INTERNET OLIGOPOLY

The Corporate Takeover of Our Digital World

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INTERNET OLIGOPOLY

The Corporate Takeover of Our Digital World

BY

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INVESTOR IN PEOPLE

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ABOUT THE AUTHOR

Nikos Smyrnaios is an Associate Professor at the University of Toulouse, France, where he teaches theory, history, sociology and economics of the media and the Internet. Born in Athens, Greece, in 1976, he obtained a PhD in Information and Communication Sciences from the University of Grenoble, France. He has published numerous articles in peer-reviewed journals and book chapters in English, French and Greek and has presented at international conferences on the political economy of communication, digital journalism and the political use of social media.

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FOREWORD

In *The Internet Oligopoly: The Corporate Takeover of Our Digital World*, Nikos Smyrnaios advances what is going to prove to be a seminal critique of the digital political economy. The book takes the reader on a journey tracking the commodification of the Internet from the legacy of ARPA, deregulation and the neoliberal turn, to the unquestioned privatisation of the Internet, the birth of Silicon Valley, start-ups and failed mergers. Smyrnaios is a real virtuoso in setting up his critique, and leaves no stone unturned: the conditions for the emergence of the oligopoly, winner-takes-all economics, regulators avoiding any challenge to the oligopoly, the exploitation of digital labour, intermediaries' strategies, Facebook and Google's advertising dominance, personal data as a political issue and the impossibility of democratic regulation.

Smyrnaios identifies four parameters which strengthened the GAFAM (Google, Apple, Facebook, Amazon and Microsoft) to the point of oligopoly: the emergence of a digital information economy, the technological convergence of previously separate sectors (IT, telecom, devices, software, online services), and the financialisation and global deregulation of the economy. GAFAM developed global market platforms, forcing traditional actors in the cultural industries to adapt and serve their owners exclusively, thus making the development of alternatives too difficult.

As quite a few of these oligopolistic actors rely on indirect financing, algorithmic strategies were developed: strategies which exploit their customers by collecting and using data on their identity, socio-demographic characteristics and preferences. Resistance to Google, Amazon and the long-established monopoly-targeting against Microsoft has been brought into sharp focus by the Facebook data breach and Cambridge Analytica scandal. Now the GAFAM problem has come to the fore in the European Union with the General Data Protection Regulation (GDPR), legislation in the United States, United Kingdom and elsewhere. Ultimately, these recent developments justified a decade-long academic scholarship cautioning against oligopoly, deregulation, privatization, privacy, surveillance, censorship, digital labour exploitation and broader issues, stemming from the fact that digital technologies are powerful vectors of neoliberal hegemony.

Within this context, Smyrnaios illustrates beautifully both the historical emergence of the Internet oligopoply and the theoretical development of the debates it has generated. Real gems in his account include Carmen Hermosillo's experience of the Whole Earth 'Lectronic Link (WELL, founded 1985), who already in 1994, predicted the future of the Internet: 'I began to see that I had commodified myself […] I created my interior thoughts as a means of production for the corporation that owned the board I was posting to, and that commodity was being sold to other commodity/consumer entities as entertainment. That means that I sold my soul like a tennis shoe and I derived no profit from the sale of my soul'.[1]

The mid-1990s are given intense treatment by Smyrnaios, and he explains forcefully how these years set up the conditions for the oligopoly's emergence: 'This crucial historical moment, in which the state pulled out of managing the Internet, would give birth to the start-up culture as well as financialisation that would lead to the speculative bubble of

the "new economy". Despite the spectacular bursting of this bubble, this new economy would contribute significantly to the concentration of the telecom and the media, thereby laying the groundwork for the advent of the internet oligopoly'.

The critical issue of the privatization of the Internet was never debated in American society, unlike for other comparable cases, such as the debates over bandwidth allocation or the railway network, and no significant political actor opposed its privatisation and deregulation. As Smyrnaios explains:

> *As such, negotiations were dominated by large firms such as telecommunications operators and online service providers. As a result, citizen and user groups which may have opposed it were excluded from the process. This was all the more true because the issue was highly technical, complex, and with future implications that were difficult to predict. In addition, some internet pioneers, including the hacker community, believed cyberspace was a separate universe and thus not subject to the laws of government and the market. And thus it was with a single decision, which seemed to be a mere technical matter, that the fate of the internet changed in April 1995.*

When there is political will to fight the GAFAM, as was the case in Europe, especially from the 2013 Snowden revelations onwards, the complexity of the technical and legal transnational issues as well as the GAFAM lobbying proved an impediment to breaking down the ologopoly's hold on the global market. Indeed, the numbers supporting Smyrnaios' argument are staggering:

> *The GAFAM are in the top twenty companies in the world that spend the most on research and*

> *development for new technologies and products ($ 11.4 billion for Microsoft, $ 9.8 for Google, $ 9.3 for Amazon and $ 6 for Apple in 2015). These four companies, as well as Facebook, also account for 280 mergers and acquisitions between 2011 and 2015 for a budget of several tens of billions of dollars.*

Smyrnaios demonstrates how vertical integration proves a crucial weapon for the Internet oligopoly, as the oligopoly is present in four subsets and markets that are part of the infomediation infrastructure: operating systems, consumer electronics, telecommunications networks, and data centres, whereby: 'A close examination of Google, Apple, Facebook, Amazon and Microsoft reveals that they are all well positioned throughout the chain, either through mergers or acquisitions, stock purchases, or exclusive and privileged partnerships with companies that are upstream or downstream of their core business'.

At the heart of GAFAM, tracking methods result in markets where gigantic quantities of information on the profiles and habits of Internet users are constantly bought and sold, and here Smyrnaios provides a wonderfully detailed account of the workings of the leaders in the tracking market and the fundamental political implications they raise in regards to mass surveillance and freedom of expression, but above all the ability of our societies to produce common goods to benefit everyone without a market goal.

Thus, in this invaluable work, Smyrnaios solidly concludes his argument: 'Among intellectuals interested in digital issues, as well as among practitioners and tech-savvy users, there is a collective realisation that the direction taken by the internet is not the right one: increased commodification, the concentration of resources, and ubiquitous surveillance. The internet, under the powerful sway of the oligopoly, increasingly resembles

what it was supposed to oppose, namely, computing as a technology of domination'.

Considering the importance of this work for several disciplines cross-fertilising each other to push the area of platform economics to projects attuned to equality, solidarity and the end of digital labour exploitation and democratic disruption, it is a vital weapon in my own arsenal, and I foresee it to be thus for both our peers and students.

Athina Karatzogianni, Metz, 24 May 2018

NOTE

1. Hermosillo, Carmen (humdog), "pandora's vox: on community in cyberspace", 1994, available at https://gist.github.com/kolber/2131643#file-pandoras_vox-mdown

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INTRODUCTION

On April 10 and 11 2018, Mark Zuckerberg, the billionaire chief executive of Facebook, found himself in front of more than 100 lawmakers, members of the United States Congress.[1] He struggled to answer numerous tough questions during nearly 10 hours of hearings regarding the role of Facebook in the Cambridge Analytica scandal and about the way the company systematically collects and exploits massive amounts of data on its more than two billion users. This was the first time that one of the most powerful players of the internet industry was directly confronted by democratically elected representatives. His testimony was the result of mounting political pressure on Facebook since the election of Donald Trump and the Brexit referendum in the UK. Public opinion, mainstream media and governments seem to have finally realized the risks of putting the internet in the hands of a few gigantic corporations. Nevertheless, as usual, social critique has been pointing out these matters long before politicians and pundits took them up.

Almost five years before Zuckerberg's testimony, on December 20, 2013, a small group of protesters gathered in the neighbourhood of West Oakland in northern California. They headed for a bus stop on the private line linking Oakland to Google's headquarters in Mountain View, in the heart of Silicon Valley. The protesters blocked the bus for

several minutes holding a "Fuck Google" sign in front of the shocked passengers.[2] The same day in San Francisco, about one hundred protesters blocked another bus carrying Apple employees who filmed what was happening outside with their mobile phones.[3] In fact, these events were the first in a long series of protests that would continue through 2014 organized by a group called Counterforce. These anarchist-inspired activists visited the homes of several top Google executives. In January, they gathered in front of the home of Anthony Levandowski, head of Google's car project. They distributed a leaflet in his neighbourhood denouncing Google's role in establishing "technologies of domination" and particularly its close collaboration with the US military-industrial complex. In April, they protested at the home of Kevin Rose, creator of Digg and partner at the investment firm Google Ventures.[4] In June, Counterforce organized another protest in front of the home of Thomas Fallows, another Google employee accused of being a real estate speculator.

It goes without saying that, for Counterforce, Google had definitely crossed over to "the dark side of the force." But how did a company with such a hip profile, whose historical slogan is "Don't be evil," become the target of such virulent protests? What motivated these activists to attack Google as well as Apple, Facebook and others? In particular, Counterforce criticizes these internet[5] giants for triggering a powerful gentrification process in San Francisco, Oakland, Berkeley, and the surrounding areas. With their mind-boggling salaries, the engineers of these Silicon Valley companies have settled in these cities to enjoy their quality of life and relaxed atmosphere. In doing so, the price of real estate and the cost of living have skyrocketed, while they benefit from exclusive services like private bus lines that provide everything they need to work online during the long commute. According to Counterforce, while the "normal" workforce is struggling to find housing and live in

one of the most expensive regions of the United States, the elite of the internet industry lives in a bubble, benefiting from financial speculation and the establishment of a mass surveillance society with Orwellian overtones.

In fact, the first protests against Google took place a few months after the revelations of Edward Snowden, when he exposed the practices of the NSA and the GCHQ (the electronic intelligence service of the British Government). The documents Snowden sent to journalists Glenn Greenwald and Laura Poitras in June 2013 exposed to the eyes of the world the largest mass listening and surveillance operation in human history[6]. At the heart of this vast spying programme were companies like Microsoft, Yahoo!, Google, Facebook, AOL, Apple and Dropbox, whose servers the NSA and GCHQ could access at any time. Despite their denials of voluntary collaboration with the intelligence services, suspicion remains. At worst, these powerful companies collaborate directly with the intelligence services, betraying their clients' trust. At best, they insufficiently protect the data entrusted to them, and the commercial exploitation of that data is at the heart of their business models. This risk has been confirmed by the revelations about how Cambridge Analytica used the personal information of Facebook users, taken without authorisation, to build a system of electoral propaganda for the Trump and Brexit campaigns[7]. Since 2014 the Counterforce group has apparently dissolved. Nevertheless, the questions it raised with such force are at the heart of this book.

THE INTERNET AS A POLITICAL ISSUE

For the last 10 years or so, we have seen the growing power of digital networking technologies take over our everyday life: ordinary sociability, work, entertainment, and education.

All of our communication – that is to say, almost all of our social life – has been gradually colonized by electronic objects. Devices, networks, and online services have become useful additions, but they have also invaded our personal and professional lives as well as our public expression. This process has taken place within a globalized and deregulated economy that favours the extreme concentration of resources.[8] It is therefore far from the original ideal of the internet, so highly praised in the past, as inherently democratic, participatory, and decentralized. This ideal has been particularly present in the discourse around the emergence of the Web 2.0.[9] However, the reality is different: in recent years, the internet has become a space for fierce competition among social groups, political institutions, and multinational companies over the distribution of power via digital communication channels. Consequently, the present form of the internet owes nothing to its supposedly intrinsic technical characteristics of being participatory and democratic but rather results from the complex relationships between actors whose economic and political interests are both powerful and antagonistic.

In this context, over the last decade a few multinationals, which began as friendly start-ups, have become an oligopoly that governs the information heart of our societies to such an extent that an acronym, GAFAM, has now been attributed to them.[10] This oligopoly's control over vast digital domains has been primarily achieved through their extraordinary market power and financial strength, but also through their intellectual and industrial property rights that complement and reinforce each other, occasionally giving rise to patent wars. Thus, the internet is in the process of being privatized, "fenced in," as part of a larger process of concentration of intellectual and informational resources in what Ugo Pagano calls "intellectual monopoly capitalism."[11] Indeed, contrary

to the neo-liberal discourse that considers "free and unfettered competition" as the ideal-type of capitalism, we now know – at least since Fernand Braudel – that capitalism is concomitant with actors constantly seeking to establish and protect monopolistic positions.[12] According to Pagano, the growing movement of privatization and concentration of intellectual and industrial property since the 1990s is a consequence of these strategies. Yet increased investment in intellectual property products, primarily digital technology, further decreases the share of revenue allocated to labour and instead gives that revenue to capital.[13] This has greatly contributed to the economic imbalances and social inequalities that have had the devastating effects we have all witnessed.

One characteristic of our current historical era is a long and painful economic and social crisis, at least in developed countries. The triumph of neoliberalism has been succeeded by scepticism, even open hostility, towards the new post-Fordist capitalism at work: financialized in the extreme, deregulated, and globalized, this new capitalism relies by its nature on digital networks and those who control them in order to perpetuate itself, with the result of deepening class inequalities, particularly in the most economically advanced countries.[14] From a spatial point of view, this revolution has created new fractures between i) the political, financial and technological centres of the world system and ii) the periphery, which has been relegated to supplying cheap labour and/or brains – as well as fractures between cosmopolitan urban centres and deindustrialised areas within advanced countries themselves. Digital technologies are the nervous system of this new world and, because of this, they contribute to the creation of what Saskia Sassen describes as a new transnational space for the circulation of capital.[15] The control of these new strategic zones is an integral part of global geopolitics, as evidenced by the emergence of "state hackers" who

engage in espionage and data theft.[16] But these same technologies are also indispensable tools for a multitude of social and political movements that challenge the established order.[17] From the Arab Spring to the Occupy movements, from Pegida and the jihadists to the European Indignados, the contemporary internet is a space for commodification, a vehicle of propaganda, and a tool for political liberation, all at the same time.

THE NECESSARY CRITIQUE OF THE DIGITAL POLITICAL ECONOMY

From this point of view, Counterforce's merit was in bringing to light the contradictions in our relationship to digital technologies. This group was at the crossroads of global socio-economic and political issues, of social criticism rooted in a given region, California, as well as of the liberating and disruptive potential of technologies, well understood and efficiently used by Counterforce's tech-savvy members. Counterforce embodied a spectacular form of radical criticism of the contemporary internet, but this criticism had been growing for several years. Its emergence can be dated to 2007 when the Italian collective Ippolita published a book, which has been reprinted several times since.[18] The authors show how Google has succeeded in transforming the original spirit of the internet – inspired by the organizing principles of the scientific community and Californian counter-culture – to serve wealth accumulation. The authors thus noted that Richard Barbrook and Andy Cameron's predictions about the emergence of a 'Californian Ideology', which combines the libertarian spirit of the hippies with the entrepreneurial zeal of yuppies and which serves to renew capitalism, had come to pass in a big way.[19] In the preface to the latest edition of their

book, Ippolita members broadened the scope of their criticism to all oligopolistic actors, noting that Google is not solely responsible for these "technocratic systems on which informatics of domination are based."[20]

As a complement to this radical social criticism, my goal here is to provide a theoretical and analytical framework of the contemporary internet in order to "unveil the mechanisms of domination, make them intelligible but also inadmissible, in other words, to denounce a certain social order in order to liberate ourselves from it."[21] My approach seeks to establish a critique of the political economy of the internet, i.e. to consider it as a 'cultural form', in the sense of Nicholas Garnham, corresponding to a 'social form' guaranteeing its material effectiveness.[22] In other words, from my point of view, the contemporary internet participates in the production of a historically determined *superstructure* corresponding to a stage of advanced capitalism, while at the same time embodying the particular relationships of production that characterize the latter. The internet oligopoly is thus both a powerful tool serving the dominant ideology and a laboratory where the most advanced modes of extracting surplus value are being experimented with. Certainly, the internet cannot be reduced to merely Google, Apple, Facebook, Amazon and Microsoft. But these actors are nevertheless powerful forces that largely control its current functioning and weigh heavily on the internet's evolution. It is therefore imperative to place them at the core of research.[23] The goal here is not to study these sprawling companies as exceptional achievements, but rather to examine them as emblematic figures, as products of a new capitalist order which they themselves helped forge, legitimize and strengthen.

I will, therefore, examine this internet oligopoly as being part of the *cultural industries* in the broad sense, even though these actors are almost entirely uninterested in producing

content. Following Catherine McKercher and Vincent Mosco, I consider that all the workers who are part of the production and distribution chain of knowledge products can be considered cultural workers because, even though they do not produce cultural works, they participate decisively in the elaboration of their conditions of production and dissemination.[24] As such, a YouTube engineer or an iTunes marketing manager are as much involved in the cultural industries as a professional musician whose songs are broadcast via these platforms. This broad conception of cultural industries has three advantages: it avoids a form of *cultural idealism* that would ignore the materiality of culture; it takes into account the connectivity between cultural content and media, especially digital media; and, finally, it enables a broad political criticism of the contemporary cultural form by integrating the global division of labour on which it is based.[25] Indeed, one cannot understand the modes of production and dissemination of contemporary information, culture and entertainment content in its entirety without linking them to the working conditions of the Chinese labourers making the iPhone.

At the same time, while the internet oligopoly is inseparable from traditional cultural industries, it is also distinctly different from them to the extent that it forms a coherent whole. In order to show that coherent whole, instead of focusing on the particularities of its actors – which are numerous since each one of them is the product of a specific history – I will insist on their similarities. Indeed, I think it is essential to show how, beyond the branding they have forged through advertising, the oligopoly actors benefit from the same favourable conditions and operate using common rationales and strategies. Thus, these companies form a system in the sense that, as in any oligopolistic market, they can be competitors and at the same time form alliances that operate at different scales.

The first element common to this oligopoly is that Google, Facebook, Amazon, Apple, Microsoft and others have all benefited from the commodification of the internet, which has been underway since the mid-1990s. In fact, the original internet was not intended for commercial use. On the contrary, the prevailing idea at the time was that of a public good financed by the State. But gradually, a theory linking economic neoliberalism and technological determinism legitimized the market as the only place capable of driving innovation in networked computing. This theoretical elaboration was translated into political terms through the process of deregulating telecommunications and establishing the first commercial networks in the 1980s. But it was not until the early 1990s that commodification of the internet was added to the political agenda and then became a legal and technical process aimed at opening up a new economic field to private initiatives. It was during this period, which ended with the bursting of the dot-com bubble at the beginning of the 2000s, that financial culture gradually conquered the lands of cyberspace, which had previously been foreign to it. It was also at this time that business strategies were put in place to explicitly make the internet an oligopolistic market. The first two chapters trace in some detail the history of this founding period.

The third chapter focuses on the favourable conditions common to the actors of the internet market, enabling them to grow and strengthen to the point of constituting an oligopoly. These conditions can be summarized in four points: the emergence of a digital information economy, the technological convergence of previously separate sectors (IT, telecom, devices, software, online services), and the financialisation and global deregulation of the economy. These conditions, which gradually came together over the 1980s and 1990s, enabled

oligopolistic actors to benefit from the positive externalities that resulted from massive internet use. The internet oligopoly also benefited from an increasing returns economy that offered exceptional profitability and the lowering of transaction costs, which fostered the massive use of outsourcing and subcontracting. In particular, the deregulation and the financialisation of the economy enabled them to integrate and concentrate both vertically and horizontally without interference from regulators (or very little). They were thus able to impose their will in areas such as manufacturing computers and network management and to take control of the main services and software in direct contact with internet users by means of the central function of *infomediation*. The corollary of this trend is that oligopolistic actors constituted global market platforms which forced traditional actors in the cultural industries to adapt. Far from being neutral as they claim, the platforms in question exclusively serve their owners, making the development of alternatives even more difficult. The critical analysis of these strategies is the subject of the fourth chapter.

Finally, the fifth chapter puts into perspective and critically addresses the advertising dominance of the internet and its consequences. Far from constituting a 'natural' fact, this domination is the result of a long-term process that has seen the political and cultural acceptance of advertising grow while obscuring its adverse effects. Today, however, the oligopoly's dependence on indirect financing drives it to create sophisticated methods for collecting and using data on the identity, socio-demographic characteristics, and preferences of its users. This exploitation of their own customers is the core of the internet actors' economic and technological strategies and is thus a socio-political issue of the highest order.

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5. The word "internet" has shifted from its original meaning of a technology (a protocol enabling computer networks to connect). In fact, its shift in meaning has been similar to that of the word 'press.' When in this work I use the common noun internet, I refer to an ensemble of many and varied applications of the Internet protocol for connecting computers accessible to the general public of non-IT specialists, as well as the content, software and services found on the internet. The proper noun Internet will only be used to mean the networking protocol, primarily in its historical context.

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