Blockchain Technologies and Media Transformation

Momčilo B. Bajac and Maja M. Vojinović

University UNION Nikola Tesla in Belgrade

Faculty of management, Sremski Karlovci

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Author Note

Momčilo B. Bajac https://orcid.org/0000-0003-2115-6373

Maja M. Vojinović https://orcid.org/0000-0001-7263-9549

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Correspondence concerning this article should be addressed to Momčilo Bajac, Faculty of management in Sremski Karlovci, Njegoševa 1, 21205 Sremski Karlovci, Serbia. Email: momcilo.bajac@famns.edu.rs

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Abstract

In this paper we start from the assumption that social dynamics and cultural-civilizational progress cannot be viewed separately from the social history of the media as complex technological-communication structures. In this paper we deal with the influence of new disruptive technologies DLT (Distributed Ledger Technologies) better known as blockchain technologies which, thanks to the latest technological solutions, have great potential for transforming the media and journalism as a profession, thus we have explained the technological concept on which they are based. We will discuss the concept of personalized blockchain journalism and propose a user economy model that guarantees the financial sustainability of the platform. Observing information as a user experience, we have discussed the possibility of adequate cognitive response of users in conditions of information saturation, and raised the issue of structuring information in designing a journalistic platform on the blockchain, as an ecosystem that will distance itself from existing polluted media space. Finally, we have proposed a topic for further reflection and scientific research, which is the latest technological transition based on quantum computing, artificial intelligence and the Metaverse, which will provide a completely new user experience in 3D virtual space, where user avatars will rely less and less on traditional media and journalism as we know it today.

Keywords: media, personalized journalism, blockchain, user experience, user economy

Blockchain Technologies and Media Transformation

The journalistic profession and the media have a significant role in filling the public space with information and facts on the basis of which citizens can achieve active social engagement in the search for truth in all spheres of public life.

> Throughout journalism, the society monitors the state of its institutions and its future and reacts when necessary. Such journalism is essential for democracy, because a person cannot self-constitute his own meaning and purpose if he does not provide complete and accurate information about events beyond his scope. He must know what happened, how and under what circumstances. Work, health, future, life often depend on that knowledge. He has to work, to improve himself, to help others, to raise a family (Bjelajac & Filipović, 2018).

During the twentieth century, the mass media emerge and develop simultaneously with the emergence of modern political society, thus it comes to their merging, actually, the mass media become a function of political society. This symbiosis of the media and political society soon becomes a marriage of interest, which leads to pollution of the media space, blurring of the user experience and even open media violence. The role of the media and journalism has been completely perverted, and the factors of social integration and stabilization are becoming one of the most important factors of social disintegration and destabilization.

> Journalism is becoming an easy weapon for the propaganda of powerful alienated interests that are gradually destroying social relations. Permanent pressure on the media, over time, demoralizes even the most moral owners and editors. The media is becoming depressed,

and depression is spreading like an epidemic horizontally, to all media in the community, and vertically, from the owner to the last media representative (Bjelajac & Filipović, 2018).

Nowadays, when trust in the media and the journalistic profession is at a historically lowest level, it is necessary to find new organizational forms, and channels of communication and redefine the role of the journalistic profession, so that journalism regains its basic function. The media should adhere to the basic principles of journalistic ethics, which concern objective, impartial and truthful reporting and provision of information, striving to promote positive values (Bjelajac & Merdović, 2018, pp. 298–299).

The Internet and WEB2.0 are directly responsible for the enormous concentration of power of platforms such as Facebook, Amazon, YouTube, Twitter and Google. These platforms have gained not only media, and economic, but also enormous political power by enabling a new era of surveillance capitalism and an "online world that is not subject to earthly laws" (Zubof, 2019). "Google as a pioneer, inventor of surveillance capitalism" (Zubof 2020) forces its users to trade their behavioural data for an information and connection service. These data are transformed by the method of machine learning or artificial intelligence into highly profitable algorithmic products that predict the behaviour of Google users. One part of these data represents the "behavioural surplus that becomes the basis of a completely new logic of accumulation" (Zubof, 2020), not only for commercial purposes, yet also as the main tool for social control. Surveillance capitalism has become the basic model of information capitalism online. With these technological changes on the Web2.0 platform, even journalism has failed to keep up. Journalism and journalists found themselves on the periphery of the information space on the Internet. "The reason why platform operators, not content creators, are able to earn more revenue is that they spent their time and effort building the space where people gather" (Kim, B. and Yongik, Y. 2018). In addition, journalism is threatened by the "responsibility for the space in which people

gather has been passed on to non-journalists who are platform operators" (Kim & Yongik, 2018).

Blockchain and Journalism

With the advent of interactive WEB2.0 and social networks, participatory or citizen journalism has been established as an "act of a citizen, or group of citizens, playing an active role in the process of collecting, reporting, analyzing, and disseminating news and information" (Teixeira et al., 2020) through social networks. Although their influence on the formation of public opinion has become very great, they face the problem of unfair monetization of the products of their work and censorship of content, especially in recent years during the US elections, the COVID–19 crisis and the war in Ukraine.

In order to successfully overcome the crisis in which journalism finds itself, internet journalism can use the opportunity to solve three acute problems with the help of new technologies: the problem of trust, the problem of monetization and the problem of ethical management of the publishing platform. One online journalistic project needs a platform and tools for publishing, a monetization system, i.e. a financial model of sustainability, and a management model which guarantees that the platform will function ethically and in accordance with journalistic standards. The platform can be set up as a decentralized dApps application on one of the existing blockchains, such as Ethereum, monetization is based on cryptocurrency or tokens, management is programmed by smart contracts, and content metadata is stored on the blockchain. Journalists who start in blockchain journalism are expected to take responsibility for the platform at the same time, i.e. to become its owners.

The Term of Blockchain

Blockchain as well as other Distributed Ledger Technologies (DLTs) are technologies enabling parties with no particular trust in each other to exchange any type of digital data on a peer-to-peer basis with fewer or no third parties or intermediaries. The Bitcoin blockchain released a person or entity

under the pseudonym Satoshi Nakamoto into the hacker community in 2008, when he published a paper entitled Bitcoin: A Peer-to-Peer Electronic Cash System (Nakamoto, 2008). The blockchain is led through a distributed network of participants who follow the same rules defined by the algorithm to verify and add transactions to the blockchain. The most well-known consensus mechanism is the "Proof of Work", which relies on the processing power of computers. The whole process is called “mining”, and miners are rewarded with cryptocurrency for the processing power involved when validating the transaction. The basic values on which this technology is based are security, decentralization, immutability, transparency, privacy, and openness.

Ethereum blockchain has completely revolutionized the concept of decentralization by extending the possibility of transactions to all types of value, not just monetary transactions. Ethereum is a general-purpose blockchain, which can have different types of decentralized applications running on it. Its contribution is reflected in the concept of smart contracts, WEB3.0 a new stage in the evolution of the Internet, and decentralized autonomous organizations (DAO). Smart contracts define rules like a regular contract, and automatically enforce them through a code.

They are self-executing, cannot be erased, and interactions with them are irreversible. “WEB 3.0 on the blockchain is distributed to a huge number of computers, and there are decentralized platforms free from all forms of pressure, censorship and surveillance” (Brekke, 2019). DAOs function through rules coded as computer programs, and smart contracts based on which actions are performed in favour of shareholders. DAO is a computer algorithm that applies token ownership rights, contractual obligations, and business logic rules. Token owners accumulate power and capital by founding organizations with their own money and thus gain real decision-making power. Through the Initial Coin Offer – ICO they gain complete financial independence from any central authority.

One calls this a property-user economy. Blockchain technology and the mechanism of smart contracts can solve problems related to the unauthorized use of intellectual property as well as other unfavourable relations in the value chain

of the media industry, which has always been to the detriment of authors as value creators. Blockchain can be permissionless, open to anyone who wants to access it, then permissioned with access only to authorized persons, and a hybrid that provides both, making it suitable for decentralized news platforms.

Model of Personalized Journalism in Decentralized Blockchain Ecosystem

We present a model of personalized journalism on a distributed network proposed by the authors Byeowool Kim and Yongik Yoon from the School of IT Engineering, Sookmyung Women's University in Seoul, 2018. This project was still under development at that time, especially in terms of user economy, i.e. the system of financial incentives necessary for the survival of the platform. As new funding models for the Ethereum blockchain have emerged in the meantime, we will propose a model that guarantees the economic viability of the platform.

Kim and Yongik were dealing with the issue of distributing and retaining data in journalism and proposing a new model of hybrid blockchain for journalism, in which the blockchain journalism platform became a distributed database of related articles. They proposed a new Proof of Sharing model with a list of pre-approved journalists who could only submit articles to the chain, a new set of self-regulating consensus rules governing the platform, and finally a personalized article selection mechanism for users – personalized journalism.

In the case when there were a small number of publishing houses on the journalistic market, they behaved monopolistically.

> The press had authority over setting agendas, and readers had no choice but to receive the news that the press decided was important to them. At that time, the press called readers 'the masses' and treated them as one mass (Figure 1). A mass by definition is not able to choose the news according to personal wishes (Kim & Yongik, 2018).

When they took positions, it was very difficult for the competition to enter the market, so they could manipulate information as much as they

wanted and lead public opinion in the direction they wanted.

When the Internet came along, the situation changed dramatically (Figure 2). Internet platforms provided users with many more choices, and advertisers were given an additional opportunity to meet consumers, it turned out, in a much more efficient and cheaper way. The development of mobile devices has further expanded this space. People spent more and more time on new media and got used to receiving content on the Internet and mobile phones. “Subscription fees through traditional methods have dropped drastically. Besides, Internet media companies or individual content producers have entered the market, further competing for limited advertising expenditures” (Kim & Yongik, 2018). The struggle for one more click turned journalists to sensationalist news, "easier reading", and even fake and phishing news. As a result, public confidence in the press has declined. “Although it looked like an individual choice, article layouts and recommended algorithms were tightly locked to the secrecy of the platform operators. There was also a problem with privacy protection” (2018). Very soon Web platforms began to resemble traditional centralized monopolistic media, and even treated their users much worse than traditional media, which due to technical limitations did not have a personal relationship with users, as was the case with interactive Web environments.

A common problem in both cases is the power of centralized authorities to conduct editorial policy independently of user interests. Blockchain opens the possibility of a decentralized network, a new relationship between journalists and readers when readers and journalists can meet directly (Figure 3). As we mentioned before, a hybrid blockchain is more appropriate for blockchain journalism than public or private blockchain, because journalists and consumers who participate in the network have different roles. Journalists are professional authors of articles with permission to post such articles while users have the opportunity to read, validate and rank them. Traditional media have had the power to manipulate public opinion. Today's internet platforms place a large number of articles that are influenced and selected by platform operators burdened with censorship, commercial interests, collection of behavioral surplus, etc. Both have led to a drop of public confidence in the press. The common point of both problems is

that centralized government and "In distributed journalism, readers and journalists can meet directly" (Kim & Yongik, 2018). A hybrid, not a public or private blockchain, is suitable for the needs of journalism platforms, because there are heterogeneous participants in the chain. Journalists write articles, validate them and put them on the chain, because they have permission to do so, while users have access to the chain to read articles, rate, recommend and share them. In addition, readers have access to data for all generated articles and can receive news via automated referral algorithms.

"Proof of sharing is the process of getting certified by preapproved journalists to link to an existing article chain when an article is created" (Kim & Yongik, 2018). The number of journalists is not limited and they build their reputation by the quality of articles, evaluations and comments by other journalists and users.

"Journalist A creates a new article. The article goes through a redundant verification procedure for journalist B" (Figure 4). "This is the process of preventing similar articles from appearing many times. Journalist B checks whether the article is truly new" (Kim & Yongik, 2018). Duplicate verification consists of simple comparisons between new and existing articles on the chain. "This does not require any subjective judgment" nor too much engagement (2018). It is enough that one "randomly extracted journalist with an automatic duplicate check can sufficiently judge it" (2018). Then all the other journalists get confirmed articles to which they can leave short comments, which can be positive or negative, or not comment at all. "The more comments that are left in a limited amount of time, the more valuable the article is, and the more it is worth sharing. The time for commenting should be limited to ensure timeliness" (2018).

This process of consensus, Proof of Sharing, differs from mining activities, Proof of Work, and public blockchain, because journalism has different characteristics from the general process of the transaction on the blockchain, for example, money transactions. "An article includes a viewpoint of the reporter looking at the facts. Putting a reporter's viewpoint in the article does not mean that the article is false, it just convays one aspect of the fact" (Kim & Yongik, 2018). Therefore, Proof of Sharing is not censorship of the article but the process

of authenticity, whether it is worth sharing or not. As we can never recommend clear criteria for false news due to respect for freedom of expression, the validation of the article continues even after it is posted on the public blockchain, by users and journalists. If the news is found to be false, and this is repeated several times (which is defined by the consensus algorithm), the journalist is removed from the platform. This public part of the blockchain or agora is a public space for comment and argumentation of the participants and remains permanently written on the blockchain.

This setting on the blockchain opens the possibility to select the final set of articles individually, according to the digital identities of the network users. Personalization is done on the basis of the digital identities of consumers who can selectively display information about themselves (education, affinities, gender, age, etc.) when accessing the platform.

> Personalized recommendation systems will run almost automatically, unlike platforms or media outlets that have authority over all the agenda settings. This is because the above process is completely independent of agenda settings. Given that a third party cannot control all journalists participating in a blockchain and cannot manipulate all individual agenda settings, it is virtually impossible to control the media and manipulate public opinion in personalized journalism (Kim & Yongik, 2018).

Platforms can be specialized in different spheres of life. From political, economic, cultural, artistic, sports, scientific, health and other topics, with the possibility of segmentation to completely specific interests. Personalized journalism delivers articles with value to share, minimizes the power held by both, traditional journalism and new platform operators and creates a public area, the Agora, where opinions of information users are collected. In this way, the critical public can follow the alienated power and contribute to the overall social development.

User Economy – Model of Journalism Economic Sustainability on Blockchain

Blockchain technologies are surprising, day by day, with their original and innovative solutions related to the models of economic sustainability of the platform. Firstly consider traditional ways, which are subscription and advertising revenue.

Subscription – there is currently very little chance that platform users will accept subscriptions as a way to access information as they are used to receiving it for free. However, they do not count the price they pay by providing their personal and behavioural data that centralized platforms like Facebook very skillfully monetize on the advertising market, and even for the needs of dubious government agencies. There is still a lack of awareness of online privacy's importance and the danger of losing it. However, a subscription can be counted on, partly, if the platform provides the user with significant information for which he is willing to pay. Yet, as the category of incentive is very important for blockchain, i.e. the possibility for the user to earn by using the platform instead of paying, some platforms such as LBRY Odyssey reward users for posting content, comments, sharing and other activities that contribute to the growth of platforms.

Advertising is a proven category on internet platforms because it is based on the misuse and trade of our behavioral data. However, personalized referral systems are very attractive to advertisers who want to increase the effectiveness of their advertising by targeting appropriate consumers who give them their approval in accordance with their digital identity, in order to meet some of their needs. In order to maintain the independence and loyalty of users, blockchain journalism platforms avoid funding from advertisers.

ICO (Initial Coin Offer) is the most attractive financing model that guarantees platform independence and loyalty to the principles of decentralization. Tokenization enables a user economy based on real incentives in the form of exchangeable cryptocurrencies that finally have their equivalent in FIAT currencies, i.e. they have real purchasing power.

NFT (Non Fungible Tokens) can be part of the user economy of the

journalistic platform in the exploitation of

author's photography, video, text, sound and other media content thus controlling and monetizing their use and protecting copyright, therefore digital footprint of author's work in the form of metadata located on the blockchain and smart contracts guarantee that their exploitation will be automatically charged to the author's crypto wallet (Ali & Sikha, 2021).

Finally, we can summarize the areas in which blockchain could improve the work of journalists:

- decentralized publishing platform, without central ownership and control;
- distributed publishing environment to combat censorship;
- financial independence thanks to the ICO (Initial Coin Offer);
- tools for controlling the origin and integrity of content;
- automated market for content and rights management;
- distributed publishing environment without the possibility of someone removing the content;
- widespread cryptocurrency with low or free transactions that facilitates the charge of very small amounts for the use of media products;
- cryptocurrency or token make it easier for media companies to encourage users to collaborate, create and share content.

One of the preconditions for the wider implementation of the blockchain and the economy of users based on micropayments in cryptocurrencies is the number of personal cryptowallets on the blockchain. There are 82.22 million of them so far (Statista, 2022), but this number is expected to grow rapidly with the growth of new decentralized applications and space on the Metaverse.

Information As a User Experience

The basic unit of communication in any media space is information. Conscious experience of information in the act of communication is called user experience. With each new "media sphere that is formed around the dominant medium" (Debre, 2000), the user experience increases and it leads

to a "recomposition of the senses" (Debre, 2000). Also, with an increased cognitive engagement, there is an improvement in a person's intellectual abilities and a deeper understanding of the reality around him. In the modern age, the journalistic profession has played a very important role in organizing information into a user experience, as a precondition for understanding the increasingly complex social reality. The proliferation of information that has come with the Internet and new communication technologies has led to an oversaturation of information and there is still no serious research on how this affects a person's cognitive architecture and ability to understand reality.

The Internet and the "hypersphere" (Debre, 2000) were created on the basis of the third, digital technological revolution. The basic unit that carries information is neither a word, nor a letter, a sound, a picture, but a digit, a binary code made up of one and zero. These binary codes that carry information can be combined indefinitely to create multimedia. The limiting linearity of media content is lost and replaced by layers. This has led to the production of information that not only reflects our reality, but regenerates it, thus increasing the user experience to unimaginable proportions. In the case of information overload, the human cognitive architecture is designed to limit the flow of information into "working memory" (Mayer, 2005). In conditions of increasing the amount of information per unit time, the logical reaction of the cognitive mechanism is to reduce the duration of information. This explains the fact that the generation growing up in the multimedia hypersphere chooses short and poor, and avoids long and complex information, loses the ability to concentrate and focus, the ability to better understand the environment in which lives. It is an excellent base for media manipulation and directing society in the interest of the global technocratic elite.

Topics for Further Research and Reflection

After all, there is a justified question, whether there is information limit and what happens if that limit is exceeded. From the technical point of view, there is no information limit, which is announced by the new generation

of computers, quantum computers. If the basic unit that transmits information in today's computers is a bit, in a quantum computer it is a qubit (quantum bit). The principle of operation of quantum computers is based on the quantum superposition of "basic states" of quantum subatomic particles. Unlike a classic bit that can only be in a state corresponding to 0 or 1 in an electrical circuit, a qubit can be in an infinite number of states at once. From the point of view of human cognitive architecture, there is information limit, and the question arises to what level the quantity of information can be increased at the expense of information content, i.e. simple sensory stimuli in relation to rational reaction to it, and to which moment that man completely loses a real relationship towards its external environment.

These are the challenges of the Metaverse, a virtual 3D space with the possibility of unlimited user experience. What kind of transformation the media and the journalistic profession must experience in order to be functional and play a positive role in this new media space in which, despite all the challenges, a person would remain aware of his external environment and build a rational critical attitude towards events in it? Journalists who become owners of the platform in the future must take into account the cognitive predispositions of users in the conditions of information overload. That is, how to organize information and user experience on the platform, how to motivate and with what incentives to address the audience. Personalized journalism with a well-designed user economy, incentives, consensus mechanism, respect for users and their preferences, could be a solution for the future of journalism. Journalists will have to find their small niche in the Metaverse and run their platform like any other private business. Blockchain technologies already offer great opportunities for the transformation of journalism in that direction.

The metaverse is an evolving concept, but is already finding practical applications on the existing WEB 3.0 network. It will be composed of a series of metaverses, virtual 3D spaces for different purposes and will be shaped as an alternative digital reality, a decentralized collective 3D virtual world in which users will be able to participate in various activities through their digital

avatars. Further development of Metaversum will require even greater user connectivity, improved human interfaces, complete decentralization, powerful Internet infrastructure, independent economy of creators, advanced user experiences with many new contents, which will radically redefine the very concept of media and information. The media industry will have to look for new ways to provide the audience with a direct user experience in the Metaverse, as it will rely less and less on traditional media.

Conclusion

In the ranking made in 2016, blockchain took fifth place in the list of five technologies with an exceptional impact on the further development of the world. After six years, we can state that blockchain has shaken the world. We cannot disagree with the statement of Voinea (2019) that the technical conditions for blockchain technology in journalism have already been created, which will further reflect on culture and society as a whole. Although there is a lot of untapped potential, there is currently no widely accepted blockchain application that would revolutionize journalism. Some existing projects in multiple areas "could distort journalism: monetization, distribution, user feedback, attribution, trust and data retention" (2019). As these platforms evolve, they will become ecosystems, much more than simple websites where people can gather, chat and share content. This social ecosystem, still in its infancy, is fully decentralized and with its user economy, has the potential to reinvent society shortly. The world of the future must be decentralized. Decentralization must stand before us as a lighthouse on the foggy and turbulent sea of the transition of the post-democratic world towards the distribution of power among a much larger number of social actors than has been the case so far. To have a better future, creative thinking about the present must not be burdened with prejudices, especially about new technology, because history has taught us that technological revolutions always precede vel any social changes (Bajac, 2019). Joseph Lubin, the co-founder of one of the largest DAO platforms, ConsenSys, brilliantly noted that if we want to build better economies and societies, we can't be content

to walk down the "street with posters on sticks" - instead of occupying Wall Street, it would be more useful to "invent our street" (Tappscot, 2016). There is great optimism in the Internet community regarding the possibility of new disruptive technologies to enable a fairer and more humane society, which is currently "sliding" towards an uncertain dystopia.

References

Ammous, S. (2018). *Bitcoin standard*. John Wiley & Sons, Inc.

Ali, M., &Sikha B. (2021). Introduction to NFTs: The future of digital collectibles. *International Journal of Advanced Computer Science and Applications*, *12*(10), 50–53. https://thesai.org/Downloads/Volume12No10/Paper_7Introduction_to_NFTs_The_Future_of_Digital_Collectibles.pdf

Bajac, M. (2019). Kulturna prava, kulturna ekonomija i još po nešto [Cultural rights, cultural economy, and more]. *Kultura polisa*, *15*(3), 29–41.

Bjelajac, Ž., & Filipović, A. M. (2018). Uticaj masovnih medija na degradaciju savremenog društva [Influence of mass-media on degradation of contemporary society]. *Kultura polisa*, *15*(4), 9–21.

Bjelajac, Ž. & Merdović, B. (2018). Senzacionalizam u medijima kao uzrok destabilizacije politike suzbijanja kriminaliteta [Sensationalism in media as a cause of destabilization of criminal policy]. *Kultura polisa*, *15*(35), 289–300.

Brekke, J. K. (2019). Disassembling the trust machine, [Unpublished doctoral dissertation Thesis, Durham University, Geography Department]. http://distributingchains.info/wp-content/uploads/2019/06/DisassemblingTrustMachine_Brekke2019.pdf

Debre, R. (2000). *Uvod u mediologiju* [Introduction to mediology]. Clio.

Kim, B., & Yongik, Y. (2018). *Journalism model based on blockchain with sharing space*. Sookmyung Women's University in Seoul: School of IT Engineering. https://www.researchgate.net/publication/329952663_Journalism_Model_Based_on_Blockchain_with_Sharing_Space/link/5c2578d2a6fdccfc706d10a3/download

Mayer, E. R. (2005). *The Cambridge Handbook of multimedia learning*. Cambridge University Press.

Nakamoto, S. (2008). Bitcoin: A peer-to-peer electronic cash system. *Bitcoin*. https://bitcoin.org/bitcoin.pdf

Tapscott, D., & Tapscott, A. (2016). *Blockchain revolution*. Penguin Random House.

Teixeira, L., Amorim, I., Silva, U.A., Lopes J.C., & Filipe, V. (2020). New approach to crowd journalism using a blockchain-based infrastructure. In P. D. Haghighi and I. Salvadori (Eds), Proceedings of the *18th International Conference on Advances in Mobile Computing & Multimedia* (pp. 170–178). Association for Computing Machinery New York.

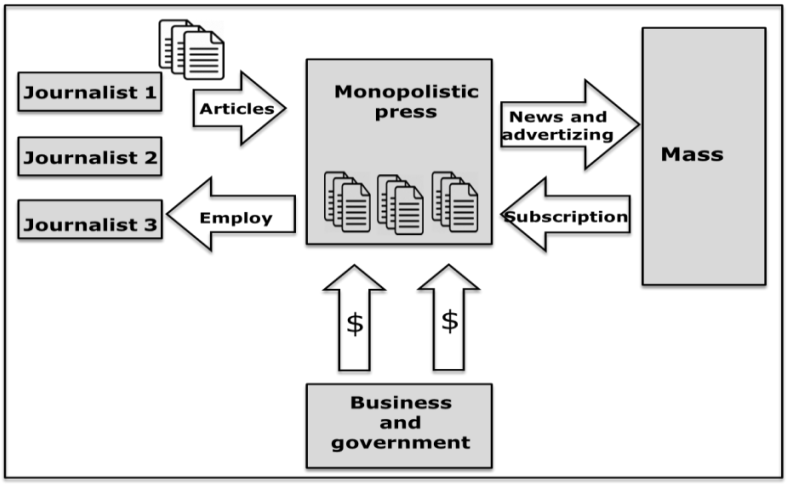
Voinea, V. D. (2019). Blockchain for journalism – potential use cases. *Social Sciences and Education Research Review*, *6*(2), 244–257.

Zubof, Š. (2020). *Doba nadzornog kapitalizma*[The age of surveillance capitalism]. Clio.

Appendix

Figure 1.

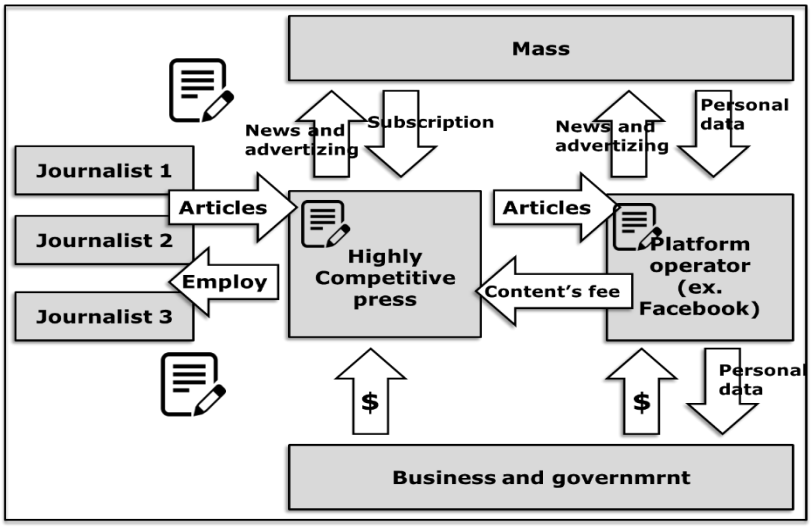
Centralized system with a monopolistic press



Note. Kim & Yongik, 2018, p. 6.

Figure 2.

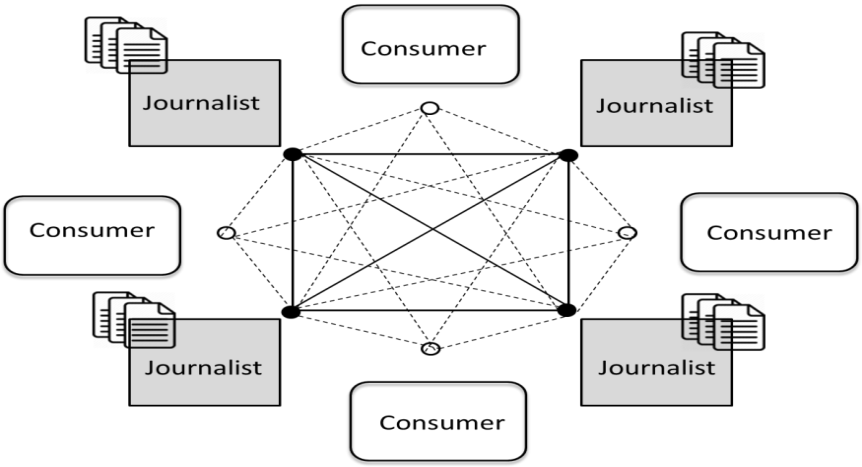
Centralized system with highly competitive press and platform operator



Note. Kim & Yongik, 2018, p. 6.

Figure 3.

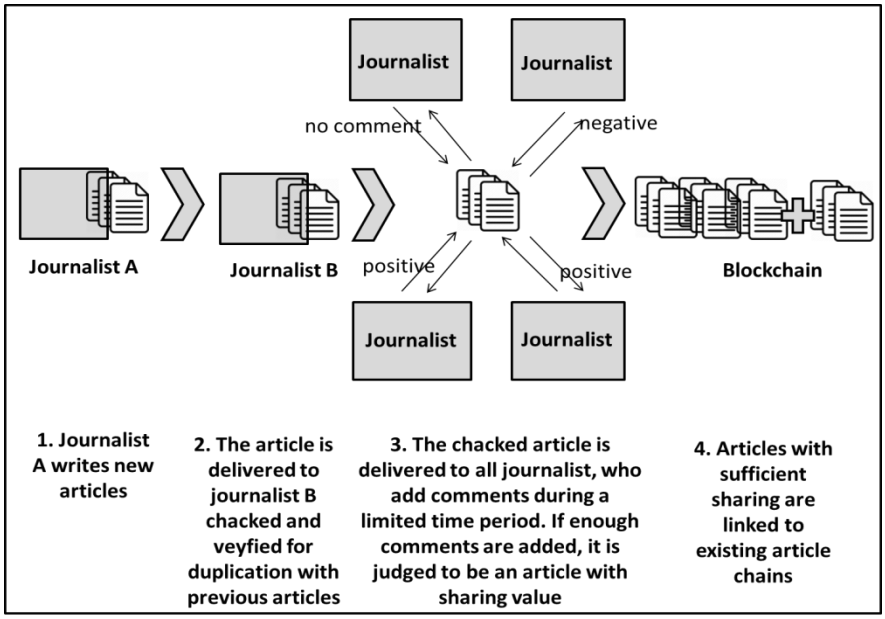
Distributed hybrid blockchain system for journalism platforms



Note. Kim & Yongik, 2018, p. 7.

Figure 4.

Proof of Sharing Process



Note. Kim & Yongik, 2018, p. 8.

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Blokčejn tehnologije i transformacija medija

Momčilo B. Bajac i Maja M. Vojinović

Univerzitet UNION Nikola Tesla u Beogradu

Fakultet za menadžment, Sremski Karlovci

Sažetak

U ovom radu polazimo od pretpostavke da se društvena dinamika i kulturološko-civilizacijski progres ne mogu posmatrati odvojeno od društvene istorije medija kao kompleksnih tehnološko-komunikacijskih struktura. Bavimo se uticajem novih disruptivnih tehnologija DLT (Distributed Ledger Technologies) poznatijim kao blokčejn tehnologije koje zahvaljujući najnovijim tehnološkim rešenjima imaju veliki potencijal za transformaciju medija i novinarske profesije, pa smo zbog toga objasnili tehnološki koncept na kojem se one baziraju. Obrazlažemo koncept personalizovanog novinarstva na blokčejnu i predlažemo model ekonomije korisnika koji garantuje finansijsku održivost platforme. Posmatrajući informaciju kao korisničko iskustvo, razmatramo mogućnost adekvatnog kognitivnog odgovora korisnika u uslovima prezasićenosti informacijama, i iniciramo pitanje struktuiranja informacija u dizajniranju novinarske platforme na blokčejnu, kao ekosistema koji će se distancirati od postojećeg zagađenog medijskog prostora. Na kraju smo predložili temu za dalje promišljanje i naučno istraživanje, a to je najnovija tehnološka tranzicija zasnovana na kvantnom računarstvu, veštačkoj inteligenciji i Metaverzumu, koji će omogućiti potpuno novo korisničko iskustvo u 3D virtualnom prostoru, u kome će se avatari korisnika sve manje oslanjati na tradicionalne medije i novinarstvo kakve danas poznajemo.

Ključne reči: mediji, personalizovano novinarstvo, blokčejn, korisničko iskustvo, ekonomija korisnika