On the 5 July 2017, the Institute for Information Law (IViR) of the University of Amsterdam organized its ‘Blockchain and Copyright Symposium’. For a brief introduction to this symposium and the topic, see our previous post. The symposium was divided into two parts. In the first part, following an introduction by IViR senior researcher Balázs Bodó, three other experts – Daniel Gervais, Becky Brook, and Xavier Costaz – delivered short presentations on the legal, business, and policy implications of blockchain technology for copyright. In the second part, the floor was opened for discussion between the panel and the audience. What follows is a summary of each part and the respective presentations.

Part I
Presentations
The symposium kicked off with a short presentation by Balázs Bodó. After briefly introducing the technology, Balázs noted blockchain essentially allows the reinstatement of artificial scarcity in the online world through tokenization of digital items. These tokens can be digital copies of copyright works; they can also refer to rights, license terms or payment for the use of works. The technology allows automated transactions on those items via (self-enforcing) ‘smart contracts’, as well as the creation of reliable and transparent transaction records without the need for a trusted intermediary.

Due to its far-reaching potential, stakeholder interest in the technology is high. Rights holders, collective rights management organizations (CMOs), digital content platforms, start-ups, investors, infrastructure providers, etc., all seem to be investing in some shape or form in blockchain-based solutions. In this context, it is difficult to distinguish hype from reality as far as their application to online copyright goes. In particular, it is hard to know whether it will constitute a revolution or merely an evolution in the online management of rights. To a large extent, Balázs noted, that will depend on its actual use by stakeholders. On that point, the subsequent speakers could shed some light on the legal implications of the technology, as well as its current use in the copyright field.

Building on this introduction, Daniel Gervais then explored the interface between blockchain and copyright. Daniel started by defining blockchain as a distributed and decentralized database (ledger) supported by cryptographic identity, where transaction ‘blocks’ are first added to the chain and can then be verified (or ‘mined’) by anyone. These steps are timestamped and transparent. In theory, the data is ‘immutable, secure and tamper proof’. Furthermore, blockchain technology is remarkably flexible. In a short time span, it has evolved from open ‘ledger’, to platform and application-based systems, from powering currencies (e.g. bitcoin, ethereum) to a central role in the fintech and other sectors, including the creative industries.

Daniel then explored the copyright perspective, explaining how blockchain can work for ‘artists’ (here: authors and performers) and users. From the artists’ perspective, blockchain allows the encoding of ‘smart information’ about a song in a digital item (e.g. a music file), ranging from typical rights management information (e.g. on ownership), to use permissions and payment terms. Examples of blockchain applications have cropped up in the field of online music: from Imogen Heap and the Myelia platform she founded, to musicoin, ujomusic, dotblockchain, resonate streaming, and muse platform, to name a few. Interestingly, these platforms appear to originate from outside the traditional music industry and tend to present themselves in very similar terms: as ‘fair’ and ‘sustainable’ remuneration alternatives to the current music ‘ecosystem’.

From the users’ perspective, blockchain would allow access to a song with embedded information clearly identifying allowed uses, restrictions, and price. Users would be able to contract for the desired use and pay artists directly, in a transparent manner, without the involvement of middlemen (e.g. a record label or intermediary platform).
Having noted these theoretical benefits, Daniel then mapped out different copyright challenges at the intersection of blockchain and copyright. First, he noted that the technology enables the decoupling of contracts from copyright. That is to say, the fact that a smart contract does not need to reflect a copyright entitlement may create a disconnect between that contract and the legal status of work and its use under copyright (e.g. as regards the scope of exclusive rights, limitations, or even applicable moral rights). Second, he pointed out the challenges at the level of rights information. It is no secret that the music industry has long struggled and failed to create reliable central databases on music ownership and use (a recent example being the Global Repertoire Database).

In Daniel’s view, since we are still at a ‘proof of concept’ stage, it is too early to assess the viability of blockchain applications for online music licensing or the creation of a global rights database. It will be necessary to let the market mature, standardize licensing information, establish a functioning and scalable payment infrastructure, define dispute settlement rules, secure respect for privacy and personal data of users, deal with issues on the fairness of payments to artists, define the role of CMOs in this field, etc.

Next up was Becky Brook, talking on behalf of JAAK, a blockchain start-up that aims to connect ‘songs, films, and TV shows directly to the artists, producers, writers, and organisations that create, own and distribute them’. The dichotomy between evolution and revolution mentioned by Balázs was directly addressed by Becky. She believes that blockchain doesn’t have to be a disruptive technology. In her view, the main problem in the music industry is the dysfunctional and unsustainable way data on ownership, use, and payments is processed. Millions of euro are spent on the processing of data worth fractions of cents. If used properly by the industry, blockchain could efficiently address this issue, especially in settling disputes on ownership claims.

Despite the multitude of stakeholders and diverging interests in the music field, as well as the challenges described by Daniel, Becky believes that blockchain can play a central role in this area. As she explained, the technology offers an incentive for the industry to join forces and solve the current mess on rights management information. This doesn’t mean that disputes on ownership and payments will magically disappear. However, existing problems may be mitigated due to the transparency and availability of information, as well as its decentralized management.

In this context, the main obstacle to the deployment of blockchain solutions is convincing all stakeholders to participate and invest in pooling data on rights management. Having said that, there is a noticeable shift in attitude within the music industry, where the potential for the technology is increasingly acknowledged.

The final panelist to speak was Xavier Costaz, Project Director at SACEM (the French Society of Authors, Composers and Publishers of Music). In his presentation Xavier talked about the joint project of SACEM, ASCAP, and PRS. This project between different CMOs aims to
develop a proof of concept on the use of blockchain to improve data accuracy for rights holders. The objective is to create a prototype for a shared system that manages authoritative music copyright information. This system would consist of a decentralized database of metadata on musical works ‘with real-time update and tracking capabilities’. It would manage the links between two existing music recordings standard codes, the ISRC (International Standard Recording Code) and the ISWC (International Standard Work Code).

As explained by Xavier, the project is intended to create a concrete business case for this type of technology. The CMOs partnered with IBM and are using the Hyperledger Fabric platform, hoping that it will help solve the problem of scalability inherent to this type of solution. In the first phase of the project, a system was developed to manage a library of a thousand works and around 100,000 links. The project is currently entering its second phase, which will test a real life situation, extending the library to millions of works.

In addressing the limitations of blockchain for this type of project, Xavier noted the issues with scalability. In his view, it may be necessary to develop an integrated solution, whereby a blockchain platform is complemented by other types of technology, for example artificial intelligence. In finishing, he stated that blockchain should be considered a tool that is beneficial for working within collective rights management, and need not therefore be considered disruptive or revolutionary.

**Part II**

**Discussion**

In the discussion with the audience, the first major topic to surface was whether blockchain constitutes a real novelty in the rights management field. The speakers had different views. Daniel classed himself as a sceptic. The promise of blockchain, he said, was to cut out the middlemen, making direct artist-to-fan transactions possible. This is not necessarily new and may not be as easy to achieve as it seems in the current business and legal framework. Xavier showed less scepticism. Although recognizing the need for further research and development, he believes in the potential of blockchain technology to enable new methods of sharing data and lowering transaction costs inherent to collective rights management.

A related issue that came up was whether blockchain offers a solution for stakeholders’ unwillingness to share rights ownership and management data. In Becky’s view, this could indeed be the case as the technology should help in the development of common standards. In simple terms, blockchain allows stakeholders to connect their existing databases into a common system and develop standardization in an iterative process until reaching a common standard. Importantly, due to its decentralized infrastructure, it is a much cheaper way to develop standards than a top-down approach. This economy of scale benefit is, in her words, a ‘bestselling argument’ for the technology. Blockchain is not a silver bullet, but an enabler of data sharing.
For Xavier, this is a governance issue that is inherent to any project of this type and that blockchain doesn’t solve by itself. Good illustrations of this are different blockchain initiatives launched by different CMOs, e.g. the projects of SACEM and SOCAN. Still, these different approaches can also enable complementarity. In his view, when the time is right, it would be logical for different collectives to cooperate for instance under the CISAC umbrella, and to go further by capitalizing on some of the ideas and outputs of the Open Music Initiative.

A final key topic that emerged from the discussion was the future of CMOs in a blockchain environment. Some audience members suggested that the disintermediating nature of the technology could bring about the end of CMOs in the digital environment. But this view was not shared by the speakers. For instance, Xavier was of the opinion that with or without this technology artists will simply not be able (or even willing) to deal with the transaction costs of direct licensing online. CMOs will retain their purpose, but will hopefully do so more efficiently with the aid of blockchain. Becky added that even if the technology replaces certain CMO functions, it will likely not replace all. However, CMOs chances of survival will increase if they demonstrate an ability to add value in this new environment.

In closing, it appears that blockchain technology presents an opportunity to improve online music licensing and rights management, especially standardization of rights ownership information. Exactly how much of an improvement it is hard to tell. The potential of the technology justifies some of the hype, but the discussion also makes clear how early it is to call it revolutionary for copyright. Rather, it appears to be an agent for incremental change that will hopefully increase the efficiency and transparency of their services, while offering artists an additional avenue for direct licensing.

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