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Natalia Karpiuk
Maria Curie-Skłodowska University in Lublin, Poland
ORCID: 0000-0001-6861-1885
natalia.karpiuk@umcs.pl

Blockchain as a Non-Standard Response to the Limitation of Positive Law in the Social Media Environment

Blockchain jako niestandardowa odpowiedź na ograniczenia prawa stanowionego w środowisku social mediów

ABSTRACT

Nowadays, most people use the Internet and social media. However, the Internet is a space in which there are various types of violations that are difficult to counteract with the use of legal institutions and tools, which are often not compatible with the fast-developing environment. The COVID-19 pandemic, which forced people to rearrange their lives in all fields and often move a significant part of their activities to the network, intensified negative phenomena including spreading false and socially harmful information. This article is an original reflection on the effectiveness of Polish legislation against the backdrop of the current activities of European Union bodies aimed at increasing the security of Internet users on the example of counteracting the dissemination of misinformation. In the author's opinion, both national and EU authorities do not seem to be interested in searching for alternatives based on technological solutions that could foster prevention of such infringements on the Internet, but rather focus on improving conventional protection models, whose effectiveness seems to be questionable. The article aims to start an interdisciplinary debate on the possibility to reduce the number of negative phenomena in the social media environment using blockchain technology, including the discussion on the possibility of developing appropriate regulations in this regard.

Keywords: blockchain; limitation of positive law; social media; Internet; EU authorities; technological solutions

CORRESPONDENCE ADDRESS: Natalia Karpiuk, MA in Law, Assistant Lecturer, Maria Curie-Skłodowska University (Lublin), Faculty of Law and Administration, Institute of Law, Plac Marii Curie-Skłodowskiej 5, 20-031 Lublin, Poland.

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INTRODUCTION

It is virtually impossible to definitively determine the extent of cybercrime and the scale of infringements committed by Internet users. The problem of underestimation may be caused by the lack of appropriate measurement tools to provide a reliable result. In Poland, statistical research on cybercrime conducted by the General Police Headquarters of Poland ends in 2012,[1] but legal and economic press, referring to police statistics, estimates that the phenomenon is growing, which does not go hand in hand with the effectiveness of offence detection. According to experts, the problem is rooted in, i.a., incorrect classification of offences by the law enforcement agencies, not reporting them by the victims and often a cross-border element.[2] New technologies, and especially the fast pace of changes occurring in their area, make this matter particularly difficult to address in normative terms.[3] Although the legislature has the power to put forward an initiative to establish a national system of cybersecurity,[4] but the scope of regulation allows a conclusion that the tools provided therein would not provide effective protection to the individual whose interest has been violated. The prospect of creating stable, precise and clear legislation protecting individual Internet users seems to be a matter of far future. The lack of understanding of certain technological phenomena and trends should not, however, lead to abandoning the search for new solutions, especially when the legal tools and institutions used so far have not proved to be good enough. This article is intended to start an interdisciplinary discussion on the benefits of blockchain technology and the possibility of employing it for making legal regulations aimed at more effective protection of Internet users, including social media.

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[1] *Przestępstwa w sieci*, 2013, https://statystyka.policja.pl/st/informacje/85606,Przestepstwa-w-sieci.html [access: 22.10.2021].

[2] See *Hakerzy mają się w Polsce dobrze. Problem policji*, 2021, https://businessinsider.com.pl/technologie/nowe-technologie/cyberprzestepstwa-w-polsce-statystyki/zrn11l7 [access: 9.10.2021]; K. Kucharczyk, *Liczba ataków hakerskich rośnie a wykrywalność spada*, 2021, www.rp.pl/biznes/art8648591-liczba-atakow-hakerskich-rosnie-a-wykrywalnosc-spada [access: 9.10.2021]; L. Krakowiak, *Cyberprzestępstwa w Polsce są statystycznie niewidoczne*, 2019, www.computerworld.pl/news/Cyberprzestepstwa-w-Polsce-sa-statystycznie-niewidoczne,413041.html [access: 9.10.2021].

[3] In more detail: W. Konaszczuk, *Cybersecurity Threats in the Sectors of Oil, Natural Gas and Electric Power in the Context of Technological Evolution*, "Studia Iuridica Lublinensia" 2021, vol. 30(4); I.A. Jaroszewska, *Wybrane aspekty przestępczości w cyberprzestrzeni. Studium prawnokarne i kryminologiczne*, Olsztyn 2017, p. 23.

[4] In more detail: M. Karpiuk, *Organisation of the National System of Cybersecurity: Selected Issues*, "Studia Iuridica Lublinensia" 2021, vol. 30(2); idem, *The Local Government's Position in the Polish Cybersecurity System*, "Lex localis – Journal of Local Self-Government" 2021, vol. 19(3); K. Chałubińska-Jentkiewicz, M. Karpiuk, J. Kostrubiec, *The Legal Status of Public Entities in the Field of Cybersecurity in Poland*, Maribor 2021; M. Rogalski, *Projekt ustawy Prawo komunikacji elektronicznej – zagadnienia wybrane*, "Krytyka Prawa. Niezależne Studia nad Prawem" 2021, vol. 13(2).

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The article uses the legal dogmatic method. The author reviewed and analysed the literature on the operation of blockchain network technology in its theoretical outline and the interpretation of statistical results allowing to draw certain conclusions, which she has juxtaposed with the legislation currently in force.

ESSENCE OF THE RESEARCH PROBLEM

Blockchain technology is a variant of the distributed registry technology[5] and is commonly associated with cryptocurrency trading on the Internet, which should not be surprising since it was first used in 2009[6] for posting financial transactions made with the bitcoin, based on the concept presented by S. Nakamoto in 2008.[7] According to the original idea of S. Nakamoto, a network built from non-modifiable blocks was supposed to guarantee security of transactions made on the Internet between virtual parties, who considered as the biggest threat the uncertainty of payment due to the risk of doubled payment of the funds made available.[8]

At present, there is no doubt that blockchain technology is a universal technology and its practical application goes far beyond just using it for online financial transactions, therefore many rightly argue that it should be considered a "technology of the future", which has the potential of a breakthrough innovation that will change the face of the modern Internet in many areas.[9]

The essence of this construct lies in its specific architecture, which is in a way a negation of the centralised network which now dominates the Internet. As early as in the1960s, P. Baran, in a report developed for RAND Corporation, noticed the advantage of distributed networks over wholly centralised or partially decentralised hierarchical structures, considering them more stable and resistant to external interference causing e.g. a break in the network, i.e. in a specific connection existing

[5] K. Ciupa, *Warianty zastosowania koncepcji blockchain a modele ich doboru*, "Studia i Prace Kolegium Zarządzania i Finansów SGH" 2019, no. 173, p. 91.

[6] *Leksykon pojęć na temat technologii blockchain i kryptowalut*, ed. K. Piech, 2016, www.gov.pl/documents/31305/0/leksykon_pojec_na_temat_technologii_blockchain_i_kryptowalut.pdf [access: 20.10.2021]; D. Ginsberg, *The Building Blocks of Blockchain*, "North Carolina Journal of Law and Technology" 2020, vol. 4, p. 5, 472.

[7] S. Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System*, https://bitcoin.org/bitcoin.pdf [access: 20.10.2021].

[8] *Ibidem*, p. 1.

[9] Cf. W. Szpringer, *Fintech i blockchain – kierunki rozwoju gospodarki cyfrowej*, "Studia BAS" 2019, no. 1, p. 10; K. Ciupa, *op. cit.*, p. 90; J. Gosh, *The Blockchain: Opportunities for Research in Information Systems and Information technology*, "Journal of Global Information Technology Management" 2019, vol. 22.

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between its participants.[10] In his publication, he distinguished three basic types of networks: centralised, decentralised and distributed. As assumed by P. Baran, the foundation of a centralised network was a common, single, central node, whose task was to distribute data between network participants (other nodes). A distributed network, on the other hand, was a network without an "overriding" controlling node. A decentralised network, on the other hand, was in a sense a mixed version of both, in which there were many nodes with functions only similar to the central node, but not actually being central nodes.

Initially, the author addressed the problem solely in the context of using a distributed network for military purposes, i.e. data collection and processing, but over time he noticed the potential of the new architecture concept as a general opportunity to build international e-mail systems as a cheaper alternative to traditional mail, while pointing to other functional applications of a distributed network.[11]

The search for new ways of application of the new technology has already led to its practical use in various sectors and industries, including the previously mentioned sector of financial services, but also logistics and supply chain processes.[12] This technology is also the foundation of increasingly popular smart contracts. As K. Piech points out, data collected in distributed databases can be treated as non-specific media for storing statements made by parties to legal transactions.[13] However, this is not a closed list of possible solutions and properties of blockchain technology, which is why new and ever bolder ideas to implement this architecture are being proposed more and more often, including e.g. to support democratisation of society, to support the formation of freedom movements[14] or to establish new alternative social media.

The COVID-19 pandemic announced on 11 March 2020 by the World Health Organization has forced people to go online in many aspects of their lives. This in turn caused an increase in the number of unwanted incidents, including it highlighted the extent of threats posed by the phenomenon which has been growing for years, i.e. the deliberate dissemination of misinformation (fake

[10] In more detail: P. Baran, *On Distributed Communications: I. Introduction to Distributed Communications Network*, August 1964, www.rand.org/content/dam/rand/pubs/research_memoranda/2006/RM3420.pdf [access: 20.10.2021], p. 1.

[11] Idem, *Some Perspectives on Networks – Past, Present and Future*, Palo Alto 1977.

[12] K. Ciupa, *op. cit.*, p. 90.

[13] *Leksykon pojęć na temat technologii blockchain…*, p. 9.

[14] K. Piech, *Blockchain a ludzie*, "Magazyn Polskiej Akademii Nauk" 2020, no. 1. In more detail: M. Friedlmaier, A. Tumasjan, I.M. Welpe, *Disrupting Industries with Blockchain: The Industry, Venture Capital Funding, and Regional Distribution of Blockchain Ventures*, 2018, https://scholarspace.manoa.hawaii.edu/bitstream/10125/50333/1/paper0446.pdf [access: 20.10.2021].

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news) by users[15] on the Internet, which the European Commission described as an "infodemic".[16]

It seems that the implementation of adequate technological solutions (network architecture), especially in areas where other instruments seem not to be fully effective, can provide key support for conventional (legal) forms of protection of Internet security in the broad sense, the effectiveness of which depends, e.g., on the detection of the offender of a particular operation, the type of the operation and other key data. In many cases, the difficulty in tracing the actions taken by the offender or the inability to find such traces may result in the ineffectiveness of the models provided for in the applicable law.

BLOCKCHAIN AS A DISTRIBUTED NETWORK TECHNOLOGY

The concept of blockchain involves the collection of data in a decentralised, distributed and synchronized database, the operation of which is based on open protocol standards, which set out the technical standards and general principles applicable to all users.[17] As has already been mentioned, the arrangement of distributed network provides an alternative to a centralised architecture based on opposing values and *modus operandi*. Apart from extensive typologies and classifications systematizing models of "blockchain technology" in the broad sense,[18] its essence lies in a peculiar formula constructed based on interconnected cryptographic blocks, which are the basic building blocks of the block chain. The block as the primary link of the chain is structurally composed of a header (timestamp and Merkle tree root hash) which in a sense documents the moment of its creation and refers to the preceding block and the data that makes it possible to unambiguously define the operations contained in the block. The type of data depends on the type of chain (its purpose) and may contain various information determined by the type of transaction.[19]

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[15] See J. Jabłońska-Bonca, *„Wciskanie kitu" (w rozumieniu H.G. Frankfurta) na temat prawa w mediach. Z problematyki komunikacji erystycznej*, "Krytyka Prawa. Niezależne studia nad prawem" 2021, vol. 13(2), p. 253.

[16] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – European Commission Guidance on Strengthening the Code of Practice on Disinformation, COM/2021/262 final, https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=COM:2021:262:FIN [access: 16.10.2021].

[17] B. Bodó, J.K. Brekke, J.-H. Hoepman, *Decentralisation: A multidisciplinary perspective*, "Internet Policy Review" 2021, vol. 10(2).

[18] Cf. K. Ciupa, *op. cit.*, p. 91.

[19] J. Gosh, *op. cit.*; A. Rot, R. Zygała, *Technologia blochchain jako rewolucja w transakcjach cyfrowych. Aspekty technologiczne i potencjalne zastosowania*, "Informatyka Ekonomiczna. Business Informatics" 2018, vol. 4(50), p. 124.

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The nature of the connection between blocks means that newly attached blocks are permanently attached to all previously added blocks that determine its content, as the content of the new block is characterized by the content of the preceding blocks. Even the slightest interference or modification of the data disclosed in a given block automatically results in a recalculation and a new hash generated for all subsequent blocks, thus rendering impossible a change in the historical record without changing the entire transaction history.[20] The blocks, therefore, form an integral and inseparable whole, deliberately referred to as a "chain".

Blockchain technology, which is a formula opposite to a centralised network, gives everyone access to all the information generated for the blocks and stored in a distributed register, not just a centrally controlled entity that unilaterally controls and sets all the conditions for access to and use of the network.[21] The literature on the subject indicates disadvantages in the operation of distributed networks, which are related to the characteristics of architecture and seen in problems with its subsequent coordination and significantly reduced bandwidth relative to a centralised network. However, a properly functioning distributed network significantly reduces the risk of any actor taking control, which is an unquestionable positive quality and grants an advantage over centralised systems. In view of the above, distributed and decentralised networks built without a centrally controlled entity are a better solution for making structures whose effectiveness depends on guaranteeing privacy, censorship, availability and integrity of information about the properties of information security.[22]

The development of a network structure having such attributes is particularly important, as just over a decade ago J. von Dijk noted that the Internet of the twenty-first century was less and less controlled by the law and the Internet community, while becoming increasingly controlled by the market and technical standards, which in no way can be called neutral, and backed by new legal regulations,[23] which, in the opinion of the author, may inevitably cause conflicts in the area of the right to information and communication, the right of ownership and the right to privacy.[24] This seems to be a natural consequence of the fast pace of change and the complex matter, which is difficult to place in a strict normative framework.

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[20] *Leksykon pojęć na temat technologii blockchain…*, p. 5; P. Opitek, *Kryptowaluty jako przedmiot zabezpieczenia i poręczenia majątkowego*, "Prokuratura i Prawo" 2017, no. 6, p. 37. Cf. J. Gosh, *op. cit.*; F. Knirsch, A. Unterweger, D. Engel, *Implementing a blockchain from scratch: Why, how, and what we learned*, "EURASIP J. on Info. Security" 2019, vol. 2.

[21] B. Bodó, J.K. Brekke, J.H. Hoepman, *op. cit*.

[22] See *ibidem*; J.H. Hoepman, *Privacy Design Strategies*, [in:] *ICT Systems Security and Privacy Protection. SEC 2014. IFIP Advances in Information and Communication Technology*, eds. N. Cuppens-Boulahia, F. Cuppens, S. Jajodia, A. Abou El Kalam, vol. 428.

[23] J. van Dijk, *Społeczne aspekty nowych mediów. Analiza społeczeństwa sieci*, Warszawa 2010, p. 186.

[24] Cf. R. Maciąg, *Paradygmatyka Internetu. Web 2.0 jako środowisko*, Kraków 2013, pp. 96–97.

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Therefore, it should not be surprising that there is an increase in interest in the possibility of implementing technological solutions assuming equal rights and obligations of all users on uniform principles to build new social media. Since the development of blockchain was in fact driven by the desire to create a structure that performs the function of a database, which guarantees that the history of data is monitored and tracked, would it be worth using it as a building material for a space in which various infringements occur, and which, due to the special kind of environment, makes the effective prosecution particularly difficult?

CHARACTERISTICS OF THE SOCIAL MEDIA IN VIEW OF STUDIES CONDUCTED BY THE EUROPEAN COMMISSION

According to statistics prepared by Eurostat, 57% of EU citizens declared themselves as users of social networks (creating user profiles, posting messages or other posts on Facebook and Twitter, etc.), with 87% of those aged between 16 and 24[25]. Apart from being used for personal purposes, social media are also used eagerly by entrepreneurs for their business purposes, as evidenced by the fact that almost one in two companies (43%) in the European Union used at least one social networking formula for purposes directly related to their businesses,[26] including building the company image or marketing one's products (45% in 2019), or obtaining or responding to customer feedback, reviews or questions (29% in 2019). Some of them used social media for the purposes of internal communication, exchange of opinion or sharing knowledge within the company (14% in 2019).[27]

Social media provides a platform for fast and direct communication, allowing for the instantaneous flow of information between a virtually unlimited number of

[25] Eurostat, *Individuals – internet activities*, last update: 9.06.2021, https://appsso.eurostat.ec.europa.eu/nui/show.do?query=BOOKMARK_DS-053730_QID_-758A9195_UID_-3F171EB0&layout=IND_TYPE,L,X,0;GEO,L,Y,0;TIME,C,Z,0;UNIT,L,Z,1;INDIC_IS,L,Z,2;INDICATORS,C,Z,3;&zSelection=DS-053730INDICATORS,OBS_FLAG;DS-053730UNIT,PC_IND;DS-053730INDIC_IS,I_IUSNET;DS-053730TIME,2019;&rankName1=UNIT_1_2_-1_2&rankName2=INDICATORS_1_2_-1_2&rankName3=TIME_1_0_0_0&rankName4=INDIC-IS_1_2_0_0&rankName5=IND-TYPE_1_2_0_0&rankName6=GEO_1_2_0_1&rStp=&cStp=&rDCh=&cDCh=&rDM=true&cDM=true&footnes=false&empty=false&wai=false&time_mode=ROLLING&time_most_recent=true&lang=EN&cfo=%23%23%23%2C%23%23%23.%23%23%23 [access: 12.10.2021].

[26] Eurostat, *Social media use by purpose*, last update: 23.09.2021, https://ec.europa.eu/eurostat/databrowser/view/isoc_cismp/default/table?lang=en%20European%20Commission:%20DG%20Communications%20Networks%20Content%20and%20Technology [access: 12.10.2021].

[27] Eurostat, *Social media – statistics on the use by enterprises*, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Social_media_-_statistics_on_the_use_by_enterprises#Use_of_social_media_by_enterprises [access: 12.10.2021].

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interconnected users.[28] Due to these properties, social media can and are eagerly used as an ideal environment also for spreading misinformation. The research clearly shows a progressive trend in which social media have ceased to be used only to meet social needs, but also became an area of economic development, a platform for the functioning of various types of organisations and shaping political life.

The problem of disinformation was recognised by the European Parliament as early as in 2017, when it called on the European Commission to study the problem, in particular the scale of the problem and legislative perspectives of limiting the spread of false content. A study that was commissioned by the European Commission in January 2018 revealed one socio-demographic regularity, according to which the respondents who use social networks on a daily basis (aged between 14 and 24) expressed greater trust in the contents of online information sources (60% of the respondents).[29] The correlation between the frequency of use of social networking platforms and the degree of trust in the information provided online allows us to propose a thesis that online information sources can be expected, in the years to come, to dominate as leading information sources in the EU's society.

On 26 May 2021, the European Commission issued a Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – European Commission Guidance on Strengthening the Code of Practice on Disinformation,[30] addressed also to national governments and parliaments and other national authorities, political parties, media, civil society and Internet platforms. The guidelines were intended as a way of encouraging integrated action in the area of combating the general rise in disinformation and at the same time responding to the shortcomings of the most important efforts undertaken by the EU in the form of the self-regulatory Code of Practice on Disinformation which has been in force since October 2018 and was signed by the largest online platforms operating in the EU. This is not the only initiative of the European Commission in this matter.[31] The Commission considers that, while not

[28] In more detail: M. Radvan, *Taxation of Instagram Influencers*, "Studia Iuridica Lublinensia" 2021, vol. 30(2), p. 340.

[29] Eurobarometer, *Fake news and disinformation online*, March 2018, https://europa.eu/eurobarometer/surveys/detail/2183 [access: 18.10.2021], p. 10.

[30] COM/2021/262 final.

[31] Cf. A. Jaskiernia, *Problemy mediów w nowej strategii Unii Europejskiej „wzmocnienia odporności demokratycznej"*, "Studia Medioznawcze" 2021, vol. 1(84), p. 885. According to the information presented by the National Broadcasting Council of Poland, the signatories include Facebook, Google, Mozilla, Twitter, Microsoft, Tik-Tok. See Krajowa Rada Radiofonii i Telewizji, *Zwalczanie dezinformacji w mediach – zalecenia ERGA na podstawie kontroli przestrzegania „Kodeksu postępowania w zakresie dezinformacji"*, 2021, www.gov.pl/web/krrit/zwalczanie-dezinformacji-w-mediach---zalecenia-erga-na-podstawie-kontroli-przestrzegania-kodeku-postepowania-w-zakresie-dezinformacji [access: 16.10.2021]. According to the European Commission, potential signatories include also Vimeo, Clubhouse, Avaaz, Globsec, Logically, NewsGuard and WhoTargetsMe. See *Kolejne podmioty*

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free from defects,[32] the Code is "an innovative tool for ensuring greater transparency and accountability of online platforms, as well as a structured framework for monitoring and improving the platforms' policies on disinformation".[33] In view of the shortcomings observed by the Commission, it has decided to draw up guidelines which will form a strong, stable and flexible instrument to make online platforms more transparent, accountable and responsible.[34] The guidelines call for, among other things, an increase in the participation of other platforms which have not yet declared their "accession" to the EU Code and representatives of the Internet advertising industries, which could provide expertise to further improve the Code. It was also proposed to demonetise disinformation (to limit the opportunity to make money from disinformation), developing a common understanding of unauthorized manipulative behaviours and responding when they occur. The guidelines also pointed to the need to empower users, including by designing the architecture of the services of Internet platforms owners "in a way that it minimises risks linked to the spread and amplification of disinformation", which seems to be particularly important given the specificities of the environment, which can be considered as peripheral areas of legislation.[35]

The Code does not have any normative value and its effectiveness depends entirely on the voluntary attitudes of its signatories. The same applies to the guidelines presented by the Commission, which may be interpreted selectively by the authorities of the Member States. But it needs to be stressed that disinformation is not the only problem that may be faced by social media users.

CONCLUSIONS

Blockchain seems therefore able to be used as a potential response to the current problems of the operation of social media, allowing any user who has access to data on an equal basis, to trace the history of individual data placed on the network.

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chcą zwalczać dezinformację, 2021, https://ec.europa.eu/poland/news/211004_deinformation_pl [access: 16.10.2021].

[32] The Commission's assessment of the Code of Practice in 2020 has revealed significant shortcomings including inconsistent and incomplete application of the Code by the signatories and the lack of an appropriate monitoring mechanism. Cf. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – European Commission Guidance on Strengthening the Code of Practice on Disinformation, COM/2021/262 final, pp. 1–2.

[33] *Ibidem*, p. 1.

[34] *Ibidem*, p. 2.

[35] Cf. Krajowa Rada Radiofonii i Telewizji, *Fake news – dezinformacja online. Próby przeciwdziałania tym zjawiskom z perspektywy instytucji międzynarodowych oraz wybranych państw UE, w tym Polski*, Warszawa 2020, www.gov.pl/web/krrit/fake-news--dezinformacja-online [access: 19.06.2021].

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Internet users are increasingly supporting the idea of decentralised media. Proclaiming the necessity to build new media based on the independence of the network is not, however, typical only of social media users who perceive the dangers of functioning in an area where they have limited possibility to verify the content they receive and decide on their future. As early as in December 2019, J. Dorsey, Twitter's founder and CEO, shared his views on the need to decentralise the media, which he believed would be helped by the technology of distributed blockchain registries, which would contribute to changing the concept of moderation of the content reaching its users.[36]

It seems that the most effective variant of designing new media would be voluntary remodelling of the existing system of building internet platforms by their owners. The need for self-regulation may result from the internal imperative of guaranteeing basic rights to network users in an environment that is imperceptible to statutory law. The shortcomings of the legislature are therefore a stimulus to the emergence of a natural trend to seek alternative forms of securing the right claims of Internet users. Impulses among network users cannot, however, be a justification for competent state bodies to refrain from attempting to regulate the matter in question in a normative way, although the literature on the subject notes difficulties in regulating in a definitive way the dynamically changing practices of users of the global computer network.[37] The dissemination of the use of blockchain technology would allow the user to trace the flow of information and perhaps facilitate the use of available legal tools and institutions that allow to fight not only against the spread of false information, which requires getting specific information that the user often cannot obtain due to the specificity of the centralised network and the inability to detect the perpetrator. In addition, blockchain technology would allow for safe storage of data with the guarantee that it will not be further processed.[38]

This article may be an inspiration to consider the possibility of introducing resolute regulations that will use the full potential of blockchain technology in the Polish legal system. As W. Szpringer notes, blockchain technology, based on a safe and tamper-resistant architecture, provides a chance to transform the "Internet of in-

[36] A. Palmer, *Twitter CEO Jack Dorsey has an idealistic vision for the future of social media and is funding a small team to chase it*, 2019, www.cnbc.com/2019/12/11/twitter-ceo-jack-dorsey-announces-bluesky-social-media-standards-push.html [access: 20.10.2021].

[37] Cf. T. Kaczmarek, *Polskie prawo karne wobec przestępczości komputerowej*, "Nowa Kodyfikacja Prawa Karnego" 2001, vol. 8, p. 57. In more detail: A. Haręża, *Naturalnoprawne sfery regulacji technologii informacyjnych. Zarys teorii fenomenu dynamiki korelacji danych i informacji w cyberprzestrzeni*, "e-Biuletyn CBKE" 2007, no. 4.

[38] See R. Funta, *Social Networks and Potential Competition Issues*, "Krytyka Prawa" 2020, vol. 12(1).

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formation" into the "Internet of values",[39] which should be used by decision-making bodies. Currently, all efforts to date have been focused on improving the existing solutions, but no new solutions are sought that could turn out to be more effective.

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ABSTRAKT

W dzisiejszych czasach większość społeczeństwa korzysta z Internetu i rozwijających się tam social mediów. Internet jest jednak przestrzenią, w której bezsprzecznie dochodzi do różnego rodzaju naruszeń, którym trudno przeciwdziałać przy wykorzystaniu instytucji i narzędzi prawnych, często nieprzystających do dynamicznie rozwijającego się środowiska. Pandemia COVID-19, która zmusiła do przeorganizowania życia ludzi na wszystkich polach i przeniesienia go nierzadko do sieci, nasiliła negatywne zjawiska, w tym rozpowszechnianie nieprawdziwych i szkodliwych społecznie informacji. Niniejszy artykuł zawiera oryginalne rozważania na temat skuteczności polskiego ustawodawstwa na tle dotychczasowej działalności organów Unii Europejskiej ukierunkowanej na zwiększenie bezpieczeństwa użytkowników Internetu na przykładzie przeciwdziałania rozpowszechniania nieprawdziwych informacji. Zdaniem autorki zarówno organy krajowe, jak i organy unijne nie wydają się być zainteresowane poszukiwaniem alternatyw opierających się na rozwiązaniach technologicznych, które mogłyby sprzyjać zapobieganiu dalszym naruszeniom w Internecie, a raczej są skoncentrowane na udoskonaleniu konwencjonalnych modeli ochronnych, których skuteczność wydaje się dyskusyjna. Celem artykułu jest rozpoczęcie interdyscyplinarnego dyskursu na temat szansy zmniejszenia ilości negatywnych zjawisk w środowisku social mediów przy użyciu technologii blockchain, nie wyłączając podjęcia dyskusji na temat możliwości opracowania odpowiednich przepisów w tym zakresie.

Słowa kluczowe: blokchain; ograniczenia prawa stanowionego; social media; Internet; organy Unii Europejskiej; rozwiązania technologiczne