Back to Media Work in a Data-Driven Market Re-Thinking the Labor of Advertising Practitioners

Yeşim Akmeraner Istanbul University, Faculty of Communication https://orcid.org/0000-0002-6260-2811 yesim.akmeraner@istanbul.edu.tr

Abstract

Industry advocates argue that the focus of advertising production has shifted from the creativity of practitioners to consumer analytics and the potential advantages of big data. Although a little empirical research offers valuable insights about the changing role of advertising practitioners, it lacks a critical perspective to situate it in a broader social context. On the other hand, digital labor and branding literature over-concentrate on user labor and neglect the role of practitioners in advertising production. By deploying the concept of immaterial labor, this article reevaluates the findings of mainstream marketing-advertising literature within the context of post-Fordist labor. This article aims to create a resonance between theories of immaterial labor and advertising literature and to call for further empirical research from a labor perspective. It argues that advertising practitioners put more strategical, relational and communicative powers into work to manage a data-oriented market.

Keywords: Advertising Practitioners, Immaterial Labor, Big Data, Media Work, Autonomist Marxism.

.

Received: 18.2.2021 • Accepted: 16.8.2021

http://ilefdergisi.ankara.edu.tr ilef dergisi • © 2022 • 9(1) • bahar/*spring*: 31-55 Review Article DOI: 10.24955/ilef.1112405

Veri Odaklı Piyasada Medyada Çalışma Reklam Profesyonellerinin Emeğini Yeniden Düşünmek

Yeşim Akmeraner İstanbul Üniversitesi, İletişim Fakültesi https://orcid.org/0000-0002-6260-2811 yesim.akmeraner@istanbul.edu.tr

Öz

Endüstri çevreleri, reklam üretiminin odağının reklam profesyonellerin yaratıcılığından tüketici analitiğine ve büyük verinin potansiyel avantajlarına kaydığını iddia etmektedir. Sınırlı ampirik araştırma, reklam profesyonellerinin değişen rolü hakkında önemli bulgular ortaya koysa da, bu bulguları toplumsal bağlamına oturtmak için gereken eleştirel perspektiften yoksundurlar. Öte yandan, dijital emek ve markalaşma literatürü kullanıcı emeğine fazla odaklanmakta ve reklam üretimindeki formel emeğin rolünü ihmal etmektedir. Bu makale, reklamcılık profesyonellerinin veriye dayalı piyasadaki deneyimlerine ilişkin pazarlama-reklam literatürünün anaakım bulgularını, maddi olmayan emek kavramını kullanarak emeğin post-Fordist dönüşümü bağlamında değerlendirmektedir. Makalenin amacı maddi olmayan emek teorileri ile reklam literatürü arasında bir etkileşim yaratmak ve emek perspektifinden gerçekleştirilecek ampirik araştırmalara çağrı yapmaktır. Reklam profesyonellerinin veri odaklı bir pazarı yönetmek için daha fazla iletişimsel, stratejik ve ilişkisel yetilerini işe koştuğu savunulmaktadır.

Anahtar Kelimeler: Reklam Profesyonelleri, Maddi Olmayan Emek, Büyük Veri, Medyada Çalışma, Otonomist Marksizm.

.

Makale geliş tarihi: 18.02.2021 • Makale kabul tarihi: 16.8.2021

http://ilefdergisi.ankara.edu.tr ilef dergisi • © 2022 • 9(1) • bahar/*spring*: 31-55 Derleme Makalesi DOI: 10.24955/ilef.1112405

"The principal manifestation and prime mover of the new era is the invention and diffusion of information technologies-that is, technologies which transfer, process, store and disseminate digitalised data" (Dyer-Witheford 1999, 23). There is a significant relevance between the change in the way traditional advertising has been functioning and the change in capitalist production in general. Advances in data technologies for collecting and processing usergenerated content are historically connected to the production of immaterial content of commodities, and also the labor producing that content (Gorz 2003, 28-37). Advertising practice has always been related to incorporating subjectivities into capitalist valorization through the production of affects, public opinion and norms. However, today more than ever "social relations and human life in general are increasingly transformed into potential market relations through the medium of data" (Couldry and Mejias 2019, 86). Much of that data storm is related to the advertising industry- collecting and selling more consumer data to target online advertising effectively (Turow 2011). The consequences of data technologies seem to undermine the pivotal role of advertising practitioners, but rather the characteristics of their labor have been changing. A more relational, strategic and communicative type of labor is required to interpret complex -sometimes contradictory- data results or the pat-

terns derived from consumer insights to manage customer relations in such a competitive data-driven market.

Marxist theory, in the broadest sense, serves to explicate social change based on the agency of workers and class struggle. Within the Marxist tradition, Italian autonomism vigorously highlights the constitutive power of labor that precedes social, economic, and specifically technological change. Although Marxist critique has a significant impact on media and communication studies, labor has been neglected in this realm (Hesmondhalgh and Baker 2011, 55; Deuze 2007) apart from the vast literature on digital labor (Fuchs 2014a; Fuchs 2014b; Fuchs and Sevignani 2013; Scholz 2013) and the invaluable studies that problematize precarious working conditions in cultural/ creative industries under neoliberalism (de Peuter 2011; Elefante and Deuze 2012; Gill and Pratt 2008; Hesmondhalgh and Baker 2010; Lovink and Rossiter 2007; Ross 2009). Although this scholarship analyzed the experience of media professionals, it did not deal with the topics such as data, big data and the effects of algorithmic methods in media industries because of the period it flourished- as these data-oriented operations slowly showed up in advanced capitalist countries after the first decade of 2000. Likewise, Bill Livant and Sut Jhally's old but gold contributions (i.e. Jhally 1982; Jhally and Livant 1986; Livant 1982) based on Dallas Smythe's "audience commodity" are significant as they pieced the elements of labor and advertising together. However, they did not deal with advertising professionals but focused on the production of value by audiences- an analysis later matured in prosumer and digital labor conceptualizations.¹

- ••
- Dallas Smythe's blindspot argument is historically significant for communication studies -es-1 pecially for the critical political economy of communication- as he and his followers attracted attention to the labor of audiences and theorized means of communication as means of production. That tradition from audience commodity to digital labor managed to understand value creation and exploitation beyond the limits of formal labor, and it is possible to see the connections between the notion of immaterial labor and the labor of audiences. Because the audience commodity tradition tried hard to prove the productive role of audiences/users in capital accumulation against the predominant role of formal labor in the Marxist tradition, its concentration mainly on audience labor was quite normal. However, user labor has already become a hegemonic form of value creation today and the scholarship based on it has gained a prominent place in social and communication sciences. How formal labor is affected by that considerable productive force of user labor participating in cultural production is an important question of today waiting to attract more scholarly attention. Also in terms of datafication, big data and labor it is possible to see valuable contributions from digital labor literature. However, these issues deserve to be considered regarding formal labor producing cultural commodities too. This article is a modest attempt to contribute to that aim. For a reading of audience commodity debate please see, (Fuchs 2012; Fuchs 2014b; Kıyan 2015; Smythe 1977).

Today questing the role of labor in cultural production under the hegemony of data remains an area of vital importance. Although critical communication studies have already developed satisfying analyses on the politics and economy of data-driven technologies, the research problematizing media work in a data-driven industry is limited to journalism studies (Anderson 2011; Carlson 2015; Örnebring 2010; Parasie and Dagiral 2012; Van Dalen 2012). As labor debate has shifted to user labor mainly on social media, advertising has been argued around the exploitation of digital labor as a result of selling user data to advertisers or targeting advertisements within the context of economic surveillance (see Fuchs 2012; Fuchs et al. 2012; Fuchs 2018; Zuboff 2015). On the other hand, mainstream advertising research that focuses on effectiveness lacks a critical perspective but reveals some findings of what is going on in the field. For this reason, this study aims to associate those findings related to advertising practice and practitioners in a data-oriented market with the changing character of labor in the post-Fordist era, based on immaterial labor.

The following section contextualizes advertising labor within the framework of capitalist production and the production of communication. The third section explicates the effects of big data on advertising practice. The fourth section evaluates the mainstream findings regarding the changing advertising practice through the characteristics of post-Fordist labor such as strategical, relational, and communicative skills. In doing so special attention is paid to the analyses of Christian Marazzi and Paolo Virno on the communicative and relational capabilities of immaterial labor. In the final section, some implications are drawn together with some suggestions for future research.

Labor at the Intersection of Communication and Capital

Various authors formulated various conceptualizations such as informational, cognitive or cybernetic capitalism to explain the development and diffusion of information technologies into the social and cultural fabric (Boutang 2011; Castells 2010; Dyer-Witheford 1999; Fuchs 2014a; Vercellone 2015; see also Fuchs and Chandler 2019; Peters et al. 2009). Autonomists defined this transformation as "a linguistic turn of labor rather than a technological turn" (Pasquinelli 2015, 58), which means that the linguistic and cognitive capabilities of labour underlie the socio-technological change. While studies on immaterial labor helped a lot to understand the labor on networks "previously not recognized as work", they overlooked the characteristics of waged labor surrounded by datafication. Although Couldry and Mejia criticize autonomist tradition for not having a specific interest in data relations (2019, 34), the existing legacy of immaterial labor theories might help to clarify the ongoing change in work processes and the characteristics of formal labor in a datadriven age.

As Maurizio Lazzarato defined, immaterial labor both indicates the informational content of the commodity for which cybernetics and computer control skills are required in labor processes, and the cultural content of the commodity comprising the activities -previously not recognized as worksuch as "defining and fixing cultural and artistic standards, fashions, tastes, consumer norms, and, more strategically, public opinion" (1996, 133). Immaterial labor is an umbrella concept to define the characteristics of post-Fordist labor encompassing its affective-biopolitical and communicative-cognitivelinguistic dimensions. The affective and biopolitical dimension of labor refers to the activities that produce social relations, subjectivities, interactions, affects either in the form of service labor, caring labor, or the labor creating or manipulating affects (Hardt 1999, 95-96; Hardt and Negri 2004, 108). The cognitive dimension of immaterial labor refers to advancing the cognitive and informational capabilities of labor in parallel to the development of cognitive capitalism based on the diffusion of information and technical progress (Vercellone 2015). The communicative and linguistic dimensions of immaterial labor allude to the valorization of human abilities such as relational, strategical, communicative and linguistic capabilities -and their integration into production processes (Marazzi 2017; Virno 2004).2 "Language and communication are crucial for the production of ideas, information, images, affects, social relationships, and the like" (Hardt 2008, 9-10).

Consumer-oriented reorganization of advertising practice is closely connected to the post-Fordist organization of production. Gradually transferred from Japan to Western economies after the crisis in the 1970s, post-Fordist production is based on low-cost production and the organization of supply according to demand in contrast to just-in-case production of Fordism and scale economies. Rather it necessitates knowing about changing tastes of consumers to produce differentiated products (Marazzi 2017, 25). Since those

2 Autonomist authors emphasized different aspects of immaterial labor, and thus some controversies between them exist. For example, Lazzarato criticized Virno as he mainly focused on cognitive, informational and linguistic aspects. These controversies are out of the scope of this article as I draw on the common autonomist themes with an emphasis on Christian Marazzi and Paolo Virno's views.

tastes change very quickly and the competition in the market is very tough, the activities, technologies and approaches for searching, collecting and processing consumer data have become a golden goose for capital. In that sense, the linear relation from production to consumption, and the intermediary role of communication have been radically changed "because communication now turns the relation between supply and demand inside out" (Marazzi 2008, 41) and "communication overlaps with the production process" (Marazzi 2017, 20-21). Also, Lazzarato argues that "the process of the production of communication tends to become immediately the process of valorization", and today "communication is reproduced by means of specific technological schemes, forms of organization and 'management' that are bearers of a new mode of production" rather than "by means of language and the institutions of ideological and literary/artistic production" (1996, 143). Thus, being an integral part of the production process rather than just a complementary aspect, communication itself becomes productive. It does not mediate the relation between production and consumption anymore but plays an essential role in the organization of production. Specifically, advertising and marketing industries have become integral parts of the production process and have been changing their organization of work to meet the requirements of post-Fordist production.

Advertising has long been associated with creating or manipulating affects. The centrality of creativity in advertising production draws its strength from the manipulation of affects. What relatively new for advertising today is that advertising practitioners who traditionally produce the cultural content of commodities have increasingly been affected by the advances in the informational content of commodities such as data analysis and algorithmic techniques. Majority of the studies working on the labor-capital relation in the high-tech era concentrate on the labor of users/consumers commonly theorized as digital labor (Aires 2020; Andrejevic 2012; Fisher 2012; Fuchs 2012a; Fuchs 2014b; Fuchs and Sevignani 2013; Gandini 2016; Hesmondhalgh 2010; Mark and Jennifer 2014; Scholz 2013; Terranova 2013), and the relation between data and surveillance (Andrejevic and Gates 2014; Fuchs et al. 2012, 1-28; van Dijck 2014). There appears a scene in which users create content on one hand, and data methods, algorithms and software applications on the other that collect, process and recreate the content as reusable data. This resulted in declining academic attention toward the labor employed in cultural industries. Within that social and scholarly framework, advertising practitioners got their share and their productive role was replaced by the creativity

of users (Arvidsson 2007) or consumer analytics or programmatic advertising (Erevelles et al. 2016; Neumann 2016). However, value is created in the whole complicated process consisting of both the labor of users -crystalized and commodified as data- and the labor of practitioners working in cultural industries. Accordingly, advertising practitioners maintain their significant role in advertising production by putting relational, strategical and communicative skills into work.

Big Data Impact on Advertising Practice

Advances in information technologies such as data mining methods and algorithmic techniques along with the attempts to analyze big data³ have transformed the whole market landscape including the media industry. Whether an enthusiastic (Bollier 2010; Kitchin 2014; Manovich 2013; Lohr 2015; Mayer-Schönberger and Cukier 2013) or a critical approach (Andrejevic 2012; Beer 2009; Couldry 2017; Couldry and Mejia 2019; Mager 2012) is adopted, it is obvious that data technologies have changed the way many businesses operate. The repercussions of these data-oriented developments in the advertising and marketing world are also remarkable.

A vivid discussion on the consequences of data collecting/processing technologies for media industries is going on in parallel to the progress in artificial intelligence and machine learning. As Douglas C. West indicates, business and academic circles elaborate on how data technology will be applied to marketing practices, and whether this process will be conducted by advertising agencies via professionalizing in a new way or be dominated by tech giants like Google or Amazon (as cited in Deighton 2017, 357). As advertising becomes dependent on consumer analytics more and more, the traditional role of advertising agencies is being challenged by advertising services provided by the walled gardens of Facebook, Amazon and Google as well as technology companies that began to provide "services that look a lot like advertising" (Deighton 2017, 360). More than a decade ago Chris Anderson, the Editor-in-Chief of Wired magazine, said that "Google conquered the advertising world with nothing more than applied mathematics. It didn't pretend to know anything about the culture and conventions of advertising-it just assumed that better data, with better analytic tools, would win the day" ...

3 Big data is commonly defined as data "huge in volume, consisting of terabytes or petabytes of data; high in velocity, being created in or near real-time; diverse in variety in type, being structured and unstructured in nature, and often temporally and spatially referenced" (Kitchin 2014). (as cited in Bollier 2010, 4). According to e-Marketer research in 2017 "Google represents 33 percent of the world's \$223.7 billion in digital ad revenue", and "Facebook is a distant second at \$36 billion [...] or nearly \$40 billion less than Google" (Molla 2017). Especially the use of real-time data in various kinds related to consumers' physiological, behavioral and geospatial information enables advertisers to better measure and improve the effectiveness of digital advertising (Erevelles et al. 2016, 900). Based on real-time data "agencies and brands can now acquire ad spots directly and in real-time through software and user interfaces, known as demand side platforms" (Neumann 2016, 13). Advertisers head for information giants such as Google and Facebook due to the high costs of advertising agencies and low level of feedback about the effectiveness of campaigns.

In that case, data seems to be a magical tool that substitutes the affective, creative, communicative and strategic labor of advertising practitioners in advertising production. However, even mainstream advertising-marketing studies indicate the problems of big data use in advertising. For example, over-targeting (Fulgoni 2013, 375) might result in missing out on some potential groups via over-concentration on knowledge (Erevelles et al. 2016, 899), "generating insights from huge amount of data" might be challenging (Chen and Zhou 2018, 640), or relying upon the same algorithmic demand prediction models derived from the same historical consumer data might end up with producing similar contents (Napoli 2014, 351-352).

In this context, it is possible to say that the advances in data science that facilitate advertising in various ways have not destroyed the pivotal position of advertising practitioners; rather, those professionals have been equipped with new capabilities besides creativity such as strategical, relational, communicative and analytical skills to meet the requirements of the post-Fordist market. This refers to a different tendency from what Manovich foresaw -a "data analysis divide' between data experts and researchers without training in computer science"- (2012, 461). On the contrary, as the need for data experts increases, the need for practitioners who interpret, adapt, recreate and manage these findings increases more. This indicates a need for relational, strategical and communicative labor in the market. "Big data needs big creative," says a creative director arguing that "With huge amounts of data and customer information at our fingertips, we need interpreters, storytellers and dreamers like never before [...] Truly original customer insights require creatives with emotional intelligence and perception, not just experience in Word, Photoshop and InDesign" (Harris 2014).

Evaluating the Findings Through the Lens of Immaterial Labor

Due to new technologies, the shift towards a more interactive and integrated functioning of advertising or the power shift from creative to planning (Deuze 2007, 119) is not a brand new topic. Neither is the interdependency between account executives, creatives, clients and the production team, or the tension within an advertising agency (Deuze 2007; Malefyt and Moeran 2003). As Joseph Turow already said, "The advertising playbook says that practitioners from 'creative', research, and planning/buying should work together for maximum impact of a campaign [...] Nevertheless, the center of gravity in the industry has moved so that the media-buying and planning function has taken outsized importance" (2011, 19). However, advances in data technologies and methods used in collecting and processing consumer data in the last decade have strengthened some old tensions, awakening new questions about advertising practice and the role of advertising practitioners.

On the side of media buying advertising has already paved a considerable way in maximizing profits via programmatic advertising thanks to artificial intelligence and machine learning algorithms (Grether 2016; Kietzmann et al. 2018; Neumann 2016); however, on the side of the creative production of advertising the debate is just starting. Pioneer attempts in China to develop systems based on creative artificial intelligence to automatically produce creative content for advertisements in real-time and IBM Watson's AI-based movie trailer show the capital's interest in this area. For now, automatic advertising production is limited to computational power to collect, edit and reproduce the already available content on the web, and Natural Language Generation⁴ is not advanced enough to produce persuasive advertising (see

4 Natural Language Generation (NLG) is the production of narratives or language from datasets based on artificial intelligence and machine learning. NLG is highly related to Natural Language Processing (NLP) that refers to computers' ability to read the human language, which progresses to understanding human language in advanced forms. One of the most common combinations of NLP and NLG is a chatbot that first reads and understands what people ask and then writes an answer according to the data the computer can process. However, NLG falls short of the market's expectations for automatically producing personalized advertisements creative and persuasive enough. Also, programmatic content production is rather effective in selecting already available creative content and recomposing it as a banner. On the other hand, Alibaba's AI copywriting service that can "produce 20,000 lines of copy per second" (Chen et al. 2019, p. 351) and "Saatchi LA's training IBM Watson to write thousands of advertisement copies for Toyota tailored to more than 100 different customer segments" (Kietzmann et al. 2018, p. 264) are strong signs indicating the progress of NLG in terms of automatic copywriting. Chen et al. 2019). The problems of automatic copywriting indicate that although it is possible to automatically utilize consumer big data, the profit seems to lie beneath the ability of communication which requires linguistic capabilities of labor to communicate as well as its relational and strategic capabilities to contextualize.

Adaptive Capability for Creating Value

Post-Fordist labor is highly communicative and requires high *linguistic* skills⁵ to be productive. This type of labor necessitates a capacity to understand all types of symbolic activity not only in the field of information technologies but also at a *sensual-intuitional level*. It means that the capability -provided by language- of making generalizations and of going beyond data and instrumental-mechanical activity lie directly inside the production process (Marazzi 2017, 42). Although data-oriented approaches ignore the linguistic and affective capabilities of labor, the vitality of such sensual-intuitional capabilities of advertising practitioners has been indicated in various ways in mainstream advertising-marketing research. For example, Erevelles and his colleagues drew attention to the risks of adopting a knowledge-based approach in utilizing consumer insights from big data, and suggested "partial ignorance" to enable a firm to utilize insights from big data to facilitate the firm's adaptive capability because "uncovering hidden consumer insights enable marketers to predict consumer behavior better" (Erevelles et al. 2016, 900). That adaptive capability resides in the affective, linguistic and communicative types of labor.

Furthermore, in their research on the Chinese advertising practitioners' perspective on big data, Huan Chen and Liling Zhou (2018) suggested that according to the participants the appropriate interpretation of big data is crucial for its commercialization. Participants underlined the difficulty in "generating insights from huge amounts of data" and the significance of having a "business value" to make sense of data analyses and the ability to use the data to solve problems (640-642). A significant number of participants thought that "generating insights into consumers' needs" is the core ability of advertising professionals and the core value of the advertising industry, and they also believed that the basis of advertising is still communication while big data performs a supportive function in producing so (642-644). Moreover, the rising amount of consumer data necessitates analytical labor to make generalizations, and draw deductions, in other words, to see the whole picture (Lee and Lau 2018, 145).

•••

5 Throughout the paper -including quotations- I use italics for emphasis unless otherwise stated.

In that sense, no matter how much and how real-time consumer data a firm has, data is fluent and unstable while intellectual capital that lies in these capabilities is stable (see Marazzi 2017, 93-96). This intellectual capital is very significant for companies to compete in a rapidly changing market; however, as a result of the fascination with data, "Firms sometimes rely too much on existing knowledge/past experiences hindering changes to the organizational structure needed to adapt to rapid market changes" (Teece et al. cited in Erevelles et al. 2016, 900). A firm's adaptive capability underlined here is very important in the post-Fordist economy where production is organized according to the demand received in short periods through communication, and this adaptive capability as the immaterial capital of the firm rests on the relational, strategical, affective and communicative capabilities of labor.

Beyond Creativity: Strategical, Relational And Communicative Skills Are At Work

The research on advertising practice suggests that creativity still plays a crucial role in advertising production and it defines advertising practitioners' professional identity. Furthermore, they need to expand their skills from creativity to administrative and managerial capabilities (Chan 2017; Lee and Lau 2018, 2019; Moeran 2009). In their research on the changing role of advertising practitioners in the social media marketing era, Lee and Lau concluded that the role of advertising practitioner is changing from a traditional "idea generator" to a "solution facilitator" in response to the rise of social media marketing (2019, p. 13).

In the past, advertising professionals work on creative ideas and production based on an advertising strategy that was formulated by clients and planners. With the rise of social media marketing, however, this practice is changed. [...] advertising professionals need to become involved in the strategic formulation of marketing and advertising activities together with planners and clients (p. 11).

The authors identified three role identities advertising creatives play: creative strategist, creative producer and creative facilitator. The *strategist* role requires "a more strategic mindset and the ability to communicate effectively with clients, planners and other industry stakeholders to come up with insights for advertising"; the *producer* role necessitates "to collaborate with a range of technical and production experts"; and the *facilitator* role involves "embracing a wider set of collaborations in the process of idea generation" (Lee and Lau 2018, 153). Moeran (2009) also provided similar findings from

the long-term participant observation in a Japanese advertising agency. He observed the dual creative-administrative role of the key personnel in an advertising agency in the late 1990s, a combination of creative and managerial roles. Nonetheless, his observation is different from the findings of Lee and Lau (2018) when looked at carefully. Moeran describes a dual role in the production process, and this managerial role is about the management of the people inside an agency or the people employed by the agency. For example, "An art director is 'creative' when trying to come up with a creative platform for his account team's client, but takes on an administrative role once he enters the studio" (2009, 981). It is about and inside the creative production process. On the other hand, what Lee and Lau (2018) account for indicates a profound change in the nature of the work advertising practitioners do, and the production of an advertising campaign expands to the strategic formulation of marketing-advertising together with planners and clients. Creatives complained that they "could no longer focus solely on generating creative ideas, but had to offer 'solutions' which make use of different communication media to achieve advertising goals". They also have to deal with business and motivating consumers more than they consider creativity and its execution, and they have to "cooperate with a wider spectrum of support crew, such as 'tech teams' including programmers and digital experts" (Lee and Lau 2018, 144-148).

These profound changes regarding the work of advertising practitioners were evaluated by Lee and Lau in the context of the "professional identity and self-identities" of employees. However, in parallel to the changing relation between communication and production as the former has become an integral part of the latter, advertising practitioners' changing work experience reflects the changing organization of labor in the post-Ford era beyond professional identities. According to Paolo Virno when the sharing of linguistic and cognitive habits becomes a technical requirement, division of labor or "the segmentation of duties no longer answers to objective 'technical' criteria" and becomes arbitrary, reversible and changeable (2004, 41-42). Thus, blurring occupational divisions in an advertising agency and the expansion of required skills from creative to communicative, strategic and relational are manifested in practitioners' new "solution finder" and "managerial" roles. This is part and parcel of the post-Fordist organization of advertising production in an increasingly data-and-technology-driven market where communicative powers are needed more, both for creating and satisfying the demand, contrary to the Fordist organization of advertising production where the "privileged" labor of creatives used to pioneer the advertising process.

44 < ilef dergisi

The changing nature of creativity in advertising work triggered another criticism rooted at the intersection of immaterial labor and branding studies. Thanks to social media, data collecting mechanisms and algorithmic branding (Carah 2017; McStay 2011; Turow and Couldry 2018), firms can conduct more powerful branding activities by making use of consumer creativity and sociality. Although branding activities do not necessarily exclude the work of advertising practitioners, its role is narrowed due to mechanisms facilitating a more direct relationship between consumers and brands. According to Adam Arvidsson, "brands build on the immaterial labor of consumers, their ability to create an ethical surplus, a social bond, a shared experience, a common identity through productive communication" (2005, 235), and "the creative content of advertising was mostly produced by this 'creative proletariat', while salaried advertising professionals mostly functioned as a sort of administrative class of the creative economy" (2007, 8). Arvidsson's approach is problematic in two aspects. First, concentrating solely on the labor of users or citizen-consumers and ignoring the role of wage-laborers is a strong tendency in the relevant literature. However, value is extracted in the whole process of production and circulation of a commodity or a service (Marazzi 2017, 94), and immaterial labor lies in that whole process. It is incontestable that advertising practitioners make use of the content produced by the immaterial labor of consumers either via consumer analytics or directly taking inspiration from consumer comments (see Lee and Lau 2018). Advertising practitioners recreate that content, work on it, and make it valuable for the creative economy just like Arvidsson says. However, this does not necessarily make them an administrative class; rather, they co-create an immaterial product. The labor of users and practitioners are two different facets of immaterial labor. Lazzarato suggests that "immaterial workers (those who work in advertising, fashion, marketing, television, cybernetics, and so forth) satisfy a demand by the consumer and at the same time establish that demand" (1996, 142), and this is realized within communication which is socially co-produced by consumers and immaterial laborers working in cultural industries. Similarly, Mazzarella says that the practice of advertising generates value and meaning out of the elements of public culture -images, discourses, signs-, and "it is so implicated in general movement towards both 'marketization' of the public life and the 'imagination' of the market" (2003, 62-63).

Secondly, defining advertising practitioners either as a creative class (Florida 2012) or an administrative class, or a "managerial class of the creative economy' (Arvidsson 2007) are all problematic, especially in the post-Fordist

epoch of advertising. On the contrary, the privileged position of advertising practitioners -specifically that of creatives- in Fordist advertising production has already been crumbled with precarization and the degradation of work as a result of the post-Fordist reorganization of cultural industries (de Peuter 2011; Gill and Pratt 2008; Hesmondhalgh and Baker 2010).⁶ The role of creativity in advertising practice is merged with managerial/collaborative, communicative/solution finding, and strategic/planning skills discussed above (Chan 2017; Chen and Zhou 2018; Lee and Lau 2018, 2019; Moeran 2009). These characteristics do not kick the labor of advertising practitioners out of the scope of immaterial labor; on the contrary, changing character of their labor is in line with the post-Fordist characteristics of cultural industries -also of social production in general- as Virno explicates:

In the culture industry, that is to say, it was therefore necessary to maintain a certain space that was *informal*, *not programmed*, one which was open to the *unforeseen* spark, to *communicative and* creative *improvisation*: not in order to favor human creativity, naturally, but in order to achieve satisfactory levels of corporate productivity. [...] The *informality of communicative behavior*, the competitive *interaction* typical of a meeting, the *abrupt diversion* that can enliven a television program (in general, everything which it would have been *dysfunctional to rigidify and regulate* beyond a certain threshold), has become now, in the post-Ford era, a typical trait of the entire realm of social production (2004, 60).

Lee and Lau underline very similar characteristics related to advertising work in line with Virno's remarks by suggesting that in the advertising industry "one's role is not given by scripted rules but rather is *improvised* while *interacting* with other members in the social system. In other words, "the advertising professionals' perceived role and identity is one of the continuous engagements in forming, maintaining, strengthening, repairing or revising the expectations in the social system" (2019, 3). The emphasis on the subjective aspects of labor in the details of mainstream findings manifests a silent confirmation of the productivity of subjectivities of labor contrary to the enthusiasm of business circles for automation, data-centered decision making and eliminating human-centered problems. Furthermore, the developments favoring a data-based and technology-centered cultural production serve for exploiting the subjectivities of labor more effectively rather than eliminating **...**

⁶ These studies indicate the precarization of work in cultural industries of advanced capitalist countries. Losing privileges or precarization might be deeper in cultural industries of (semi) peripheral countries. For a digital advertising agency in Turkey as an example, see Atici 2016.

its role. The labor of advertising practitioners and its ongoing significant role in advertising production is mystified by the terminology of business studies. The flexible organization of advertising work according to the needs of the industry to manage available data with creativity, and the integration of communicative, affective and linguistic powers into work to generate insight from data indicate the post-Fordist organization of advertising labor.

Erosion Of Divisions Under The Umbrella Of Immaterial Labor

Expansion of advertising practitioners' capabilities from creativity to more strategical, relational, communicative, and managerial skills together with the blurring of occupational divisions -for example between creatives and account managing- is also a reflection of post-Fordist disintegration of the division of labor in advertising production. Since production becomes communicative, it requires sharing linguistic and cognitive habits as productive forces. In that sense, general intellect/mass intellectuality discussed within the context of consumer agency in advertising literature is integrated into the production process and capitalist valorization. At the same time, this process works against the old "specializations", "professionality" and "the ancient concept of skills" as new communicative requirements are generic habits of the human-animal (Virno 2004, 41). This contradicts the division of labor, which means "the segmentation of duties no longer answers to objective 'technical' criteria, but is, instead, explicitly arbitrary, reversible, changeable" (2004, 42). Likewise, the findings of existing literature on the changing work experience of advertising practitioners suggest that the data-driven market forces them to be more flexible, quickly adaptable to unexpected situations, be good problem solvers, and deal with both creative and strategic activities contrary to the traditional segmented duties of advertising production (Chan 2017; Chen and Zhou 2018; Lee and Lau 2018, 2019; Moeran 2009). "As far as capital is concerned, what really counts is the original sharing of linguisticcognitive talents, since it is this sharing which guarantees readiness, adaptability, etc., in reacting to innovation" (Virno 2004, 42). As data technologies enable more specific and real-time data in such a competitive market, which results in quick changes in marketing and advertising plans, the adaptive capability of the firms has gained prominence. "Adaptive capability derives not from a specific change in organizational structure but from the overall ability to capture consumer activities and extract hidden insights" (Ma, Yao, and Xi as cited in Erevelles et al. 2016, 899). That overall adaptive capability needed in advertising production is manifested in the shift from creative to more relational, strategical, and communicative skills.

Thus, immaterial labor is relevant for advertising production in terms of two aspects. First, immaterial labor in the production of advertising stands for the labor of users collected, processed and commodified as data. Behavioral, transactional, emotional, geographical and psychological data of users are commodified by various market actors, which is well explained by digital/user labor scholarship. Second, immaterial labor also refers to the post-Fordization of advertising labor. The integration of user-generated content into cultural production as data as well as the effects of a precision and dataoriented market and rapidly-changing digital tools have made advertising labor more flexible and multi-skilled.

Although the division of labor has not disappeared, the segmentation of duties seems to be reorganized in an advertising agency. While data experts are becoming more communicative, creatives turn out to be more bound by the existing data, which take the forms of the aestheticization of data or justification of creativity via data. Also, account management is expected to manage the dialogue between the two. Thus, instead of a "data-analysis divide" the advertising industry heads for a marriage between data and creative sides. On the other hand, advertising customers do not always look for a perfect blend of data and creativity. The demand for an easy-fast-cheap way of digital advertising might bring about the degradation of advertising work.

Conclusion Or Some Implications

It is incontestable that data-oriented market strategies have been affecting advertising practice in various ways from client-agency relationships to inner tensions within an agency. On one hand, data methods and technologies stand against the intuitive and creative practice of advertising practitioners by providing a large amount of specified consumer data; on the other, consumers appear as active agents in the making of the advertising, branding and marketing activities. In between, the labor of advertising practitioners has blurred.

Although data-centered developments privilege data-oriented jobs by forcing advertising practitioners to comply with new methods and technologies and to learn new techniques, advertising production still rests upon the communicative, relational, strategic and affective labor of advertising practitioners. In that sense, the eroded role of creativity indicated in the relevant literature was not interpreted as a sign of the waning power of advertising practitioners, rather it was contextualized within the characteristics of postFordist labor. Capitalist development is based on extracting value from mass intellectuality/general intellect (Lazzarato 1996; Virno 1996, 2007), which means that socially necessary labor for production is diffused into the whole society. This diffusion is enabled via the personalization of data and information technologies that provide specific, continuous and personal data flows of various kinds. There appears to be a two-dimensional phenomenon. While creative powers and other skills traditionally defined as "professional" diffuse into society and become "ordinary", ordinary human abilities such as relational, communicative, strategical, and linguistic skills -used to fall outside the capitalist work- are included in capitalist valorization. In other words, "intellectual (or complex) labor cannot be equated with a network of specialized knowledge, but becomes one with the use of the generic linguistic-cognitive faculties of the human animal" (Virno 2004, 110). Within this framework, this article suggested that advertising practitioners might have lost the privilege of some professional skills like creativity because of the active agency of consumers and consumer data, which might result in the degradation of advertising work. However, the core role of advertising practitioners has not been changed because their relational, strategical, communicative and linguistic skills are put to work profoundly. The more data the market has, the more unstable it becomes. In such an economy of abundance (Gorz 2003, 36) the skills for generating correlations/connections, finding solutions to unexpected situations, adapting to abrupt changes, and managing complex and multilayered work organizations have been valorized in such a competitive market. Equipped with these skills the labor of advertising practitioners keeps its pivotal role in advertising production because these skills themselves have become fixed capital. These skills are "imprinted into them and at the same time subordinated to them [...] where work is not crystallized in a physical product [...] but remains incorporated in the brain and inseparable from the person" (Negri 2019, 211). Reading mainstream findings within the context of immaterial labor, this article suggested that the reorganization of advertising labor according to the demands of a data-oriented market is the missing piece of the puzzle for a thorough understanding of contemporary advertising.

This article also suggested that the blurring of professional divisions in advertising production is associated with the changing characteristics of practitioners' labor based on their relational, strategic and communicative skills. Based on the analyses of Virno and Marazzi, this change was defined as the ordinaryization of professional skills and valorization of human abilities, which makes the division of labor controversial. It might also be inferred that capital's conquest of linguistic and communicative capabilities of labor is still limited, which is evident in capital's need for this kind of labor in the advertising industry despite astonishing developments in algorithmic use of big data and Natural Language Generation.

Finally, it is possible to conclude that advertising practitioners' labor has been neglected by Marxist tradition possibly because of the ideological role of advertising. When labor was rediscovered in the digital age, it was again neglected because the attention shifted to user labor and the role of targeted advertising in the Internet economy. Mainstream advertising studies on the experience of advertising practitioners do not prioritize labor analytically. Therefore, we urgently need empirical research on practitioners' experience in a data-oriented market to answer how data is affecting advertising labor, how the relationship between data and creativity is set, and what the emerging tensions are in creative agencies that utilize data analytics. It might create new opportunities to reconsider the role of the advertising industry in the reproduction of contemporary capitalism.

References

- Anderson, Chris W. 2011. "Between Creative and Quantified Audiences: Web Metrics and Changing Patterns of Newswork in Local US Newsrooms." *Journalism* 12 (5): 550-566. <u>https://doi.org/10.1177/1464884911402451.</u>
- Aires, Susana. 2020. "Labored Identity: An Analysis of User Branding Practices on Instagram." *Triple C: Communication, Capitalism & Critique* 18 (1): 494-507. https://doi.org/10.31269/ triplec.v18i1.1142 <u>.</u>
- Andrejevic, Mark. 2012. "Exploitation in the Data Mine." In *Internet and Surveillance: The Challenges of Web 2.0 and Social Media*, edited by Christian Fuchs, Kees Boersma, Anders Albrechtslund and Marisol Sandoval, 71-88. New York: Routledge.
- Andrejevic, Mark and Kelly Gates. 2014. "Big Data Surveillance: Introduction." Surveillance & Society 12 (2): 185-196.
- Arvidsson, Adam. 2005. "Brands: A Critical Perspective." *Journal of Consumer Culture* 5 (2): 235–258.

https://doi.org/10.1177/1469540505053093.

- Arvidsson, Adam. 2007. "Creative Class or Administrative Class? On Advertising and the 'Underground'." Ephemera Theory & Politics in Organization 7 (1): 8-23.
- Atıcı, Selim Gökçe. 2016. "Post-Fordist Affects, Times, and Images: An Ethnography of Circulation in a Digital Advertising Agency in Istanbul." Master's diss., Boğaziçi University.
- Beer, David. 2009. "Power Through the Algorithm? Participatory Web Cultures and the Technological Unconscious." New Media & Society 11 (6): 985-1002. <u>https://doi.org/10.1177/1461444809336551.</u>
- Bollier, David. 2010. The Promise and Peril of Big Data. Washington, DC: The Aspen Institute.
- Boutang, Yann Moulier. 2011. *Cognitive Capitalism*. Translated by Ed Emery. Cambridge: Polity Press.
- Carah, Nicholas. 2017. "Algorithmic Brands: A Decade of Brand Experiments with Mobile and Social Media." *New Media & Society* 19 (3): 384–400. <u>https://doi.org/10."1177/1461444815605463.</u>
- Carlson, Matt. 2014. "The Robotic Reporter." *Digital Journalism* 3 (3): 416-431. https://doi.org/10.1080/21670811.2014.976412.
- Castells, Manuel. 2010. The Information Age: Economy, Society and Culture. Volume I The Rise of the Network Society. 2nd ed. West Sussex: Wiley-Blackwell.
- Chen, Gang, Peihong Xie, Jing Dong and Tianfu Wang. 2019. "Understanding Programmatic Creative: The Role of AI." *Journal of Advertising* 48 (4): 347-355.
- Chan, Lik Sam. 2017. "Cultivation and Erosion of Creative Identity: A Hong Kong Advertising Agency as Case Study." *Continuum* 31 (2): 325-335. https://doi.org/10.1080/10304312.2016.1257696

- Chen, Huan and Liling Zhou. 2018. "The Myth of Big Data: Chinese Advertising Practitioners' Perspective." International Journal of Advertising 37 (4): 633-649. https://doi.org/10.1080/02650487.2017.1340865.
- Couldry, Nick. 2017. "The Myth of Big Data." In *the Datafied Society Studying Culture Through Data*, edited by Mirko Tobias Schäfer and Karin van Es, 235-239. Amsterdam: Amsterdam University Press.
- Couldry, Nick and Ulises Ali Mejias. 2019. *The Costs of Connection: How Data Is Colonizing Human Life and Appropriating It for Capitalism*. Stanford: Stanford University Press.
- de Peuter, Greig. 2011. "Creative Economy and Labor Precarity: A Contested Convergence." Journal of Communication Inquiry 35 (4): 417–425. https://doi.org/10.1177/0196859911416362.
- Deighton, John A. 2017. "Rethinking the Profession Formerly Known as Advertising: How
 Data Science Is Disrupting the Work of Agencies." *Journal of Advertising Research* 57 (4): 357–361.
 https://doi.org/10.2501/JAR-2017-045.
- Deuze, Mark. 2007. Media Work. Cambridge: Polity Press.
- Dyer-Witheford, Nick. 1999. *Cyber-Marx: Cycles and Circuits of Struggle in High Technology Capitalism.* Illinois: University of Illinois Press.
- Elefante, Phoebe Harris and Mark Deuze. 2012. "Media work, career management, and professional identity: Living labor precarity." *Northern Lights* 10 (1): 9–24. <u>https://doi.org/10.1386/nl.10.1.9_1</u>.
- Erevelles, Sunil, Nobuyuki Fukawa, and Linda Swayne. 2016. "Big Data Consumer Analytics and the Transformation of Marketing." *Journal of Business Research* 69 (2): 897-904. <u>https://doi.org/10.1016/j.jbusres.2015.07.001.</u>
- Fisher, Eran. 2012. "How Less Alienation Creates More Exploitation? Audience Labor on Social Network Sites." tripleC: Communication, Capitalism & Critique, 10 (2): 171-183. <u>https://doi.org/10.31269/triplec.v10i2.392.</u>
- Florida, Richard. 2012. The Rise of the Creative Class, Revisited. New York: Basic Books.
- Fuchs, Christian. 2012a. "Google Capitalism." *tripleC: Communication, Capitalism & Critique*, 10 (1): 42-48.

https://doi.org/10.31269/triplec.v10i1.304.

- Fuchs, Christian. 2012b. "Dallas Smythe Today The Audience Commodity, the Digital Labour Debate, Marxist Political Economy and Critical Theory. Prolegomena to a Digital Labour Theory of Value." tripleC: Communication, Capitalism & Critique, 10(2): 692-740. DOI: <u>https://doi.org/10.31269/triplec.v10i2.443</u>
- Fuchs, Christian. 2014a. Digital Labor and Karl Marx. New York: Routledge.
- Fuchs, Christian. 2014b. "Digital Presumption Labor on Social Media in the Context of the Capitalist Regime of Time." *Time & Society* 23 (1): 97–123. <u>https://doi.org/10.1177/0961463X13502117.</u>

- Fuchs, Christian. 2018. *The Online Advertising Tax: A Digital Policy Innovation*. London: University of Westminster Press.
- Fuchs, Christian, Kees Boersma, Anders Albrechtslund, and Marisol Sandoval. 2012. *Internet and Surveillance the Challenges of Web 2.0 and Social Media*. New York: Routledge.
- Fuchs, Christian and David Chandler. 2019. "Introduction Big Data Capitalism Politics, Activism, and Theory." In Digital Objects, Digital Subjects: Interdisciplinary Perspectives on Capitalism, Labor and Politics in the Age of Big Data, edited by David Chandler and Christian Fuchs, 1–20. London: University of Westminster Press.
- Fuchs, Christian and Sebastian Sevignani. 2013. "What is Digital Labor? What is Digital Work? What's Their Difference? And Why Do These Questions Matter for Understanding Social Media?." tripleC: Communication, Capitalism & Critique 11 (2): 237-293. https://doi.org/10.31269/triplec.v11i2.461.
- Fulgoni, Gian. 2013. "Big Data: Friend or Foe of Digital Advertising?." Journal of Advertising Research 53 (4): 372-376. <u>https://doi.org/10.2501/JAR-53-4-372-376.</u>
- Gandini, Alessandro. 2016. "Digital Work: Self-Branding and Social Capital in the Freelance Knowledge Economy." *Marketing Theory* 16 (1): 123–141. https://doi.org/10.1177/1470593115607942.
- Gill, Rosalin and Andy Pratt. 2008. "In the Social Factory? Immaterial Labor, Precariousness and Cultural Work." Theory, Culture & Society 25 (7-8): 1-30. <u>https://doi.org/10.1177/0263276408097794.</u>
- Gorz, Andre. 2011. *Maddesiz: Bilgi Değer ve Sermaye.* Translated by Işık Ergüden. İstanbul: Ayrıntı.
- Grether, Mark. 2016. "Using Big Data for Online Advertising Without Wastage: Wishful Dream, Nightmare or Reality?." Online Advertising 8 (2): 39-43. https://doi.org/10.1515/gfkmir-2016-0014
- Hardt, Michael. 1999. "Affective Labor." boundary 2, 26 (2): 89-100.
- Hardt, Michael. 2008. "Introduction: Language at Work." In *Capital and Language: From the New Economy to the War Economy*", edited by Christian Marazzi, 7-11. Los Angeles: Semiotext(e).
- Hardt, Michael and Antonio Negri. 2004. *Multitude: War and Democracy in the Age of Empire*. New York: The Penguin Press.
- Harris, Jeff. 2014. "Big Data Needs Big Creative." NZ Marketing Magazine, July / August 2014.
- Hesmondhalgh, David. 2010. "User-Generated Content, Free Labor and The Cultural Industries." *Ephemera* 10 (3/4): 267-284.
- Hesmondhalgh, David and Sarah Baker. 2010. "A Very Complicated Version of Freedom: Conditions and Experiences of Creative Labor in Three Cultural Industries." *Poetics*, 38 (1): 4-20.

https://doi.org/10.1016/j.poetic.2009.10.001.

- Hesmondhalgh, David and Sarah Baker. 2011. *Creative Labor: Media Work in Three Cultural Industries*. Oxon: Routledge.
- Jhally, Sut. 1982. "Probing the Blindspot: The Audience Commodity." *Canadian Journal of Political* and Social Theory 6 (1-2): 204-210.
- Jhally, Sut and Bill Livant. 1986. "Watching as Working: The Valorization of Audience Consciousness." *Journal of Communication* 36 (3): 124-143.
- Kıyan, Zafer (2015). "Eski(meyen) Bir Tartışma: İzleyici Metası." Akdeniz Üniversitesi İletişim Fakültesi Dergisi 24: 230-255.
- Kietzmann, Jan, Jeannette Paschen and Emily Treen. 2018. "Artificial Intelligence in Advertising How Marketers Can Leverage Artificial Intelligence Along the Consumer Journey." *Journal of Advertising Research* 58 (3): 263-267. <u>https://doi.org/10.2501/JAR-2018-035</u>.
- Kitchin, Rob. 2014. The Data Revolution: Big Data, Open Data, Data Infrastructures & Their Consequences. London: Sage.
- Lazzarato, Maurizio. 1996. "Immaterial Labor." In *Radical Thought in Italy: A Potential Politics,* edited by Paolo Virno and Michael Hardt, 133-150. Minneapolis: University of Minnesota Press.
- Lee, Pui Yuen and Kung Wong Lau. 2018. "A New Triadic Creative Role for Advertising Industry: A Study of Creatives' Role Identity in the Rise of Social Media Advertising." *Creative Industries Journal* 11 (2): 137-157. <u>https://doi.org/10.1080/17510694.2018.1434362.</u>
- Lee, Pui Yuen and Kung Wong Lau. 2019. "From an "Idea Generator" to a "Solution Facilitator": A Study of the Changing Roles of Advertising Professionals in the Social Media Marketing Era." *Career Development International* 24 (1): 2-17. <u>https://doi.org/10.1108/CDI-03-2018-0080.</u>
- Livant, Bill. 1982. "Working at Watching: A Reply to Sut Jhally." *Canadian Journal of Political and Social Theory* 6 (1-2): 211-215.
- Lohr, Steve. 2015. Data-ism: The Revolution Transforming Decision Making, Consumer Behavior, and Almost Everything Else. New York: Harper-Collins.
- Lovink, Geert and Ned Rossiter. 2007. *My Creativity Reader: A Critique of Creative Industries*. Amsterdam: Institute of Network Cultures.
- Mager, Astrid. 2012. "Algorithmic Ideology. How Capitalist Society Shapes Search Engines. Information." Communication & Society 15 (5): 769-787. <u>https://doi.org/10.1080/1369118X.2012.676056.</u>
- Malefyt, Timothy de Waal and Brian Moeran. 2003. Advertising Cultures. Oxford: Routledge.
- Manovich, Lev. 2012. "Trending: The Promises and the Challenges of Big Social Data." In *Debates in The Digital Humanities*, edited by Matthew K. Gold, 460-475. Minneapolis, University of Minnesota Press.

Manovich, Lev. 2013. Software Takes Command. New York: Bloomsbury.

- Marazzi, Christian. 2017. *Sermaye ve Duygular:* Çorapların *Yeri.* Translated by Münevver Çelik. Istanbul: Otonom.
- Marazzi, Christian. 2008. *Capital and Language: From the New Economy to the War Economy*. Los Angeles: Semiotext(e).
- Mayer-Schönberger, Viktor and Kenneth Cukier. 2013. *Big Data: A Revolution That Will Transform How We Live, Work, and Think*. New York: Houghton Mifflin Harcourt.
- Mazzarella, William. 2003. "Critical Publicity/Public Criticism: Reflections on Fieldwork in the Bombay Ad World." In *Advertising Cultures*, edited by Timothy de Waal Malefyt and Brian Moeran, 55-76. Oxford: Routledge.
- McStay, Andrew. 2011. The Mood of Information: A Critique of Online Behavioural Advertising. New York: Continuum.
- Moeran, Brian. 2009. "The Organization of Creativity in Japanese Advertising Production." Human Relations 62 (7): 963–985. https://doi.org/10.1177/0018726709335541.
- Molla, Rani. 2017. "Google Leads the World in Digital and Mobile Ad Revenue.", Vox, July 24, 2017. <u>https://www.vox.com/2017/7/24/16020330/google-digital-mobile-ad-revenue-world-leader-facebook-growth</u>.
- Napoli, Philip M. 2014. "Automated Media: An Institutional Theory Perspective on Algorithmic Media Production and Consumption." *Communication Theory* 24: 340-360. <u>https://doi.org/10.1111/comt.12039.</u>
- Negri, Antonio. 2019. "The Appropriation of Fixed Capital: A Metaphor?." In *Digital Objects, Digital Subjects: Interdisciplinary Perspectives on Capitalism, Labor and Politics in the Age of Big Data,* edited by David Chandler and Christian Fuchs, 205–214. London: University of Westminster Press.
- Neumann, Nico. 2016. "The Power of Big Data and Algorithms for Advertising and Customer Communication." International Workshop on Big Data and Information Security (IWBIS), 13-14. <u>https://doi.org/10.1109/IWBIS.2016.7872882.</u>
- Örnebring, Henrik. 2010. "Technology and Journalism-as-labor: Historical Perspectives." *Journalism* 11 (1): 57-74. <u>https://doi.org/10.1177/1464884909350644</u>.
- Pasquinelli, Matteo. 2015. "Italian Operaismo and the Information Machine." Theory, Culture & Society 32 (3): 49–68. https://doi.org/10.1177/0263276413514117.
- Sylvain Parasie and Eric Dagiral. 2012. "Data-driven journalism and the public good: "Computer-assisted-reporters" and "programmer-journalists" in Chicago." *New Media* & Society 15 (6): 853-871. https://doi.org/10.1177/1461444812463345.

- Peters, Michael A., Rodrigo Britez and Ergin Bulut. 2009. "Cybernetic Capitalism, Informationalism and Cognitive Labor." *Geopolitics, History and International Relations* 1 (2): 11-40.
- Ross, Andrew. 2009. *Nice Work If You Can Get It: Life and Labor in Precarious Times*. New York: New York University Press.
- Scholz, Trebor. 2013. Digital Labor the Internet as Playground and Factory. New York: Routledge.
- Smythe, Dallas Walker. 1977. "Communications: Blindspot Of Western Marxism." Canadian Journal of Political and Society Theory 1(3): 1–28.
- Terranova, Tiziana. 2013. "Free Labor." In *Digital Labor the Internet as Playground and Factory*, edited by Trebor Scholz, 33-57. New York: Routledge.
- Turow, Joseph. 2011. The Daily You: How the New Advertising Industry is Defining Your Identity and Your Worth. New Haven: Yale University Press.
- Turow, Joseph and Nick Couldry. 2018. "Media as Data Extraction: Towards a New Map of a Transformed Communications Field." *Journal of Communication* 68 (2): 267-277.
- Van Dalen, Arjen. 2012. "The Algorithms Behind the Headlines: How machine-written News Redefines the Core Skills of Human Journalists." *Journalism Practice* 5 (6): 648-658. <u>http://dx.doi.org/10.1080/17512786.2012.667268</u>.
- van Dijck, José. 2014. "Datafication, Dataism and Dataveillance: Big Data Between Scientific Paradigm and Ideology." Surveillance & Society 12 (2): 197-208. <u>https://doi.org/10.24908/ss.v12i2.4776.</u>
- Vercellone, C. 2015. "Bilişsel Kapitalizm Varsayımına Dair Marksist Bir Okumanın Unsurları." Translated by Durdu Kundakçı. In Bilişsel Kapitalizm Post-Fordist Dönemde Bilgi ve Finans, edited by Carlo Vercellone, 41-60. Istanbul: Otonom Yayıncılık.
- Virno, Paolo. 1996. "Virtuosity and Revolution: The Political Theory of Exodus." In Radical Thought in Italy, edited by Paolo Virno and Michael Hardt, 189-212. Minneapolis: University of Minnesota Press.
- Virno, Paolo. 2004. A Grammar of Multitude: For an Analysis of Contemporary Forms of Life. Los Angeles: Semiotext(e).
- Virno, Paolo. 2007. "General Intellect." *Historical Materialism* 15 (3): 3–8. https://doi.org/10.1163/156920607X225843.
- Zuboff, Shoshana. 2015. "Surveillance Capitalism." Journal of Information Technology 30: 75–89. https://doi.org/10.1057/jit.2015.5.