelling with any given digital track wherever and however it is being used.

That information could also be used to automate the division and distribution of royalties, as the US-based Rethink Music initiative explained in its Fair Music: Transparency & Payment Flows In The Music Industry report last year, using an iTunes download sale as an example:

"This money would be split between the two different works contained in the song, with a 9.1 cent mechanical royalty going to the musical work, and the remaining 90.9 cents going to the sound recording. Next, if the contract between the publisher and

songwriter specifies a 75/25 split of revenue from downloads, the publisher would receive 6.825 cents and the songwriter would receive 2.275 cents.

With an identical split at the record label, the label would receive 68.175 cents, and the recording artist would get 22.725 cents. The blockchain network could also further divide these 22.725 cents between the members of a band, if applicable. This entire process would take place in less than one second, allowing all parties to access their money immediately after it is generated.”

The pitch for blockchain is thus a mixture of speed, efficiency and transparency in the royalties distribution process, as well as potentially solving some of the music industry’s current issues with accurate metadata – particularly on the publishing side.

Musician Zoe Keating has described her vision of “a distributed ledger of music metadata” that could track not only the performers and songwriters but also



producers, session musicians and additional rights for any samples used for the recording. Other people pressing for the adoption of blockchain technology in the music world think this could spark a new wave of inventive digital services.

“It produces a way of creating low-cost, low-barrier-to-entry music services for dissemination and consumption, based on what the listener wants, as opposed to the standard ‘it’s £9.99 and you have to have it all’ approach,” PledgeMusic founder Benji Rogers told Music Ally in August 2015.

“That’s where the potential is staggering: consume what you want, and in the quantity that you want.”

2. How long will these ideas take to make an impact?

Blockchain isn't a 'jam tomorrow' solution, it's more likely a 'jam in a few years' time' thing. At our event, Dr Silver suggested it will be 10-15 years before the technology makes a significant impact in the music industry.

"The challenge is going to be that to make any of the projects that are currently underway really effective, they are going to need some degree of critical mass," he said. "A thousand flowers blooming? Actually, they're little green shoots and they probably haven't even budded yet, let alone turned into flowers."

"I agree with Jeremy: we're going to be looking at the long-haul on it," said industry consultant Maria Forte, whose experience working on projects like the Global Repertoire Database (GRD) and Radiohead's 'In Rainbows' album gives her a good sense of how long it can take to persuade the various elements of the industry to come together.

Industry consultant Mark Mulligan recently told AIM's Music Connected conference why blockchain's adoption within music will take time.

"Music rights is an absolute mess... Realistically, what could happen in a best-case scenario – or a reasonably optimistic scenario – is that you end up with a parallel alternative music industry emerging that maybe in five years time accounts for a few percentage points of the global music industry," said Mulligan.

"And that will be artists who started out on a YouTube and never wanted a label, or artists working with platforms like PledgeMusic... and if you align that with the independent community, you've almost got a voting bloc there with which you can influence the major labels."

This might seem a bit depressing: something that has been seen in some quarters as an instant fix for multiple music-industry problems may, in fact, take five, 10 or even 15 years to make a significant impact.

Mulligan's comments show why there is reason for optimism, however: blockchain adoption can progress one artist and one digital service at a time, in small, incremental steps that will help to prove whether this technology has value, while ironing out some of the challenges.

Imogen Heap's Mycelia project shows how one artist can take this idea by the scruff



of the back, while Rogers' dot.blockchain initiative is similar in its desire to create a "Minimum Viable Data" (MVD) system on the metadata side.

It would include details of the recording ownership, an ISRC/ISWC/ISNI code; publishing information; mechanical rights information, performer data; global licensing rules; usage rights; lyrics and images; payment details; and contact information.

The key will be then to build. "If we agree to six or seven core pieces of information that make it fair-trade, then you can add to that information infinitely. That's what makes it future-proof," said Rogers earlier this year. Blockchain and music isn't an instant fix: it's a series of small steps that can be taken by independent artists and entities, while the larger companies mull their strategies.

3. Is music industry culture the biggest barrier to all this?

Some of the biggest challenges to the adoption of blockchain technology in music may be intrinsic to music.

“Blockchain is a bit of a smokescreen,” said PPL’s CTO Mark Douglas at Music Ally’s recent event. “Actually we should be talking about ‘what are the real problems in our industry? There is a naivety about the conversation.’”

Douglas pointed to examples: “Knowing the end date of somebody’s rights becomes very commercially sensitive,” he said, while noting that rightsholders may not be ready for the kind of transparency that blockchain technology might usher in. “Unfortunately, the people who own our business don’t want us to give that data away for free... We’re not living in cloud cuckoo-land here.”

Blockchain’s emphasis on transparency may be a sharp awakening for some of the murkier elements of music-industry dealmaking, yet at the same time, there are arguments that some matters of commercial sensitivity would be better kept in private.

“One of the things that is useful now is the concept of digital service providers that give access to all music on commercial terms, and collecting societies that make available whole catalogues on negotiating terms,” said PRS for Music boss Robert Ashcroft in a recent Music Ally interview.

“I’m sure that blockchain technology can play a role in that, but you’ve got to have the ability for the aggregators and the distributors to be able to have negotiations.”

“Blockchain predisposes that it encourages transparency. My first reaction about the music industry is there are vested interests there... as Mark says, who for competitive reasons don’t want that information known,” said Simon Edhouse of Bittunes at our event.

The ghost at the blockchain banquet here is the Global Repertoire Database, which collapsed in 2014 due in part to the difficulties of reconciling the demands of the various rightsholders involved.

“It became a huge white elephant, because the industry among the publishers couldn’t agree on some pretty basic things,” Reed Smith partner Gregor Pryor told Music Ally in August 2015. “The other comparable example is DDEX [the

consortium trying to create digital supply-chain standards in the music market]. If you think about how long both those have taken to put together, you see the challenge.”

Pryor described blockchain as “a data problem, an adoption problem, and a rights management problem, when you start looking at this in more detail” for the industry. Others have also pointed out that artists like Imogen Heap may still be a minority, yet many of the benefits of blockchain technology will rely on creators being fully engaged with it.

“It depends on who is going to be putting the information in, and who’s controlling that information. In my experience working with writers and artists, they don’t want to do that. They want to create, but the nuts and bolts side... it’s just not something they want to do with their time,” said Forte at our event.

“So is the publisher going to do it, is the writer’s manager going to do it? Do they know how it works? It depends who’s going to drive it basically... the problem is you’ve got disparate groups who don’t join together.”



These are challenges, but not insurmountable ones. Rogers has argued that the potential benefits of the blockchain – to create a music industry considerably bigger than the one we have now – will be a big enough carrot to bring the various parties together to work on solutions.

“There’s no one that’s not invited to the table here... I feel that the idea of the industry owning a format is compelling enough to where we can gather as a body for the first time,” he said.

“Who wins in this scenario and who loses? It’s not going to make sense to hold back as usage scales. There’s so much more money on the other side of this thing... for the first time the industry is gathering in a way I’ve never seen.”

4. How will the big tech firms work with this – or be made to work with it?

If blockchain technology is to become a useful part of the music industry, its adoption is about more than creators and rightsholders. How will the large streaming services and technology companies react to it? Some of the concerns here are transactional, not just cultural.

“We all know the new model, the new paradigm in music is subscription. That doesn’t depend on individual transaction at a track level, so how would blockchain sit in respect to a Spotify or Apple Music? ... why would they get involved and where would they sit?” said Dr Silver at our event.

For a Spotify, the decentralised-rights-database aspect may be highly appealing, given its high-profile issues with mechanical publishing data – issues that extend to all of its rivals in the US too.

Silver suggested that blockchain technology could lead to some fascinating bedfellows within the industry.

“You might imagine we might see a Sony/Universal blockchain appear, or a Spotify/Warner/somebody else consortium appear. These groups of consortiums getting

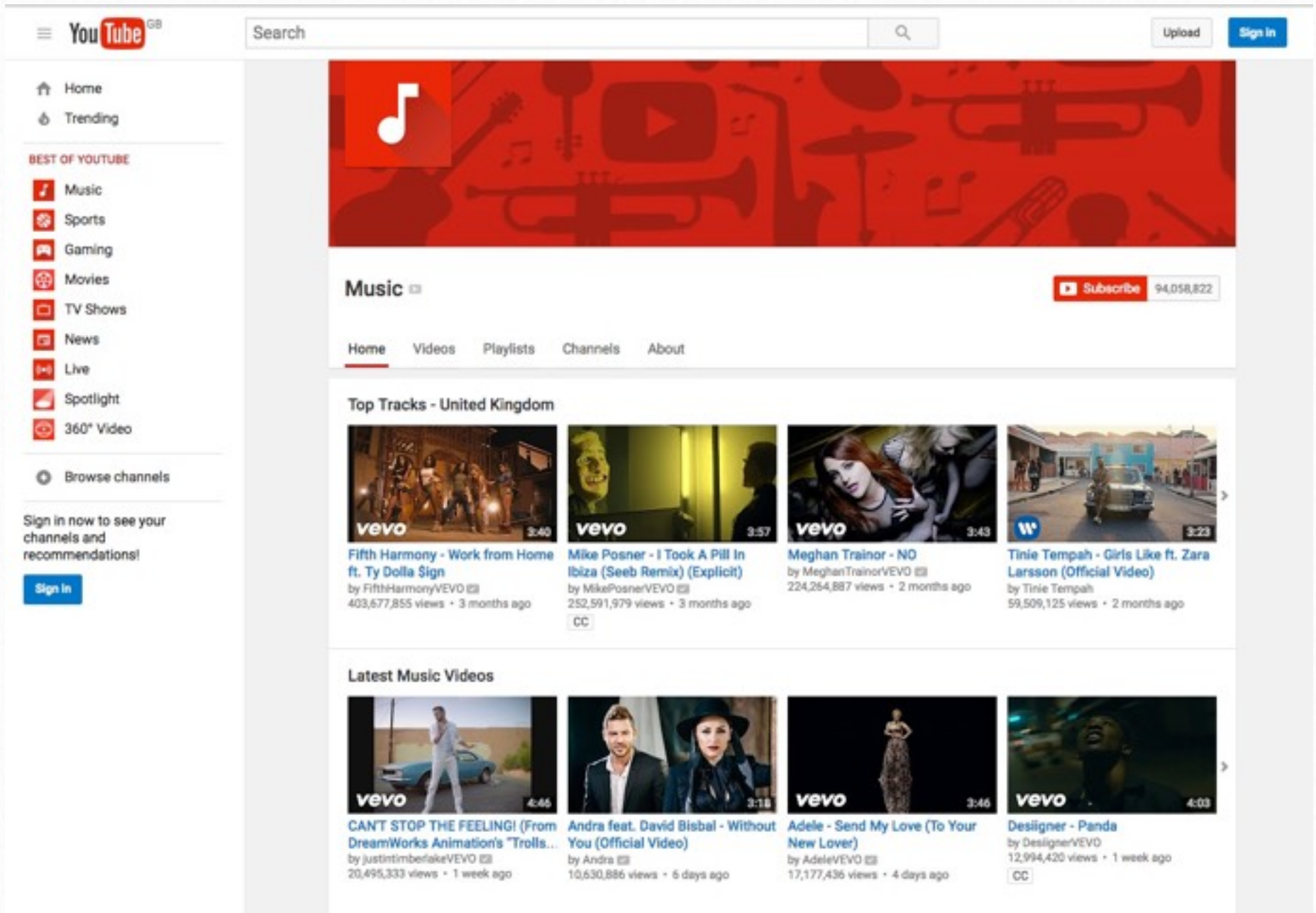
together and creating their own private blockchains... is a distinct possibility too,” he said.

“Even Apple might say ‘our stock is languishing, why don’t we tell everybody we’re going to put iTunes on the blockchain?.. All of these things are possibilities.”

The blockchain could also become a new stick to be used by the industry in its efforts to bend digital services to its will, following the ongoing lobbying around safe-harbour legislation.

In his appearance at a BPI event earlier this year, Benji Rogers held out the prospect of a bullish approach “telling YouTube and all the other players that you have until 2017 to become .bc compliant”, with services that refused to comply “falling into the sweatshop zone” in terms of their reputation among creators.

“It’s got to have everyone saying ‘why would you need to use a file without its data... What advantage is there? SoundCloud, why do you need this to not have who to pay written into it? YouTube, why do you need this not to have the publishers and the labels information written into it?’”



Rogers argued that there will be a carrot as well as a stick for services like YouTube, suggesting that automatic resolution of rights disputes could boost its advertising business.

“YouTube would realise that they can put ads on 90% more content than they do, because they wouldn’t have to figure out disputes within it,” he said. “No one likes to have their business model shaken up, but if right now they monetise 10% of their views, imagine if they could triple that.”

5. Will fans see this as DRM by another name, and is that a problem?

When discussing what blockchain technology has to offer music fans, one regular concern has been expressed: if part of this is about artists setting out how their songs can be used, could this become a new form of digital rights management (DRM) – a concept that is looked upon less-than-fondly in some quarters?

Rogers has described blockchain-powered music as “fair trade” but he is well aware of the potential headaches if artists exerting their rights is seen as a new DRM.

“Why is it a dirty word, that you as an artist would be able to manage your rights? So what I’m terming it as now is digital rights expression. Spotify will still work at the same level Spotify chooses to, but the key is if you want to use my beautiful ballad in a porno, you can’t – and if you do, I can tell you to take it down, because I said no,” he said at the BPI event.

Imogen Heap has also stressed the positive aspects. “We need to set the ethical, technological and commercial standards around how our music is used... At the moment, artists, we’re first in and last out: first in with our work, and right at

the end, if we’re lucky, we get some cash back,” she said in February.

“Why can’t we make something which is beautiful and fair, and enable people to really be creative with our content, instead of going ‘you can’t do that, or that, or that’... Nothing gets done until we do it. So let’s do it!”

The reality, though, is that criticism of DRM tends to come from tech blogs rather than from mainstream fans. If this technology comes to be used in Spotify, Apple Music, YouTube and other services, fans are unlikely to think of it in terms of whether ‘blockchain is the new DRM’ – they will be focused, as now, on whether the music they want is available on their service of choice.

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10 blockchain startups the music industry should be watching

1. Bittunes

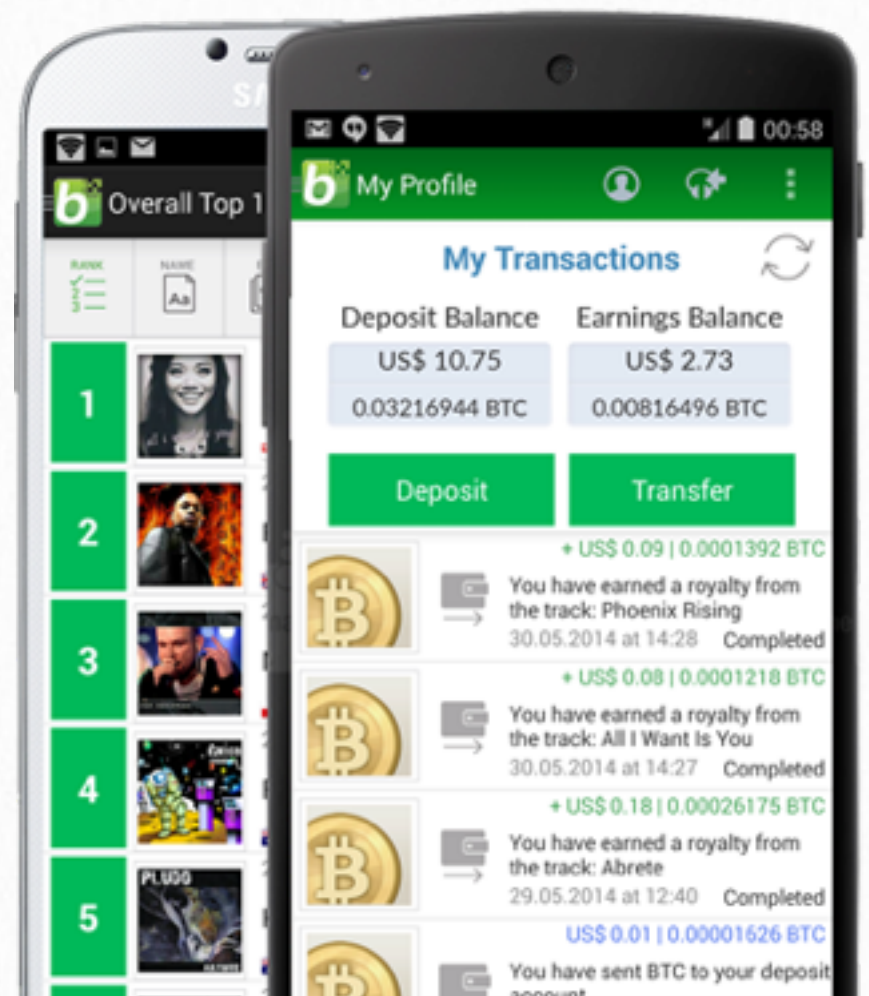
<http://bittunes.co.uk>

Describing itself as “like an island in an ocean of independent music”, Bittunes is a platform for independent artists to distribute their work directly to fans, with the bitcoin cryptocurrency used for transactions. The self-funded company has been going since 2013, with its Android app ensuring that artists and fans alike earn from the platform.

2. Ujo Music

<http://ujomusic.com>

Best known in music circles for working with Imogen Heap on her Mycelia project, Ujo Music’s prototype is a “complete, self-contained song ecosystem”. Fans can dig in to the metadata around Heap’s ‘Tiny Humans’ song, see how its payments are distributed, and buy it using the Ether cryptocurrency.

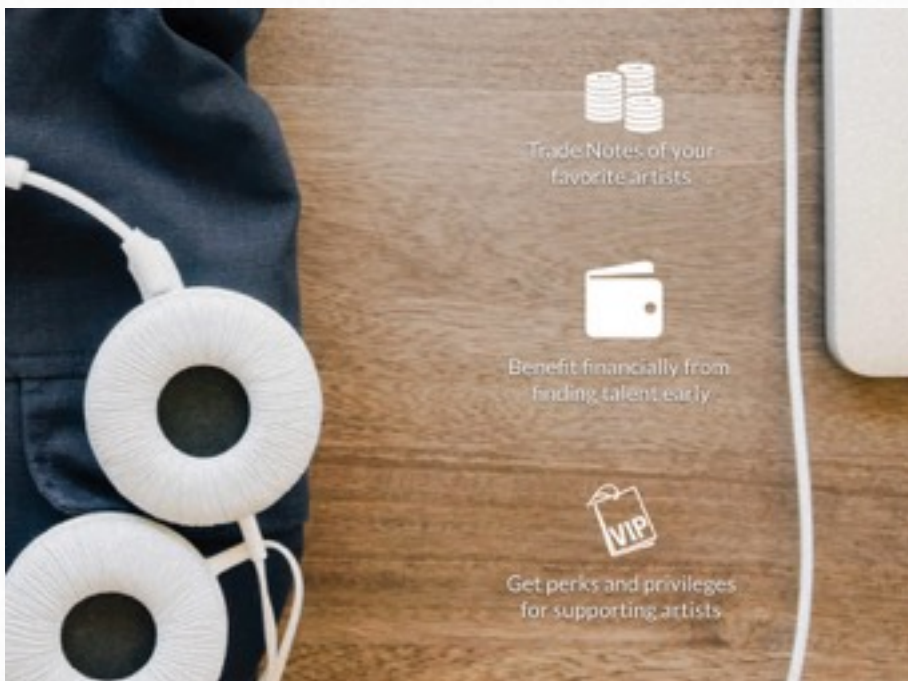


3. Dot.blockchain

<http://dotblockchainmusic.com>

This is what PledgeMusic’s Benji Rogers has been working on: a project that aims to develop a “new media format and supporting technology architecture” to encourage blockchain takeup within the music world. Created as a public benefit

corporation, the work on the dot.bc format aims to get musicians, managers, rightsholders and developers involved, including pursuing Rogers' belief that virtual reality (VR) and augmented reality (AR) could be the perfect techs to work with.



4. PeerTracks

<http://peertracks.com>

PeerTracks is one of the first music/blockchain services that fans can use. It's a streaming and sales platform that encourages fans to seek out new artists and then buy and trade "notes" in their favourites. Notes being "tradable VIP passes into the artist's world" offering merch discounts and other giveaways. The service uses MUSE, a blockchain-based network.

5. Stem

<http://stem.is>

Blockchain startup Stem made headlines in April when it raised \$4.5m of funding. It wants to get artists uploading their music and videos to YouTube, Spotify, Apple Music, SoundCloud and other platforms, then track the usage and divide earnings fairly according to their smart contracts.

6. Colu

<https://www.colu.co>

Colu isn't just a music company: its product is a "toolbox for building blockchain-based applications", from ticketing and financial transactions to music rights. In August 2015, it announced a partnership with music company Revelator, with the latter using Colu's tech to build a rights-management API for its clients.

7. Chainvine

<http://chainvine.com>

Music Ally first encountered Chainvine when writing a profile of music/tech accelerator Marathon Labs earlier in 2016. Describing itself as a "fintech innovation company" (financial tech), Chainvine is seen by Marathon as a potential boon for

artists to “assert control over their rights from songs to concert tickets”.

8. Mine / Mediachain

<http://www.mediachain.io>

Mine is the startup and Mediachain the project, here, and for now its focus is more on photograph rights rather than music. It's using blockchain technology to build a global database of rights for images, so they can be tracked as they travel over the social web. Its founders have talked about the technology being used for music, however.

9. Blokur

<http://www.blokur.com>

Blokur's founder was involved in the initial release of Ujo and Mycelia last year. His new startup is describing itself as “a startup creative rights platform designed to cut out the middle-man and make the flow of value back to creators as fast, cheap and efficient as the flow of information from creators to their audiences enabled by the web”.

10. Smilo

<https://angel.co/smilo>

The newest of the startups featured here, Smilo is a New York-based startup. “We've

tapped the potential of blockchain to create a premium demand-based music trading platform designed for the core fan,” explains its demo YouTube video. “The pricing model is fairly uncomplicated, using a variable supply and demand algorithm that increases the price of the content with each item sold.”

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Further reading

Blockchain or the Chaingang?

Dr Jeremy Silver's report on the challenges, opportunities and hype around blockchain technology and music.

<http://tinyurl.com/hbrkpvx>

Fair Music: Transparency and Payment Flows in the Music Industry

Rethink Music's report that kicked off the current wave of debate about blockchain and music.

<http://tinyurl.com/zcxy29p>

How the blockchain can change the music industry

A two-part blog post from Benji Rogers outlining his thoughts and plans for dot.blockchain.

Part 1: <http://tinyurl.com/h7k4ulw>

Part 2: <http://tinyurl.com/jgj3f2p>

An end of year blockchain summary and primer for 2015

George Howard has written a series of pieces for Forbes about music and the blockchain. This collects his 2015 articles.

<http://tinyurl.com/zevxz5d>

Blockchain Revolution

A new book by Don and Alex Tapscott that explores all aspects of blockchain, including a chapter on its music potential.

<http://tinyurl.com/h27e3rt>

Imogen Heap: saviour of the music industry?

Observer interview with Heap about her Mycelia project, and wider issues of transparency.

<http://tinyurl.com/hfsl954>

The networked record industry
A report from Marcus O'Dair of Middlesex
University exploring how blockchain tech
could affect the music business.

<http://tinyurl.com/hxoh6zh>

Music Ally's coverage of blockchain

Our ongoing archive of news stories,
interviews and conference reports that
touch on blockchain technology.

<http://tinyurl.com/gvxbxre>