

ISBN 978-1-7281-6441-0

**Proceedings
of the 2020 IEEE Communication Strategies in Digital Society
Seminar
(2020 ComSDS)**

April 08, 2020

**St. Petersburg
Russia
2020**

The transformation of the advertising industry in the age of “platform capitalism”

Alexandr A. Balayan
Department of Political Science
HSE Campus in St. Petersburg
St. Petersburg, Russia
alexandr1138@mail.ru

Leonid V. Tomin
Department of Political Governance
Saint Petersburg State University
St. Petersburg, Russia
leopolit@yandex.ru

Abstract—In the period after the global financial crisis of 2008, a new economic model have emerged - “platform capitalism”. Platform companies attracted huge amount of money, allowing for a while to solve the problem of investment and supporting the financial market. The basis of this economic model is network effects produced by the integrated digital infrastructure, which contribute to monopolization and the constant expansion of platform companies in new areas. The principle of functioning of this infrastructure is the constant collection and further monetization of data extracted from the interactions of individuals with each other or with one of the elements of a digital economy or governance structures. This paper is devoted to the analysis of the logic of the emergence of “platform capitalism” as an effect of structural contradictions of neoliberalism (financialization, permanent market instability). The paper focuses on the transformation of the advertising market under the influence of platform companies, using the US example, to show the mechanism of digital disruption in print media business model. The development of digital infrastructure has allowed platform companies to collect and monetize data, deliver personalized ads to users throughout the internet. A structural shift has occurred - traditional media have ceased to be the main channels for transmitting advertising messages to certain social groups, advertising platforms are able to find them and deliver them ads on their own. In the framework of “platform capitalism”, many print media in order to survive try to transform themselves in accordance with the logic of the economic platform model (developing their website, data collection and monetization, integration into the logic of social networks).

Keywords—digitalization, neoliberalism, platform capitalism, big data, financialization, disruptive innovation, advertising industry

I. INTRODUCTION

The financial crisis of 2008 was followed by organizational and technological transformation of the neoliberal model of economy and governance. It is platform companies that have become key actors of economy; these rely on digital infrastructure intended for collecting data and building channels for interaction between users or physical objects and the Internet of things. So how can we describe such a business model? Political philosopher N. Srnicek called it “platform capitalism” [1], J.B. Foster, R. McChesney [2], and S. Zuboff [3] – “surveillance capitalism”.

The emergence of platform companies has resulted in

This work was supported with a grant from the Russian Science Foundation (grant 19-18-00210 “Political ontology of digitalization: Study of institutional bases for digital forms of governability”).

drastic transformation of various economic sectors such as electronic commerce, taxi service, lodging and has made meaningful effect on the advertising market too. First of all, due to a large-scale reallocation of funds on the advertising market, this has considerably undermined the income of print media. Traditional mass media have ceased to be a key tool of advertising to a number of social groups. Google and Facebook, based on processing the collected data, can deliver interest-based advertising content by the parameters preferred by an advertiser [4].

II. RESEARCH

The question to be answered is: what are the expected long-term consequences of impact of platform companies on the advertising market? To do this, we should analyze their background and business logic. The phenomenon of platform economy arouses big discussion of its possible social and economic and political effects [5]. So, for example, optimists argue that these new type companies enable solving many of the current problems, as they are innovative, efficient (minimum transaction costs, optimal allocation of resources) and collaborative (creating infrastructure for the sharing economy and new working places). Pessimists, on the contrary, believe that platform economy is a radical version of neoliberalism that is likely to aggravate its main perverse effects (erosion of democracy, increasing poverty, precarization of employment, housing crisis) [6].

As a theoretical framework for the analysis of organizational and technological transformation of a neoliberal economic model, the emergence of platform economy and changes in the media we use concepts of a number of marxist and post-marxist authors such as J.B. Foster, R. McChesney, N. Srnicek. For them, “platform capitalism” is part of the common logic of capitalist economy transformation driven by its structural contradictions and crises. In the 1970s, the capitalistic core countries was suffering a decline in the profitability of industry, and neoliberal reforms of the 1980s launched financialization which made it possible to support the markets and postpone the crisis until the Black Monday of October 19, 1987. It was then that the economic model based on industrial production shifted to the dominance of the financial sector. However, the transformation of this kind failed to stabilize the economy. Instead, in the pursuit of profit, the speculative financial capital turned to creating bubbles in various sectors, thus making the crisis state permanent.

Therefore, the emergence of “platform capitalism” is not merely a result of innovative technologies, and its history is closely related to the development and transformation of neoliberalism. This point calls to supplement the Marxist analysis, as its serious fault is viewing neoliberalism predominantly as a specific economic policy or a free-market ideology. To conduct a systematic analysis of social, economic and political effects of neoliberalism, we should consider it as a new political rationality [7].

Unlike classical liberalism, neoliberalism does not limit state intervention into the economy or private life of an individual; it generalizes market principles, using them as a model for governance and regulation of all the spheres of the society. Another crucial point is understanding the market as different from a natural self-regulating system, the autonomy of which a state has to recognize. The neoliberal system of governance is based on specific state intervention intended to market the system of political and administrative management, the sphere of public services and relations within the society.

The neoliberal model of globalization, enacted following a change in the balance of powers between labor and capital, transformed the functioning logic and the priorities of the state. Describing these changes, P. Dardot and K. Laval note, that “...the state now has an important responsibility for logistical and infrastructural support for oligopolies, as for attracting these big oligopolies to the national territory it administers. This affects a great variety of areas: research, universities, transport, tax incentives, cultural environment and urbanization, guarantee of outlets (public markets open to small and medium-sized enterprises in US). <...> A competitive state is not the state as arbitrator between interests, but the state as partner of oligopolistic interests in a global economic war” [7].

This political rationality underpinned a number of important decisions that have shaped the structure of modern digital economy. Of these, the most important are, first, privatization of the National Science Foundation Network (NSFNET) and transfer of the Internet infrastructure to private providers (Sprint, Ameritech, MFS Datanet, Pacific Bell). Second, the “Telecommunications Act” adopted in 1996 by the Clinton administration, which ended the ban on cross-ownership of mass media. This resulted in the establishment of a legal framework for concentration of most mass media in the hands of several media corporations (Table 1) (Table 2). Third, the “Financial Modernization Act” was passed in 1999. It lifted the ban on combining the investment and commercial bank functions by the same institution.

TABLE I. CONCENTRATION OF MEDIA OWNERSHIP IN THE U.S.

Media corporations	Key properties	Market capitalization (in billion U.S. dollars)	Revenue (in billion U.S. dollars)
COMCAST	NBC, Telemundo, MSNBC, Bravo, Universal Pictures, Comcast cable	155.2	75.7
The Walt Disney Company	ABC, ESPN, Disney channels, Walt Disney studios, Pixar, Marvel studios, Lucasfilm,	147.9	52.5

Media corporations	Key properties	Market capitalization (in billion U.S. dollars)	Revenue (in billion U.S. dollars)
TimeWarner	HBO, CNN, Cartoon network, TNT, TBS, Warner bros. Pictures. DC Entertainment	64.6	29.2
21st Century Fox	Fox, Fox News, Sky, National Geographic, Twentieth Century Fox	47.1	28.6
ViacomCBS	CBS, Showtime, Simon & Schuster, Paramount Pictures, BET, Comedy Central, MTV, Nickelodeon	39.8	27.5

Wall Street journal [8]

TABLE II. CONCENTRATION OF NEWSPAPERS OWNERSHIP IN THE U.S.

Company	Total Papers	Daily Papers	Total Circ. (000s)	Daily Circ. (000s)
New Media/GateHouse	451	153	4,455	2,805
Gannett	216	107	4,301	3,249
Digital First Media	158	51	3,241	2,106
Adams Publishing Group	144	34	1,185	394
CNHI	114	73	1,006	707
Lee Enterprises	100	51	1,252	1,010

UNC [9]

As a consequence, there was a large-scale concentration of capital and further financialization of the economy. The generated excess of capital needed new areas of investment, and the rising internet economy became one of key choices. The outcome of the first stage of large-scale investments was blowing and collapse of the dot-com bubble. Again, the spread of high-speed Internet further strengthened financialization of the economy, making transactions of purchase and sale of various financial instruments as swift as lightning. After the global financial crisis of 2008, platform companies have attracted huge investments, allowing to temporarily solve the problem of investment of capital and supporting the financial market.

In the 2000s, many authors continued to speak of the Internet economy in the language of cyber-utopianism of the 1990s, describing it as open, decentralized, democratic and collaborative. Such perverse effects as monopolization, concentration and centralization of capital, increasing economic inequality and violation of privacy were disregarded or considered occasional difficulties.

J.B. Foster, R. McChesney notes that “...by the end of the decade the Internet had come to play a central role in capital accumulation, and the firms that ruled the Internet were almost all “monopolies”, by the way economists use the term. This did not mean that these firms sold 100 percent of an industry’s output, but rather that they sold a sufficient amount to control the price of the product and how much competition they would have. By 2014, three of the four largest U.S. corporations in market valuation Apple, Microsoft, and Google were Internet

monopolies. Twelve of the thirty most valuable U.S. corporations were media giants and/or Internet monopolies, including Verizon, Amazon, Disney, Comcast, Intel, Facebook, Qualcomm, and Oracle. These firms used network effects, technical standards, patent law, and good old-fashioned barriers-to-entry to lock in their market power, and they used their monopoly gushers to broaden their digital empires” [2].

A platform company is basically a digital infrastructure intended for collecting data and building channels for interaction between: users, seller and buyers of goods and services, advertisers, physical objects within the Internet of things. We can distinguish the following features of their functioning and advantages over competitors:

1. Platforms mediate interaction between individuals or groups by providing an information and communication space that accords them an “epistemological privilege” and ensures an additional tool for monetizing their own assets.
2. Platforms are a tool for producing, extracting, and monetizing data collected from the above interactions.
3. The performance of platforms ultimately depends on the “network effect”, as its value increases together with the number of users.
4. Platforms use cross-subsidization to attract more users; they offer part of their products and services for free.
5. Platforms are not separate players on the market; they tend to become the infrastructure of interaction and to take a monopolistic position due to network effect.

N. Srnicek distinguishes several basic types of platform companies: advertising (Google, Facebook), cloud (Amazon Web Services, Salesforce), industrial (Predix, MindSphere), product (Spotify, Pandora), and lean (Uber, Airbnb, TaskRabbit) companies [1].

One of the main sources of income for a majority of platform-type companies is data monetization. To collect data, they mainly use products and services provided to users for free (social networks, search engines, various apps). Once collected and processed, the data is used to promote direct advertising on platforms (Google, Facebook) or is sold to other companies. In recent years, the data collection infrastructure has become multilevel. At the lower level, there are products that can extract data from the individuals’ daily lives (smart phones, smart watches, fitness bracelets, etc.). At the middle level, there is a model of “smart home” or integrated ecosystem of the Internet of things functioning (“smart speakers” as a hub for connected smart devices). The upper level is embedded in some parts of the existing systems of “smart cities” (video surveillance systems, public Wi-Fi, sensing systems) [10].

Cities are de facto becoming mega-machines for data collection where platform companies with their digital infrastructure are built in as an intermediary in social interactions, accumulating and monetizing the data extracted from these interactions. The “smart city” model promoted by them means a new market for selling their products and services, contractual relations with state and city authorities, as well as a new source of big data. Such examples show how digitalization embedded in the logic of neoliberalism triggers

further privatization and marketization of public space and infrastructure [11].

Platform companies hold dominant position in the market because they rely on the digital data collection infrastructure allowing to personalize interaction of users with the web space. “platform capitalism” where every action of a user is interpreted as a signal and used for profit extraction (selling a product or a service, selling user data to other companies for advertising) makes it impossible to surf the Internet anonymously, which in the 90s was a dream of many cyberspace pioneers [12].

Personalization of the internet undermines the print media’s traditional model of income generation through advertising (Table 3). The digital infrastructure and user tracking system strips mass media of the role of an advertising channel. Advertisers no longer need to buy space to promote their product or service attempting to draw attention of certain groups depending on the audience of a particular media. Now they can deliver advertising content anywhere (social network feed, contextual advertising on websites, e-mail). Indeed, the advertising revenue of the Google company only exceeds all similar incomes of the US print media market combined.

TABLE III. U.S. NEWSPAPER ADVERTISING REVENUE, 2000 - 2018 (IN BILLION U.S. DOLLARS)

Year	2013	2014	2015	2016	2017	2018
Revenue	16.08	15.67	14.73	13.63	13.62	12.33

Statista [13]

A defining moment in transforming the logic of traditional media functioning was 2010 – the launch of the Facebook Everywhere project personalizing millions of sites. From then on, the history of interaction between users and Facebook was projected onto a significant segment of the Internet, including the sites of the Washington Post and the New York Times, the largest American newspapers. Personalization of news sites and the Internet versions of the leading newspapers was tantamount to their actual takeover by Facebook. Data on interaction of users with personalized print media sites was collected and processed by Facebook. Submission of top print media to the logic of “platform capitalism” took place not in the Internet space only: in 2013, J. Bezos, president of Amazon acquired the Washington Post for \$250 mln [14], M. Benioff, founder, chairman and CEO of Salesforce bought Time magazine for \$190mln [15].

The print media have realized that resistance to the platform model is almost vain and tried to integrate into the new reality. Reallocation of revenues of the advertising market and the fall in print editions caused by the appearance of a huge amount of free news content on the internet has urged the leading media to transform their online editions. They began to rebuild themselves according to the logic of platform economy; cookie files collect data about user's interaction with the site for further personalization. Moreover, following the example of platforms, print media sites prompt a user to register on it, providing only a limited amount of content without deanonymization. Thus, print media sites reproduce the logic of platform economy in small, becoming a tool for collecting and processing user data.

III. CONCLUSION

Summarizing the above, we can conclude that the concepts of “platform capitalism” and “surveillance capitalism” developed by a number of marxist thinkers can become a sound theoretical framework for analyzing transformation of the advertising market. It enables to trace the logic of shaping a new business model in the context of transformation of the capitalist economy influenced by its structural contradictions and crises. The emergence of “platform capitalism” is not merely a result of innovative technologies, and its history is closely related to the development and transformation of neoliberalism.

Platform companies hold dominant position in the market because they rely on the digital infrastructure allowing them to personalize interaction of users with the web space. In “platform capitalism” every action of a user is interpreted as a signal and used for profit extraction (selling a product or a service, selling user data to other companies for advertising). The development of digital infrastructure has allowed platform companies to collect and monetize data, deliver personalized ads to users throughout the internet. A structural shift has occurred - traditional media have ceased to be the main channels for transmitting advertising messages to certain social groups, advertising platforms are able to find them and deliver them ads on their own. In the framework of “platform capitalism”, many print media in order to survive try to transform themselves in accordance with the logic of the economic platform model (developing their website, data collection and monetization, integration into the logic of social networks - Facebook Everywhere project).

REFERENCES

- [1] N. Srnicek, Platform capitalism. Polity, 2016.
- [2] J.B. Foster, R. McChesney, Surveillance capitalism. Monthly Review, URL: <https://monthlyreview.org/2014/07/01/surveillance-capitalism/> (Accessed 10.01.2020).
- [3] S. Zuboff, The age of surveillance capitalism: the fight for a human future at the new frontier of power. New York: PublicAffairs, 2019.
- [4] E. Pariser, The filter bubble: what is internet hiding from you. Penguin Press, 2011. p. 199.
- [5] A. Moazed, N.L. Johnson, Modern monopolies: what it takes to dominate the 21st century economy. St. Martin's Publishing Group, 2016.
- [6] S. Hill, Raw deal: How the “uber economy” and runaway capitalism are screwing american workers. New York: St. Martin's Griffin, 2017.
- [7] P. Dardot, C. Laval, The new way of the world. On neoliberal society. Verso. 2017, p. 3.
- [8] A. Sharma, D. Cimilluca, M. Peers, Media squeeze fuels Fox bid for Time Warner. Wall Street Journal, URL: <https://www.wsj.com/articles/21st-century-fox-offered-to-buy-time-warner-1405511112> (Accessed 10.01.2020).
- [9] P. M. Abernathy, The Expanding News Desert. UNC Center for Innovation and Sustainability in Local Media, URL: https://www.cislm.org/wp-content/uploads/2018/10/The-Expanding-News-Desert-10_14-Web.pdf (Accessed 09.01.2020).
- [10] A. Greenfield, Radical Technologies: The Design of Everyday Life. Verso, 2018.
- [11] O. Soderström, T. Paasche, F. Klausner, Smart cities as corporate storytelling. City: analysis of urban trends, culture, theory, policy, action. 2014. Vol. 18, № 3. p. 307-320.
- [12] Y. Levine. Surveillance valley: the secret military history of the internet. Icon Books Ltd, 2019.
- [13] Advertising space revenue of U.S. newspapers from 2013 to 2018. Statista, URL: <https://www.statista.com/statistics/196470/classified-advertising-revenue-of-us-newspapers-since-2000/> (Accessed 09.01.2020).
- [14] P. Farhi, Washington Post closes sale to Amazon founder Jeff Bezos. Washington Post, URL: https://www.washingtonpost.com/business/economy/washington-post-closes-sale-to-amazon-founder-jeff-bezos/2013/10/01/fca3b16a-2acf-11e3-97a3-ff2758228523_story.html (Accessed 10.01.2020).
- [15] A. Chozick, D. Gelles, Time Magazine Is Bought by Marc Benioff, Salesforce Billionaire. The New York Times, URL: <https://www.nytimes.com/2018/09/16/business/dealbook/time-magazine-salesforce-marc-benioff.html> (Accessed 09.01.2020).