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What use is blockchain for journalism?

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Summary

Newsrooms have gone digital, become networked, and sought to build engagement and a business on a raft of new platforms and networks, using a dizzying range of new tools and software. This process of adoption and adaption is tiring and depletes resources as well as opening new frontiers. It may be that we are in a 'post-enthusiasm' world when it comes to technology and journalism. However, the idea of blockchain has fired up a vibrant debate about how we might change things all over again. Despite being around for years and applied in other sectors, the technology is not widely used in media production. There are start-ups building solutions with some minor blockchain applications, such as saving article metadata and editing history to an open and immutable repository. There is also an **EU-financed project** that uses blockchain for contract and rights management. The frontrunner for journalism on blockchain has so far been US-based Civil that has promised to save journalism with its blockchain-based platform. But Civil's recent token sale failed. Many were interested to hear about the idea but very few wanted to back the idea financially. So, it seems that on the hype curve, blockchain might be on its way past the "Peak of Inflated Expectations" and headed to the "Trough of Disillusionment".

This doesn't mean that we should rush to dismiss blockchain. The technology itself appears difficult to understand but I would encourage anyone interested to spend some time looking into it. But my stronger recommendation is that you get to know the blockchain *movement* and what is happening more generally around 'Web3.0'.

We journalists should aim to accomplish all those things that the blockchain start-ups are trying to do: create verified and trusted content by opening up our editing histories and make co-creation with the public a natural and necessary part of journalistic work. This should be done immediately, with or without blockchain.



This report was produced during my month-long fellowship at the LSE's journalism think-tank Polis in October 2018. My aim was to study the possible uses and benefits the blockchain technology could have for journalism. I'll begin with a look at the technology and the possible uses we journalists might have for it. Then we will meet some of the companies planning to use blockchain to enhance or reinvent journalism. These grand plans will be contrasted with critical views of the blockchain "hype" and the possible intrinsic problems it might have. The last chapter will have an analysis and some thoughts about what the journalistic community should think about and do with (or without) blockchain.

1 Do you have a problem? Just put some blockchain on it

Blockchain is riding high on the hype curve. Enthusiasts claim this technology will bring about total change to industries from finance to food. And it doesn't stop there: aspects of the public sphere from communities, government, politics, voting and decision-making will change - not to mention how we understand and use our identities, on and offline. In short: it will change everything.

That includes journalism¹. Even if journalism has not been leading the blockchain development, it is definitely not forgotten. There are already start-ups working on blockchain-based solutions for many aspects of the media ecosystem: social media platforms, monetization systems, rights management, user co-operation and gratification, identity management, archiving and production tools using blockchain. There are also several projects that talk about no less than saving or reinventing journalism with blockchain. And also some of the existing media companies have started projects with blockchain.

¹ See for example '2019 Trend Report for Journalism, Media and Technology' from Future Today Institute. <https://futuretodayinstitute.com/2019-journalism-media-tech-trends/>



1.2 What is blockchain?

Blockchain is a technology that records transactions in a way that is distributed, immutable and openly available to anyone. In the basic format it is a chain of blocks that record all the transactions done in the chain and that is saved on all the nodes in the network with the help of encryption. The nodes share a consensus of the status of the chain and of the following block to be added.

There are both public and private blockchains. The public version is open to everyone to inspect and join.

The private versions are usually called permissioned blockchains since a permission is needed to join them.

Some blockchains, the best-known being Ethereum, add the possibility to save and run 'smart contracts' on the blockchain. A smart contract can be a regular financial contract that manages conditions for payments or, for example, a voting system that controls the whole process from registering voters to declaring the outcome of the vote. These contracts are also immutable and fully automated.





1.3 Blockchain applications

To get a better understanding of the possible uses for blockchain, I cite William Mougayars definition:

“Technically, the blockchain is a back-end database that maintains a distributed ledger that can be inspected openly. Business-wise, the blockchain is an exchange network for moving transactions, value, and assets between peers, without the assistance of intermediaries. Legally, the blockchain validates transactions, replacing previously trusted entities.”²

The most common application of blockchain is cryptocurrency, like Bitcoin. Blockchain makes it possible to do transactions between two participants without relying on trust and without involving a third party, a bank for example, to guarantee the transaction, so value transactions are an obvious use case.

But as Mougayar points out, the technology can also be used in other industries. Walmart is using IBM's blockchain technology to improve food traceability. And ING, BNP Paribas and Commerzbank among others are creating Marco Polo, an open account trade finance platform on R3s Corda blockchain framework.

These applications that are mostly about increasing efficiency do not really explain what the big hype is all about. The magic word behind the big visions is 'decentralization'.

If blockchain allows for disintermediating a central authority in value transactions, it should logically be able to do the same in other domains as well: identity management, voting, decision systems, publishing and ownership, to mention a few. Most of the main pillars of society

² Mougayar, William (2016) 'Working as a layer on top of the internet, blockchain is an instrument of change' LSE Business Review Blog, 7.7.2016. <http://blogs.lse.ac.uk/businessreview/2016/07/07/working-as-a-layer-on-top-of-the-internet-blockchain-is-an-instrument-of-change/>



could become decentralized, which would mean very big changes – at least, potentially. In her article “Blockchain Dreams: Imagining Techno-Economic Alternatives After Bitcoin” Lana Swartz notes that “it truly is difficult to overstate the claims made by blockchain enthusiasts”.³

1.4 Blockchain in journalism

Decentralization might not be the first thing that springs to mind as a solution when you ponder the problems journalism is experiencing. But blockchain might well have several improvements to offer journalists. Here are some:

- a widely used cryptocurrency with low or no-cost transactions would make it easier to charge very small amounts for media products.
- a cryptocurrency or token could also make it easier for media companies to incentivise users for co-operation and content creation.
- an automated content and rights management marketplace
- tools for controlling the origin and integrity of content
- a distributed publishing environment which means that a single server failure would not take down the content itself
- a distributed publishing environment to counter censorship⁴
- a decentralized publishing platform, “Facebook or Google without the central ownership and control.”

A more decentralized and democratic network than the internet today would likely work in the favour of journalistic organisations. This platform, often referred to as Web 3.0, would, for example, allow users to own their identity and data, which would then again level the playing field between media companies and the internet giants that now control user identities and user data.

³ Swartz, Lana (2017) ‘Blockchain dreams: Imagining techno-economic alternatives after bitcoin’ in *Another Economy is Possible: Culture and Economy in a Time of Crisis* ed. Manuel Castells. Cambridge: Polity Press, pp. 82-105.

⁴ One of the first sites to actually use this might be Gab. See: ‘The Alt-Right’s Favorite Social Network Gab’s Plan To Use Blockchain To Make Itself Indestructible.’ Forbes 31.10.2018. <https://www.forbes.com/sites/michaeldelcastillo/2018/10/31/the-alt-rights-favorite-social-network-gabs-plan-to-use-blockchain-to-make-itself-indestructible/#6eeb4cb631be>



2 Hey, we are using blockchain! (or planning to)

In this chapter we will look at the companies, mainly start-ups, who are using or planning to use blockchain. We start with the most ambitious, Civil, and its partners Forbes and Kinzen. Then we meet two start-ups that are working on very similar ideas: Mogul News and Nwzer. The last example is an EU-financed co-operation between several companies, including Deutsche Welle, VRT and WAN-IFRA, working together to create a marketplace where rights management and the contractual framework would rely on blockchain solutions.

2.1 Civil is reinventing the journalistic platform

Civil, a start-up based in New York, uses a simple slogan to describe its goal: 'Civil is a new economy for ethical journalism'. In practice this means that Civil is simultaneously trying to find a solution to three major problems journalism faces, according to Dan Kinsley, co-founder and engineering lead:

“The problem of trust, the problem of monetization and the problem of ethical governance of the publishing platform.”⁵

To fix all this, Civil has created a framework that includes more or less everything a journalistic project needs to function: publishing tools and platform, a token-based monetization system and a

5 Interview with Dan Kinsley 13.10.2018.



governance model to guarantee that newsrooms in the Civil network function ethically and follow journalistic standards. The major innovation in the model is the token-based governance system that allows the public to financially back selected newsrooms and take part in the key decisions regarding the platform.

“Civil is an economy”, explains Kinsley. “It now has three parts: the Civil network that is shared by everyone, the Civil Media company that has created the platform and will continue to create services on it and then there is the Civil Foundation that looks after the integrity of the platform, funds new newsrooms and research and appoints the members to Civil Council which is the ‘supreme court’ of the Civil Registry.”

And what is blockchain’s role in all this?

On the general level Civil is a supporter of the decentralization-movement. “Blockchain is about decentralization, a way to transfer power away from the big companies”, Kinsley says.

Also on the technical level Civil is very deeply attached to the Ethereum-blockchain:

“The core of Civil’s journalism protocol is built upon smart contracts written for the Ethereum blockchain. These contracts provide interfaces to access the token curated registry, newsroom data and other components of the marketplace.”⁶

In other words blockchain is a key component of Civil’s technology. The economy is based on cryptocurrency, the governance is programmed in smart contracts and the content metadata is saved on the blockchain.

The newsrooms in the network do not need any knowledge of blockchain. Technically a newsroom only needs to use Civil’s own content management system or use a plugin. Civil is providing a plugin for Wordpress.

6 Ng, Peter. ‘Introducing the Civil Events Crawler’, Medium, 6.8.2018. <https://blog.joincivil.com/introducing-the-civil-events-crawler-29fe05d3f861>



“The plugin communicates with our system and gives the publishers, articles a Civil hash and metadata. For the public it shows a “runs on Civil” -sign on the article which gives the article a higher trustworthiness and a larger distribution”, said Kinsley.

This is the model that Civil’s first major co-operation with Forbes, will use. Civil also has a co-operation agreement in place with AP. The newsrooms now publishing on the Civil network, called “first fleet” by Civil, are mainly small, local or niche newsrooms, many of them funded by Civil.

Civil also points out that the newsrooms can and will accept financial support in other currencies than CVL-tokens, for example in dollars. This is probably sensible since Civil’s own token sale in September-October did not succeed. It raised only \$1.4 million when the minimum target was \$8 million. The token sale was criticised for being too complex and Civil’s governance model, particularly the Civil Council was questioned.⁷ Civil says it will proceed without the tokens and a new, simplified sale will happen later.

Kinsley is hopeful about the future:

“I believe that this opens up new ways to connect with your public. Newsrooms are held directly accountable to the users of the platform which makes users a part of the community and more likely to comment and co-operate with the journalists.”

He also believes that Civil could become a platform for others to build on.

⁷ For example ‘Sorry Civil, ‘crypto-economics’ and ‘constitutions’ won’t save journalism’, *Financial Times*, 12.10.2018. [https://ftalphaville.ft.com/2018/10/12/1539316803000/Sorry-Civil---crypto-economics--and--constitutions--won-t-save-journalism-/](https://ftalphaville.ft.com/2018/10/12/1539316803000/Sorry-Civil---crypto-economics--and--constitutions--won-t-save-journalism/)



2.2 Kinzen builds a curator-economy

One of the companies planning to work with Civil is Kinzen who are building a new sort of news app that combines user-oriented (as opposed to revenue-oriented) personalisation with a curator network.

Kinzen's plan is to reward the curation work. "The people that create value never get anything", says founder and CEO Mark Little, meaning all those who run more or less curated services like newsletters on different existing platforms.

First the curators will get free access to the news app that Kinzen is planning to launch in January 2019. The second step will be a token-based reward. Kinzen is exploring commercial opportunities for curators within Civil's journalism ecosystem, and codes of conduct for a curator network, which mirror the Civil constitution. Little says Kinzen has no plans to leverage other elements of blockchain technology beside token-based incentives, but does not rule it out in the future.



Mark Little, Kinzen



“Increasing reader trust through transparency”

Salah Zalatimo, Senior Vice President of Product & Technology at Forbes, explains why Forbes is testing Civil’s technology for appending article metadata to a blockchain.

1. Can you be more specific about Forbes goals with the project? How do you measure them? Trust, for example.

Our primary goal is to learn. Blockchain technology is complex and has grand promises. One of the more immediate benefits is around increasing reader trust through transparency of authorship and accreditation. We run user surveys once per quarter to assess various elements of our brand, and trust is one of the questions we will be tracking.

2. Does Forbes have other blockchain-related projects in production or planned? Or if not, what do you think you should be looking to do?

At this point, this is the only blockchain technology project we have planned. As it is exploratory, it may well lead to others.

3. What would you recommend as a good starting point/test project/environment for a media company new to blockchain?

I think what we are doing with Civil is a great first step – appending article metadata to a blockchain so that authorship and other characteristics can be permanently established and publicly available. This validates the source and, to some extent, quality of the content.

4. In the long term, would Forbes be interested running its services on a

a) distributed technical platform?

b) decentralized media platform?

a) Yes.

b) Yes.

Both of these technologies have inherent benefits – elimination of single point of failure. As we gain exposure to them, we’ll be able to better assess the feasibility of doing so.



2.3 Creating user-generated news agencies

The idea of co-operating with the users seems to fit well with blockchain. Both London-based Mogul News and Maastricht-based Nwzer are start-ups working with their own version of doing news together with the public.

Mogul News

Mogul News is building a news service that plans to combine professional journalism with input from the users. The founder Rav Singh Sandhu sees many advantages in this model:

“Some people are more willing to use their time than their money to pay for something they appreciate so we are letting people pay for Mogul News through their work. If you do not want to pay you can share, recommend or comment.”



Rav Singh Sandhu, Mogul News



Blockchain technology plays a minor role in Mogul News’s tech stack: “We will use blockchain to save and publish the whole editing history for every article. It is key to trust”,

For Sandhu, Mogul News is about renewing journalism: “Journalism is a public good in private hands and it is very important that everyone has access to high quality news”.

His long-term vision is to create a “fully autonomous, self-governed and truly decentralized news network” that pays the content producers. “People could for example produce local news themselves, which would be important to get more marginal demographics interested in the content”.

Mogul News will launch sometime before summer 2019 and says that it already has over 2,500 people who want to take part in producing and editing the content.





Nwzer

Dutch start-up Nwzer is on a similar track. According to Nwzer's webpage the goal is to build the "first user-generated news agency". Founder Karim Maassen talks about a platform that combines citizen journalism with artificial intelligence and blockchain. The basic idea is that the community creates content on the Nwzer platform and then an algorithm creates the service, basically a webpage, from that content using different data points:

"One of the most important indicators of quality content is the reputation of the creator. This we have seen in our tests very clearly."

This is also where blockchain enters the picture. "We use the Ethereum blockchain for recording everything, all the user actions, and also the reputation score." Other plans around blockchain are still open. "We might issue tokens, but they will be the exact reputation score. We like to add value to the system based on its purpose, rather than an ICO where it's basically just crowdfunding."

The next step is Alpha-testing with a small user group. Nwzer also has several partnerships going on. "During the spring we will launch our service as part of a digital service run by a big Dutch media company" says Maassen. For Maassen the most important thing is journalism. "I believe in this. It is important that people are informed."



Karim Maassen, Nwzer



2.4 A content marketplace on blockchain

The European Union is financing a co-operation project called Content Personalisation Network. The ambitious project with 9 partners, including VRT, Deutsche Welle and WAN-IFRA, aims to “provide media users with a seamless and reliable news experience on different platforms and provide media companies with effective news distribution solutions”.

The project applies blockchain technology for contract and licence management, which forms a part of the platform. “Publishers will use content licensing templates on the CPN marketplace and content producers can accept them more easily”, says Robert Learney, who works as a lead technologist at one of the CPN partners, Digital Catapult.⁸

An open, more or less automated marketplace without third party involvement promises to reduce lengthy negotiations and costs for both publishers and producers. It also gives the publishers a forum where they can ask for or order certain kinds of content, for example images, without contacting several producers individually.

The chosen blockchain platform is Hyperledger Fabric which is a private blockchain first created by IBM. “On Ethereum there is no control over who can validate your transactions so a private blockchain is better, at least for now”, Learney says.

Learney is hopeful about blockchain as a technology but suggests that everyone should test it first. “Choose a small problem. And do the test together with an external partner, that is the only way to understand the potential advantages – and disadvantages.”



3 Have you ever seen the chain?

The bold statements and grand plans of blockchain visionaries and entrepreneurs have been criticised. One of the more vocal critics is David Gerard, writer of the book *Attack of the 50-foot Blockchain*. He argues that blockchain has in fact been around from 1970s. “It is basically an add-only, tamper-free log - widely used when it has a use case.”⁹

Gerard adds that these use cases are few. And in those cases when a blockchain is used, it actually functions as a database, not as an open, public ledger.

“Blockchain is a weird package of promises of great things happening.”

David Gerard



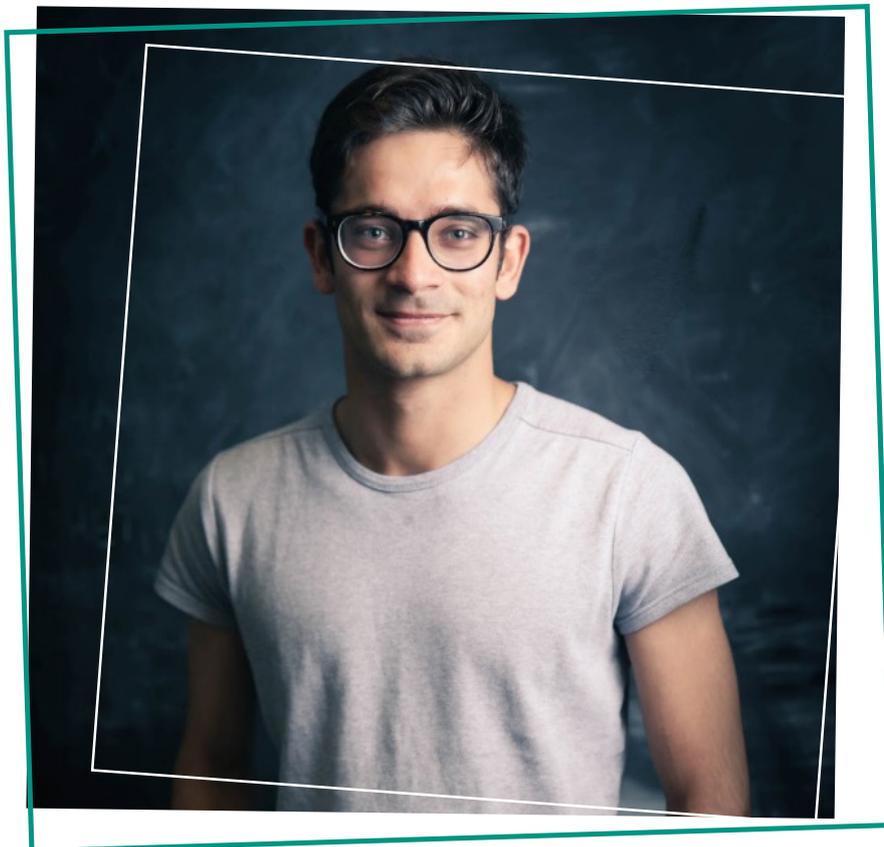
David Gerard (credit: Pauline Martindale)



Dhruv Ghulati, founder of Factmata, has an even more pragmatic view: “Have you seen a blockchain in production?”¹⁰

Factmata is a startup that gives news articles and other content a credibility score based on an automated and machine learning-guided review – an idea that we have already seen high on the list of possible uses for blockchain in media. But Factmata does not use blockchain at all even though Ghulati underscores that they strive to make their data openly available:

“Blockchain is still not in vogue for the communities we are trying to target, and the setup costs are known to be very high to get started - not wise for an early stage media project in our opinion”



Dhruv Ghulati, founder of Factmata

¹⁰ Interview with Dhruv Gulati, 26.10.2018.



3.1 A centralized system might be better

In her article “*Blockchain revolution without the blockchain*” Hanna Halaburda notes that the main concept blockchain seems to incorporate is encryption and smart contracts.¹¹ Encryption and smart contracts might bring benefits but these technologies do not need blockchain: “In many cases the permissioned blockchains are the right tools for their purpose, but more often a centralized system would be more efficient and reliable”, Halaburda writes, meaning that a centralized storage, usually a database, would be a better choice than a distributed blockchain.

Kai Stinchcombe, founder of True Link Financial, goes further: “Everyone says the blockchain is going to change everything. And yet, after years of tireless effort, nobody has actually come up with a use for the blockchain – besides currency speculation and illegal transactions.”¹²



¹¹ Halaburda, Hanna (2018). ‘Blockchain revolution without the blockchain?’ in *Communications of the ACM*, 61(7), pp. 27-29..

¹² Stinchcombe, Kai. ‘Ten years in, nobody has come up with a use for blockchain’ Medium, 22.12.2017. <https://hackernoon.com/ten-years-in-nobody-has-come-up-with-a-use-case-for-blockchain-ee98c180100>



3.2 Everything is possible, nothing is real

For blockchain promoters, the limited amount of real use cases is not a problem since it is just a matter of time. The fact that the visions fly high even though reality is lagging far behind is, according to Lana Swartz, a characteristic of the whole blockchain movement:

“As a soon as a proposal is offered – whether as a white paper, a slide deck, or a blog post – it is as though it already exists, ready to go.”¹³

Swartz also notes that it is not unusual for Silicon Valley that technology is one step behind the promises but “... blockchain advocates are unusually willing to operate as though the future arrived in the present”.¹⁴

For David Gerard the question is more about fantasy than futurism: “Smart contracts are computer programs but in white papers they are treated like magic”, he says, implying that the future deliverables of blockchain technology might not be available in our reality no matter how long we wait.

And to those saying that this is just like the early days of the internet, meaning big promises but bad user experiences, Gerard has this to say:

“The internet was real, based on successes and real people using it. Blockchain uses this argument as an excuse for failure.”

¹³ Swartz, 2017, p. 89.

¹⁴ Swartz, 2017, p. 98.



4 Real problems, fake solutions?

So how should we interpret these contrasting messages from the point of view of media companies and journalists? On the one hand we have the whole vibrant blockchain movement and established figures, like Amy Webb, saying that journalistic organizations should “act now”¹⁵ when it comes to blockchain. And on the other we have critics saying that blockchain is nonsense.

4.1 Part of the digitalization process

I would like to follow Robert Herians’ advice that blockchain is an influential yet subtle force changing our society and it “can no longer be ignored”.¹⁶ Odysseas Sclavounis, who studies the internal governance models of existing blockchains, makes a similar point in saying that blockchain should be seen simply as one step in the ongoing digitalization process: “Blockchain will become the background structure for how we interact with data, even if the use cases are hard to see now. It is an inevitability, but not a systematic change.”¹⁷

According to Sclavounis, the new decentralized web services that are under construction at the moment will not supplant the now dominant, centralized services like Facebook and Google: “These two models will largely co-exist and the bigger platforms will be influenced by the newcomers – a bit like the far right political parties can influence the bigger parties in the centre.”

15 ‘2019 Trend Report for Journalism, Media and Technology’ from Future Today Institute. <https://futuretodayinstitute.com/2019-journalism-media-tech-trends/>

16 Herian, Robert (2018). ‘Taking blockchain seriously’ in *Law and Critique*, 29(2), pp. 163-171.

17 Interview with Odysseas Sclavounis 26.10.2018.



4.2 Web 3.0 will be built

The technical experts seem to regard blockchain as a something that will have real consequences. “Web 3.0 is being built and blockchain will be part of it, just how big an impact this will have is unclear at the moment”, says Robert Learney from Digital Catapult.

Learney expects that private blockchains will be the catalyst. “Bigger companies will begin to use private chains first. Then when that usage is widespread, we will see start to see them transition to services also on public blockchains.” Even the blockchain-sceptic David Gerard admits that “in 5-10 years we might have systems that have something blockchain-based. It will not work well, but it will be kept because it’s better than not having it.”

4.3 The reality now

To return to the reality now, it seems clear that the use of blockchain in production systems is quite low, close to non-existent. Even the start-ups we met earlier in this report have very modest plans for blockchain applications:

Company	Blockchain applications
Civil	token, governance with smart contracts, metadata
Kinzen	token
Forbes	metadata
Mogul	metadata
Nwzer	metadata
CPN	rights management and contracts with smart contracts



Even if blockchain does not have the power to reinvent journalism, it can be used for several purposes:

- increasing transparency and trust with openly available and immutable metadata including the editing history of a certain content piece
- sharing value with the user community or to reward for user generated content
- automated contract and rights management.

4.4 Do it now – the tech does not matter

All those things can also be done without blockchain. And this is a very important point since it is critical for our industry to proceed from elevated discussions about misinformation and technological silver bullets to actually test real tools that could make a difference.

Forbes for example shows an interest in doing just that. And while some may feel *schadenfreude* over set-backs to projects like Civil, we should remember that traditional media's problems are very real and have to be solved. If blockchain can provide tools, we should use them.

The potential to save article metadata seems to be a good use case for blockchain for journalistic purposes. This is not something that journalists are used to and some might actually feel intimidated if we were to expose editing histories for everyone. But as Forbes' Salatimo says: "This validates the source and, to some extent, the quality of the content."

Automated content marketplaces and copyright clearinghouses with very low transaction fees would be interesting for many publishers and producers. If they can be done effectively using a private blockchain, it would be also be a use case for the technology.



5. The ecosystem is important

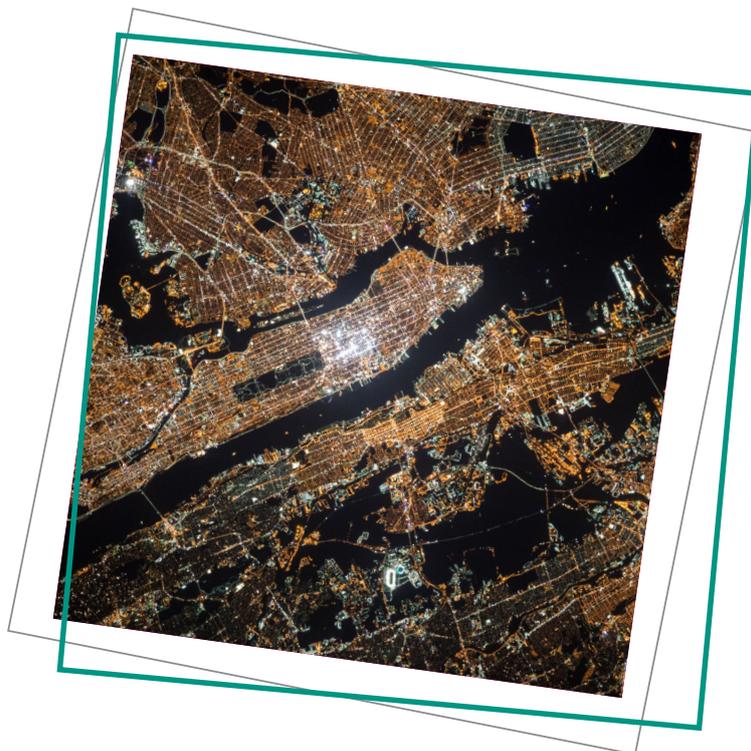
Journalism might have something to gain from the blockchain movement – even if the technology only amounts to an unscaleable database and the blockchain dream proves unrealistic.

The blockchain movement (combined with civil society and journalists) has produced something real and good: many young and brilliant entrepreneurs are spending their time and energy figuring out how to solve these problems. With or without blockchain.

We legacy journalists should feel as lucky as the finance worker interviewed by Lana Swartz:

“No one has ever thought that rethinking these processes was interesting. Now it’s all over the news.”¹⁸

On top of this fantastic start-up activity the bigger media organizations are, as mentioned earlier, showing interest and doing something.



18 Swartz, 2017, p. 99.



5.1 The idea, not the technology

This phenomenon is also noted in the literature. Robert Herian writes that “blockchain produces greater effect as an idea than an applied technology”.¹⁹ Lana Swartz’s formulation that “the blockchain is more useful as a rhetorical strategy than technological strategy”²⁰ is borne out by our research that has found many of the startups using blockchain more for marketing than production.

The same could well be applied to bigger organisations where buzzwords can help to finance a project. Or as the experienced system administrator David Gerard puts it: “Blockchain is not going to clear up your data structure, but it might give you the resources to do it.”

5.2 Users, users, users!

From this point of view, we can then look at these projects combining journalism and blockchain as not concentrating on the technology but on the goal; “Even if these projects turn out to be vapor, the blockchain is usable as an inventory of desire.”

It is not difficult to notice that the common theme for nearly all of the blockchain-related projects we have seen in this report is not decentralisation or distribution in itself but co-operation with the public, the users and the community. Not a big surprise given that it is users that make Facebook, YouTube, Twitter, Instagram, Snapchat etc. so successful.

¹⁹ Herian, 2018, p 169.

²⁰ Swartz, 2017, p. 99.

²¹ Swartz, 2017 p. 83.



We journalists and the traditional media organizations are still quite hopeless at co-operating with the public. There are several reasons for this, ranging from journalistic arrogance to organizational blindness, but one very good reason is that we have not really figured out a way to successfully mix professional and citizen journalism. The projects combining professional journalists and amateurs have often been laborious and the results often lacking, at least from a professional point of view.

Enter blockchain, the solution in search of a problem. What if we just decentralize, distribute, tokenize and democratize the whole process in an open, immutable and automated system? Sounds fine - even a bit too good to be true.²² Take Civil for example. The project got a large amount of positive exposure beforehand but failed immediately in first contact with reality.

A useful piece of advice can be found in Lana Swartz's very insightful: "What if, instead of making decentralization and disintermediation goals unto themselves, we imagined what it would be to take seriously the hard work of infrastructural cooperation, of sharing?"²³

Transferred to journalism, this would mean that instead of looking for one more technology to solve our problems, we journalists would take seriously the possibility of co-operating with the public. For example, sharing our publishing platforms and tools with the users, making them real users instead of receivers. At the moment the public is often seen as being outside the infrastructure, which makes co-operation difficult.

Sitting in the office waiting for blockchain to fix this is not an option. But this is what we tend to do. Having participated in several website and content management system updates, I've noticed that often the list of tools we absolutely need to have in the next version are actually meant for functions – like for example co-operating with the users - that are easily done with the existing platform. What we journalists definitely do not need is another excuse for not doing things we should have done a long time ago.

²² David Gerard sees a relationship between the crisis of journalism and the eagerness to find easy solutions. "Desperate people are easy to sell rubbish to. And you are the desperate people here." Interview with author 13.10.2018.

²³ Swartz, 2017, p. 100.



Ultimately, I do not see a high likelihood that blockchain-technology will have an impact in newsrooms in the near future. And this is exactly the reason why we should act now to reach the same goals – transparency, trust and active co-creation – using the platforms and tools we have now. If blockchain can help with this later on, fine, but, for example, publishing the editing history of an article can easily be done without it.

Afterword: Check out Web3!

That said, I strongly recommend to keep an eye on the ecosystem. It might well be that the thousands of very smart people trying to solve all the problems in the world happen to produce something of interest for journalism. You do not need to understand how Ethereum 2.0 is going to solve the scalability issues but you should have at least a vague idea of what happens in and around Dweb²⁴ and Web3.²⁵

There are also several interesting start-ups and projects in the blockchain space that I did not manage to cover but might be worthwhile to know about, including:

- Po.et, journalism
- Steemit, social media platform
- IPFS, a very distributed file system
- Brave, browser
- LBRY, content distribution platform
- Livepeer, video infrastructure²⁶

24 See for example Mozilla Hacks: Introducing the Dweb. <https://hacks.mozilla.org/2018/07/introducing-the-d-web/>

25 See for example Web3 Foundation. <https://web3.foundation/>

26 A longer list can be found in '2019 Trend Report for Journalism, Media and Technology', from Future Today Institute. <https://futuretodayinstitute.com/2019-journalism-media-tech-trends/>

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