



Disruptive platforms. Markets, ecosystems and monopolists – monograph review

The reviewed monograph entitled *Disruptive platforms. Markets, ecosystems and monopolists* (edited by Tymoteusz Doligalski, Michał Goliński, and Krzysztof Kozłowski, Routledge 2021) deals with an extremely important and topical subject relating to disruptive platforms. In the era of the fourth industrial revolution, with the increasing importance of mobile technologies, the Internet of Things, huge data streams (Big Data) and the encroaching advancing automation and robotization, the topic of disruptive platforms deserves special attention.

The deliberations concerning disruptive platforms take into account a wide spectrum of research specialisations shared by the authors, researchers from the Warsaw School of Economics and co-authors of individual chapters in the monograph. They cover a vast

spectrum of research: from the areas of e-business and new business models, business informatics, logistics and supply chains, and international business to application of quantitative statistical methods in economic sciences. In addition, the authors include data scientists, researchers dealing with internet marketing, and social aspects of management science such as time hybridisation, as well as researchers in political science and international economic and political relations. The implementation of so many perspectives on the topic of contemporary technological transformation, which emanates from disruptive platforms, indicates on one hand the complexity of the socio-economic phenomenon we are currently dealing with, and on the other hand it does not allow us to confine our reflections in this field to a single discipline or research specialisation.

Interest in the subject of disruptive technologies, which completely change the functioning of the modern economy and everyday life of the global community, has particularly soared in recent years, with the spread of mobile technologies in which a great deal of attention is paid to user comfort and functionality, defined as User Experience (UX). Thus, the book *Disruptive platforms. Markets, ecosystems and monopolists* fits perfectly into the trend of in-depth scientific and empirically-grounded reflection on the direction of contemporary civilisational changes. The book should serve as a practical guide for understanding contemporary processes of digital transformation – helping to consolidate the knowledge of managers, business practitioners, and students of economics, and more broadly – the field of social sciences, but also the field of science and life sciences (computer science) and the field of engineering sciences (technical IT and telecommunications). Moreover, reading this very up-to-date book should also be useful to a wide range of readers interested in contemporary technological changes, which makes it even more informative and useful.

Disruptive platforms. Markets, ecosystems and monopolists

The monograph consists of ten chapters, in which individual authors present the problems related to disruptive platforms, taking into account their own research specialisation and in-depth scientific interests. The monograph also contains an introduction, which presents the main thoughts, considerations and brief information on the content of individual chapters. The discussion on disruptive platforms opens with a chapter written by Prof. Tymoteusz Doligalski entitled *Platform canvas: Does the platform business model imply disruption and monopolisation?* It includes very interesting reflections on contemporary business models (business model canvas) in relation to disruptive platforms. Particularly interesting, apart from the characterisation of the specific components of the model, including Groups of customers, Value for platform customers, Objects and other resources, Match-making mechanism, Reputation system, Institutions and interventions, Value capture, Platforms diversity and a comparison of Platforms versus other business models for online companies, are reflections on the disruptive character of platforms, contrasted with monopolistic and oligopolistic tendencies – present in their business strategies. The reflections on the potential marginalisation of other market players by platforms belonging to the GAFAs group (Google, Amazon, Facebook, Apple) are continued by Professor Michał Goliński in the second chapter, entitled *GAFAs: Internal innovators and disruptive monopolists*. However, the author consciously limits his analysis to the four mentioned entities, noting that Chinese counterparts of GAFAs, i.e. BATH (Baidu, Alibaba, Tencent, Huawei) may also require a similar study. Platforms co-creating the GAFAs group, also referred to in the text as Giant Platform Operators (GPO), are presented in the historical context of the technological revolution initiated by the popularisation of the commercial Internet following 1995. Professor Goliński points to the process of reorientation of the original activities of the Bigtech companies over the years. Google, originally offering a browser service, is now increasingly successful in the field of Artificial Intelligence (AI) and quantum computing. Apple, which may have originally been associated with the Macintosh computer brand, is still committed to innovation and delivering efficient devices to its users, which are now primarily mobile, easy to use and increasingly smart. Facebook, which should be associated with the first global social network, is now increasingly adopting immersive technologies. Amazon, which was originally an online bookstore, is now focusing on optimising its operations by automating its warehouses and even testing a delivery service using autonomous drones. The GAFAs group's financial revenue of almost USD 930 billion for 2021 is impressive, as is its R&D spending. With a combined total of more than USD 107.5 billion, these companies are at the very top of any ranking, when compared to nation states. The USA, China, Japan and Germany are the only countries which have higher R&D figures than GAFAs put together. The author of this part of the

study formulates a very interesting question about the gradual monopolisation of individual industries which are the domain of GAFAs, as well as its dominance in terms of attracting money from advertisers. The virtually free aggregation of user data – providing highly personalised information about platform users through their activities within the services offered by GAFAs – is becoming an important business incentive. Equally important are insights into the potential disruptive power of GAFAs, as well as mechanisms related to deterring potential used to fend off competitors through the use of advanced predictive tools and, in effect, maintaining a comfortable *status quo* for GAFAs and blocking potential innovations forced by market and technological competition. However, Michał Goliński also sees the disruptive potential of decentralised Blockchain technology, which may completely disrupt the digital market in the coming years.

The following chapters address the very topical issue of contemporary concepts related to supply chain management and the internationalisation of business through disruptive platforms. In the third chapter, entitled *Platforms in supply chain management. Disruption or evolution?* Professor Katarzyna Nowicka describes the most important changes concerning the perception of Supply Chain Management (SCM). The author pointed out a significant shift occurring as a result of platformisation, including the areas of sourcing, manufacturing and delivery. In the case of disruptive platforms, an increasingly important area relating to the use of IT technology in supply chain management, referred to as a Digital Supply Chain, was also identified, which is connection of individual parts of the system and responding in real time to changes relating to the parameters of demand and supply. Professor Nowicka also points to the growing importance of the concept of Extended Digital Supply Chains (EDSC), including the use of renewable energy sources in transport and multimodal sustainable transport platforms, as an answer to the challenges related to the increasingly important need to care for the environment. In the next, fourth chapter of the monograph, entitled *Digital platforms' internationalisation and its disruptive impact on international business*, Professor Marzanna Katarzyna Witek-Hajduk focused on the issue of internationalisation of disruptive platforms' activities, in particular the specificity of activities going beyond the domestic market. The article analyses the profiles of selected platforms (Amazon, Alibaba, AliExpress, Allegro, Booking.com, TripAdvisor, Not Just a Label, Uber) and their disruptive impact on international business, taking into account factors such as new ways of internationalising operations, new ways of acquiring knowledge and building relations, new ways of creating and delivering value to foreign customers, and significant changes in the competitive environment taking place in many industries.

In the fifth chapter, entitled *Market monopolisation through e-commerce? Analysis of Price behaviours at the Allegro.pl marketplace platform*, Dr. Adam Korczyk

characterises the tendency concerning the mechanism of price-setting within the digital marketplace. The author presented research on the functioning of the mechanism of price level adjustment, both in the case of an increase and decrease tendency of selected product categories on the most popular Polish auction portal, Allegro. Conclusions from the research may prove to be very important in a possible comparative analysis taking into account global sales platforms such as Amazon or Ebay. The issue of analytical platforms is presented in the sixth chapter, entitled *Analytical platforms in information technologies. A methodological approach*, by Professor Ryszard Szupiluk. The author pointed out the interdependencies between programming platforms and analytics platforms. Moreover, this part of the monograph characterises the latest phenomena and trends including Machine Learning and Deep Learning, Data Mining, Big Data, Artificial Intelligence and Data Science. The chapter concludes with the characteristics of disruptive analytics platforms, which may require less and less advanced programming knowledge from their users, focusing primarily on functionality and user experience (UX).

In the seventh chapter, entitled *Consumer shopping behaviours on social media platforms. Trends, challenges, business applications*, Professor Bogdan Mróz focuses on the analysis of a new demographic target group of buyers of goods and services, referred to as *digital natives*. Adapting activities to the needs and expectations of this specific group of recipients – who focus on critical reception of content and active co-creation (prosumption) instead of passive consumption of goods and services – may be a huge challenge for technological platforms. This group, however, is not homogeneous – which was perfectly illustrated by the author of this chapter in the characteristics of different categories of social media users: from the most active to the relatively passive users. Bogdan Mróz also points to new phenomena relating to shoppertainment (simultaneous use of social media and making purchases, mainly using mobile devices). Moreover, the author of this chapter points out the latest trends related to the application of Web 5.0 (Emotional Web) and the Internet of Behaviours (IoB). The topics related to focusing and maintaining attention of disruptive platform users were characterised in the next chapter, authored by Professor Bohdan Jung. It is entitled *Attention as a scarce resource in the platform economy*. The chapter depicts how the phenomenon of attention deficit and time hybridisation (combining work-related and leisure activities at the same time) influences adjustments in the strategies of reaching the audience through disruptive platforms. To be of interest, a message has to be very short – since, according to research commissioned by Microsoft, the average viewer maintains full attention on a new source of information for only eight seconds. Professor Jung rightly points out that regardless of time optimisation strategies, such as time hacking, life hacks, etc., we are all still limited by the fact that

the possibility of extending the 24-hour day has not been created. Time, unlike material resources, is a non-reproducible resource.

The penultimate, ninth chapter by Dr Jan Misiuna, entitled *Web platforms as a tool for financing 2020 election campaigns in the USA*, deals with the topic of fundraising platforms applied by the two biggest political competitors on the American political market: WinRed (GOP) and ActBlue (Democratic Party). The fundraising platforms are characterised both in terms of the previous decentralisation of similar campaign fundraising entities (an important reason for the creation of WinRed before the 2020 election series), effectiveness in raising funds even in the form of small contributions, and functionality and user experience (UX). ActBlue and WinRed functionality solutions are presented against the background of previous achievements during the 2016 election campaign by Bernie Sanders' staff. The article presents completely new opportunities related to the use of platforms, such as the "money bomb" strategy – raising funds from donors outside the particular state where the election race is taking place. Platforms can become not only a tool for fundraising, but above all for formulating optimal electoral strategies based on the collected data (it is worth mentioning the ethical dimension of irregularities related to the activities of Cambridge Analytica consultants during the 2016 US presidential elections). In the area of fundraising platforms, this is a specific 'arms race' in the form of breaking new records related to the amount of raised election funds.

In the final chapter of the monograph, entitled *Digital Platforms and Chinese state institutional capacity. Why digital platforms are essential for the Chinese way*, Professor Krzysztof Kozłowski looks at the modernisation processes taking place in China. Indeed, over the last few decades, we have witnessed huge economic and technological progress occurring in the Middle Kingdom, as well as a global power shift. At the same time, the modernisation processes in China are taking place in pursuit of the policy objectives of the state authorities, and not as an effect of free market forces. Appearances, as Krzysztof Kozłowski points out, may be deceptive. China has institutions typical of countries with a developed market economy, including a stock exchange, an independent central bank and commercial banks. China is also a member of the World Trade Organisation and has significant amounts of foreign direct investment (FDI). However, the processes of economic and technological transformation are not taking place as a result of free market forces. The sources of this phenomenon should be sought not so much in the reforms initiated by Deng Xiaoping in 1978-79, which resulted in economic liberalisation and the opening of the Chinese market to cooperation with developed countries, but rather in the earlier decades characteristic of Mao Zedong's reforms. The years of totalitarian terror (1949-1979) and the socially costly, bloody experiment in the form of the Great Leap Forward strategy, strengthened the

Disruptive platforms. Markets, ecosystems and monopolists

state apparatus. Institutional capacity of the state is the main factor responsible for China's smooth implementation of market reforms since 1979. China's institutional capacity is measured by one of the lowest crime, shadow economy, and corruption rates in the world, dynamic progress in education, and a rapidly increasing literacy rate. At the same time, China is distrustful when it comes to implementing Western technology platforms. The Chinese use their own platforms such as WeChat, QQ, and Qzone – which have the same functionalities as their Western counterparts.

We should appreciate the great multithreading in the description of the complex narrative related to the rapid technological progress taking place before our eyes, the effect of which is the increasing platformisation of the economy. However, the process of technological change characteristic of the Fourth Industrial Revolution, as measured, for instance, by disruptive platforms characterised by huge data flows, is not matched by the cognitive abilities of *homo sapiens*. The result of this disproportion is a widening information gap and a constant deficit of attention. It all comes down to the realisation that what may be crucial is not so much to optimise strategies for increasing material resources, but to find ways of saving the most precious, non-reproducible, individual resource – the time given to each of us. One can go a step further – technological progress, which is aimed for instance at making everyday life easier, may in the years to come – in the words of Yuval Noah Harari – be increasingly confined not so much to the domain of IT, but to biotechnology. In the future, technological development may be related not only to improving the quality of life and optimising time, but above all to the possibility of increasing this resource – through biotechnological improvement of human parameters and extension of human life. This specific quest for the Holy Grail will not fall to everyone. The engine of eternal progress, but at the same time one of the greatest flaws of our species, is eternal insatiability, which can also be described as greed. The beneficiaries of the changes associated with the coming biotechnological revolution will be relatively small groups, which can be

compared to the current beneficiaries of platformisation, symbolised by GAFA.

In considering disruptive platforms that maximise economic performance, an important thread may be overlooked regarding, for example, the challenges associated with an environmentally sustainable development strategy. Current economic activities can be regarded as a struggle between the approach related to the maximisation of benefits achieved today and the problem of irreversible degradation of the ecosphere in the future. Concern for the ecosphere is present in the European Green Deal strategy, including decarbonisation in EU countries and reorientation towards renewable energy sources (RES). Greed has another face – if only in the form of unbridled territorial expansion. The effects of this destructive action can be seen in reports from across our eastern border, namely Russia's military aggression against Ukraine. Perhaps it is in the nature of our eternally insatiable species to seek destruction.

Disruptive platforms, focused on maximising usability (UX) and achieving their own economic results, may not provide a ready answer when facing the issues of future global challenges, especially as platform users are objectified – treated as a means of profit optimisation. However, the driving force for change in the way global challenges, including sustainability issues, are viewed may not be the disruptive platforms, but rather the public authorities and the active user community – described in the monograph as the *net generation*.

Contemporary technological transformations cannot be encapsulated in one simple narrative; phenomena related to digital transformation thus elude simplified categorisation. In this respect, the joint effort of the authors – academics from the Warsaw School of Economics, who co-wrote this very up-to-date and cognitively valuable monograph – should be particularly appreciated.

Bibliographic data: Tymoteusz Doligalski, Michał Goliński, and Krzysztof Kozłowski (Eds.), *Disruptive platforms. Markets, ecosystems and monopolists*. Routledge, 2021.



Marcin Kowalczyk is a researcher in the field of digital transformation. Author of the book entitled *Digital State (Cyfrowe Państwo. Uwarunkowania i perspektywy)*, Wydawnictwo Naukowe PWN, Warsaw, 2019 – named the best scientific book of the year 2020 by the Polish Information Technology Society (PTI). He is employed at the Faculty of Law and Administration of UWM in Olsztyn. A graduate of the Warsaw School of Economics and the University of Warsaw (American Studies Center; Faculty of Journalism and Political Science, UW – major: journalism and social communication, specialisation: media marketing and PR; additional studies in national security at the Institute of International Relations of the University of Warsaw, in cooperation with the Office of National Security and the Ministry of National Defence). He holds a doctorate in political science from the Faculty of Journalism and Political Science of the University of Warsaw.