

Control Regimes on Mobile Working Labor Process: The Case of Turkish Telecommunication Industry*

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Abstract: The job content and work practices for office workers have significantly changed since the publication of “Labor and Monopoly Capital” (Braverman, 1974). With the advent of Mobile Internet ‘white-collar work’ has been virtualized and decentralized radically. The work place is extended and augmented to include all private and public spheres. The worker is isolated, further alienated and has lost the basis for solidarity of a traditional workplace. By revisiting Braverman’s analyses of labor process that calls for a social approach, this paper aims to contribute to discussions of the labor process and explores the new forms of employment in the mobile working era of telecommunication workers in the Turkish telecom industry.

Examination of the survey findings with mobile telecom workers showed that mobile working accelerates surplus value production via rising managerial surveillance and intensification of the labor process. Mobile working includes increased control over labor and a hidden form of control, facilitating a real subsumption of labor. The changing organic composition of dead labor and living labor causes hybrid control regimes that include both conventional and technology-intensive labor controls. Continuous skill development needs and associated increase in workload act as parts of the control over labor process. The intervention of capitalist power in workers’ private time is transforming social relations between capital and labor. With the removal of temporal and spatial boundaries between work and private life, the internal division of the worker between herself and her work began to be blurred and duality almost disappeared.

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Mobil Çalışma Emek Süreci Üzerindeki Kontrol Rejimleri: Türkiye Telekomünikasyon Sanayi Örneği

Öz: Ofis çalışanları için, iş tanımı ve işyeri pratikleri “Labor and Monopoly Capital” (Braverman, 1974) kitabının yayınlanmasından beri önemli değişim geçirdi. Mobil İnternetin etkisiyle ‘beyaz yakalı işler’ radikal boyutlarda sanallaştırılıp, mekânsızlaştırıldı. İşyerleri özel ve kamusal alanları içerecek şekilde genişletildi. Bu süreçte işçinin yalnızlaştırılması yabancılaştırmayı artırdı ve geleneksel işyerinin sağladığı dayanışma potansiyelini kaybetmesine yol açtı. Bu çalışmada Braverman’ın emek süreci analizleri ve onun sosyal bir bakış açısının gereğine olan vurgusu tekrar gündeme getirilerek, emek süreci tartışmalarına katkı sağlanması amaçlanmakta ve Türkiye telekomünikasyon sektöründeki telekomünikasyon işçilerinin mobil çalışma dönemindeki yeni istihdam biçimleri tartışılmaktadır. Telekomünikasyon sektörü çalışanları ile yapılan anket sonuçlarının incelenmesi, yönetsel gözetimin artışı ve emek sürecinin yoğunlaşması sayesinde mobil çalışmanın artı değer sağaltımını çoğalttığını göstermektedir. Mobil çalışma, emek üzerinde artan kontrol ile emeğin reel boyunduruğuna olanak veren gizli bir kontrol biçimini içermektedir. Sermayenin canlı ve ölü emek arasında değişen organik bileşimi, geleneksel ve teknoloji-yoğun emek denetimlerini aynı anda içeren melez kontrol rejimlerine yol açmaktadır. Sürekli beceri gelişimi gereği ve buna eşlik eden iş yükündeki artış emek süreci üzerinde artan kontrolün bileşeni olmaktadır. Kapitalist gücün işçinin özel zamanı üzerindeki müdahalesi emek ve sermaye arasındaki sosyal ilişkileri dönüştürmektedir. İş ve özel yaşam arasındaki zamansal ve mekânsal sınırların ortadan kalkmasıyla, işçinin kendisi ile işi arasındaki ayrışma muğlaklaşmakta ve neredeyse ortadan kalkmaktadır.

Anahtar kelimeler: Emek süreci, Mobil Çalışma, Telekomünikasyon Endüstrisi, Emek Kontrol Rejimleri, Türkiye

Introduction

In the work of Braverman (1974), the labor process is defined by social conditions under which the labor process is shaped again and again. However, in the literature, labor process analyses remain stuck between totalizing explanations and complex and interrelated layering of social experience (Thompson, 1990). Hence, the criticism of determinism by Braverman has a specific importance for understanding the practice of late-capitalist countries such as Turkey.

This paper aims to contribute to the discussions of labor process for it revisits Braverman's analyses by considering mobile workers in telecommunications operators in Turkey as a case study. In this contribution we take the labor process not as a technical, a historical phenomenon, but rather as a process that is defined by social conditions under which the labor process is reshaped.

As part of the dissemination of flexible forms of employment in the 2000s, as the information and communication technologies (ICT) developed; mobile working has become more common in Turkey. Capital in Turkey prefers mobile working as it serves to increase productivity and reduce the turnover time of capital. This paper explores Telecommunication Industry workers in Turkey as a case study on control regimes associated with mobile working. We discuss the mobile working labor process through the following dimensions: hybrid control regimes, subsumption, skilling/deskilling, external variables of labor process, identity and new forms of control.

As a part of ICT sector, the telecommunications industry is critical because the industry has significant impact on increasing integration of Turkish capitalism to the international capitalist system. The Telecommunication industry supports all other sectors via enabling the utilization of communication and information sources that speed up the movement of capital; hence reducing the turnover time of capital and also increased control over the labor process. Furthermore, the telecommunication industry is worth considering as it expands knowledge and information networks and removes spatial boundaries for information diffusion. On this basis the telecommunication industry has a unique and privileged position in transforming working conditions and forms of control. The wide usage of its products and services by capitalists is removing spatial and temporal boundaries between working time and private time. The telecommunication industry also contributes to the formation of hybrid forms of labor processes in the related sectors. Therefore, the telecommunications industry has a significant impact on the labor process in the industry itself and also other industries and understanding its dimensions, related to the constructs of the labor process, is part of the basic motivations of our discussion.

While workers within the telecommunications industry represent a polar condition, since they have certain positive predispositions to mobile working arrangements, this case also represents a general condition as Turkey, being a general example of a late capitalist country, helps us to generalize our results in other locale with similar characteristics. By revisiting Braverman's analyses of the labor process that calls for a social approach, this paper aims to contribute to discussions of the labor process and explores the new forms of employment from the perspective of labor processes in the mobile working era of telecommunication workers in the Turkish telecom industry. Our study is also expected to contribute to the labor process studies in Turkey, which are largely neglected.

Theoretical Background

Rethinking H.Braverman

In the discussion of the mobile working labor process our starting point is the work of H. Braverman (1974): “*Labor and Monopoly Capital - The Degradation of Work in the Twentieth Century*”. Braverman is generally cited in a critical way in labor process literature. We think, however, that after 40 years since his work was first published, this is an unfair treatment of Braverman. In those debates on Braverman’s works, the relationship between his overall theoretical framework and the labor process is disregarded and these two are generally analyzed separately. Such treatment reminds us of the distinction made by Thompson (1990:113) between totalizing explanations and complex and interrelated layering of social experience.

Braverman’s work should be evaluated by considering the overlaps between social and technical dynamics. Without such dual level analysis we could have called Braverman a crude empiricist. However, in Braverman’s analyses, we can see the inter-linkage between the labor process and capitalist accumulation/exploitation simultaneously. Even though critical works evaluate him as deterministic, Braverman uses a language that makes this criticism unfair:

Marx did, of course, give a position of primacy to the “means of production” in social evolution. But this was never conceived as a simple and unilateral determinism which causes a specific mode of production to issue automatically from a specific technology. Such a determinism is false to history in general, and particularly useless in confronting revolutionary and transitional epochs, with which Marx was especially concerned (Braverman, 1974:13).

Braverman’s criticism of determinism has a specific importance for understanding the Turkish practice, as will be seen below. There is a need to analyze the labor process within the multiplicity of social relations in which the labor process exists. Braverman states that the reality that is analyzed through the lens of social relations is not a chemical reaction, but more importantly a product of historic process:

Social determinacy does not have the fixity of a chemical reaction, but is a historic process. The concrete and determinate forms of society are indeed “determined” rather than accidental, but this is the determinacy of the thread by-thread weaving of the fabric of history, not the imposition of external formulas (Braverman, 1974:15).

When Braverman claims a social analysis that is different from a chemical reaction, he wants us to see the linkage between capital as a social form and the

technical operation of the organization of production. However, what determines the labor process is the social relations created by capital:

Within the historical and analytical limits of capitalism, according to Marx's analysis, technology, instead of simply producing social relations, is produced by the social relation represented by capital (Braverman, 1974:14).

The Labor Process is Not Only Techno

In light of the analysis developed by Braverman that is based on the simultaneous consideration of social and technical processes, it is significant to link the labor process with the capital accumulation process and analyze capital accumulation by starting from the social relations in which capital accumulation takes place. Capital is not only a social but also a technical phenomenon, having the ability to re-shape society according to the needs of accumulation. The labor process and the history of the labor process as socio-technical phenomena:

...is bound up with both the development of the productive system (or the modes of organization of production) and of the movement of capital (movement of accumulation and movement of valorization of capital); and also with the rise of forms of division of labor whether within the collectivity of workers (simple labor/complex labor, division of labor as different kinds of activity etc.) or within social relations (mental labor/manual labor etc.) (Palloix, 1976:46).

Considering the points made by Braverman and Palloix together we can say that the labor process has, recently, mostly been analyzed as a technical process. The source of such an effort is not Braverman but the social scientists that approach the labor process as an academic-technical process. Braverman makes his position clear against such criticism:

Marxism is not merely an exercise in satisfying intellectual curiosity, nor an academic pursuit, from that point of view of the value analysis of the composition and social trends within the working population can only lie in precisely how well it helps us to answer question about class consciousness (Braverman, 1976:122).

Critics of the Stage-based Approaches: An Overgeneralized Analysis of the Labor Process

At this point we can identify our divergence from the two labor process-thinkers that we refer to above. When we look at the reality within Turkey, in terms of the labor process and class-consciousness, it appears that the common problem shared by Braverman and Palloix is their stage-based approach. It is not only these two writers but also other researchers' of the labor process who share a stage-based approach. In the stage-based approaches, analyses are developed with reference to

a society that has passed through stages such as moving from competitive to monopoly capitalism; from Fordism to neo-Fordism; from formal subsumption to real subsumption; from absolute value to relative surplus value. Accordingly, the labor process is shaped according to the defined stages; and thus control of labor, degradation of work, discipline and resistance are being defined completely in line with the conditions which these stages involve:

In relation to this concern with the totality of capitalist production Braverman is centrally concerned to grasp the interrelations of the whole complex of features which appear to characterize 'monopoly capital': the rise of oligopolistic competition among giant corporations; the process of rationalization of production; the elaboration of the administrative apparatus of corporate capital; the encroachment of capitalist commodity production into enclaves of non-capitalist production; changes in the character and composition of the industrial reserve army; and the consequent relationships between the modes of organization of the labor process in different sectors (Elgar, 1979).

Hybrid Capital Accumulation and Hybrid Control Regime on Labor

The epistemic fallacy shared by such labor process analyses is that after introducing some stages they move concrete relations to a more abstract level by overgeneralizing them. While these stages should become an intermediary between the abstract and concrete levels, by involving the inner-connections between these two levels, abstraction is, instead, replaced with stages.

The labor process is technically: “a process by which *raw materials* or other *inputs* are transformed into *products* having a use-value. The labor process is a combination of three elements:

- human activity, or *labor power*,
- *the object* (raw materials) upon which labor acts,
- *the means* (tool or machinery) by which labor acts” (Palloix, 1976:46).

Each of these components of the labor process is socially linked. In this respect two variables are especially important: (1) from where and under what conditions the labor power is recruited; and and, (2) whether the labor process is labor-intensive or capital-intensive. The reason for our focus on these two variables is that in late capitalist countries such as Turkey procurement of a labor force is linked to the continuous dissolution of peasantry and artisanship. Further, since capital-intensive production depends on the level of capital accumulation, labor-intensive and capital-intensive labor processes can coexist. Here we do not argue for the continuity of an agricultural society; the issue is the supremacy of capital. Since *circuits of productive, commodity and money capital* have an uneven development in individual sectors, we can observe various labor processes, labor

control forms and more importantly various forms of labor skills. As well, we can observe different labor control regimes and the skilling/deskilling of the labor force at different historical stages that are defined by labor process thinkers. In Marx's terms those thinkers are attentive to "how capital *produces*, but not how capital is itself *produced*." How capital reproduces itself will be determined by the social relations in which the technical components of the labor process exist. When a specific historical development of a society, such as in Turkey, unites with the dominance of capitalism on a global scale, the labor process takes on more hybrid forms:

The capitalist mode of production must be made and remade, not just at the level of economic relations but also at the intimate level of power relations affecting the body, habits, and subjectivity of the worker. Furthermore, by deriving abstract labor solely from the commodity form, they present it as a deed already accomplished with the emergence of commodity production, thus overlooking the antagonistic relations internal to the social production of abstract labor (Read, 2003: 75).

At this point another dimension emphasized by Braverman becomes crucial to this study: the distinction between formal and real subsumption.¹ The use of a labor force in countries such as Turkey where 25-30% of the population live in rural areas will be related to the dissolution of the rural population. Therefore, the attributes of such a labor force will determine the form of control and capital intensity. As long as the aim of capital is re-valorization, all of its efforts towards real subsumption will transform the general, social and technical organization of the labor process. In societies where capitalism is developing the two different forms of subsumption will be used simultaneously. These differences will show themselves as hybrid forms of labor control, depending on the uneven development of productive, commodity and money capital as internal components of capital. For example, in the process of integration to international money circuit, rising indebtedness of individual capitals in the form of foreign exchange will bring about the simultaneous inclusion of more capital-intensive production and dissolved rural labor within the same labor process. We can see this situation in Turkey's mining and construction sectors explicitly. Such a hybrid labor process is also highly related to symbolic value relations. Forms of labor control can display variations in recruitment, skill acquisition, deskilling and division of labor in the work process. The most challenging problem created by this hybrid reality of the labor process is the simultaneous existence and viability of relationships or forms of control that are empirically significantly different from each other. Hence, from

¹ Absolute and relative surplus value correspond to two distinct forms of subsumption (subordination) of labour under capital: the form of absolute surplus value refers to the formal subsumption of labour while real subsumption of labour under capital is developed through production of relative surplus-value (See Marx and Engels, 1989).

the point of view of the social scientist or political movements, the main problem is to demonstrate how the above-mentioned abstract mechanism of capital accumulation becomes concrete in critical industries.

The Labor Process is Highly Dependent on External Social Dynamics

When the labor process is analyzed from the perspective of social dynamics, as quoted above from Braverman, in the processes of capital accumulation and industrialization, the labor process is not only endogenously determined but also affected by a number of exogenous factors that determine supervision, control and intensity of work. Hence, one needs to also consider external variables in the analysis of the labor process within the studied industry.

Under the current conditions the rising intensity of the labor process can be explained by the hegemonic nature of capitalist social relations which forces workers to accept the poorest working conditions, conditions that may be a threat to their health or even their life. In other words, a significant part of the control over labor is established due in part to external variables. One of these external sources of control is the financial debt load of laborers (bank loans taken out in order to supplement their income) that forces them to accept, without resistance, all the conditions of the labor process. Therefore, workers' futures are subordinated through the borrowing (credit) mechanism of the circuit of money capital as the most abstract operation of the capitalist system. From a theoretical framework, this means that the three circuits of capital (productive, commodity, and money) have an impact on the labor process at different levels. In this respect, in particular the growth of technology-intensive productive capital gives birth to new forms of control over the labor process: for example, a more subtle form of control appears via the extension of work time in to the social time of workers, removing spatial and temporal boundaries. Therefore, we can argue that capital-intensity directly affects the labor process along with its general effects on the reduced turnover time of capital, realization (e-trading) and revalorization as the intrinsic characteristics of the accumulation process. This observation is not only valid in the services sector but also within the mining and construction industries. For example, while on the one hand procurement of a labor force within the Turkish mining industry has been wholly based on a traditional clientelistic relationships and control over labor in the work process is established via "the *dayıbaşı* system", on the other hand "*dayıbaşı*" organizes the recruitment of the labor force by intensively using mobile phones.² This indicates the simultaneous existence of hybrid forms of control regimes. As Lowry and Moskos (2005) state, "the mobile phone leads to an acceleration in the metabolism of the organization".

²*Dayıbaşı* is a person who employs and directs the labor of temporary or migratory laborers, especially for seasonal agricultural work.

Overall, different combinations of variable and constant capital lead to the existence of hybrid forms of labor control. The hybrid control regime simultaneously involves a series of intrinsic mechanisms of control that are both technical and value intensive.

In late capitalist countries such as Turkey, during the initial phases of industrialization and then the external opening of capital accumulation, that structural competition becomes critical, state interventions constitute a legal framework of serial regulations that strictly surround the labor force. Under these conditions the state can issue regulations, going as far as banning strikes – the basic right of the worker – by claiming strikes threaten national security; it can regulate work (labor) relations in a way that will increase labor time; or the state can issue direct regulations to create more resources for construction, mining and telecommunication industries.

Capturing the Prosperity of Concrete Examples in Industrial Differences

As stressed above the most challenging problem caused by this hybrid reality of the labor process is the simultaneous existence and viability of relationships or forms of control that are empirically significantly different from each other. Hence, from the perspective of the social scientist or political movements, the main problem is to show how the above-mentioned abstract mechanism of capital accumulation becomes concrete in present day cases, by providing different examples selected from different fields.

In the discussion of such variations in labor control we chose a capital-intensive area, mobile telecommunication, as being one of the most dynamic industries of capitalism. In Turkish capitalism mobile telecommunication represents an industry with hybrid forms of labor control, accompanying the changing composition of capital between live and dead labor and consequent changes in social relations. In the analysis of the telecommunication industry that serves to accelerate valorization of capital and decrease the turnover time of capital we need to consider the industry both in terms of its intrinsic labor process and its impact on labor processes within other industries. Being capital intensive the telecommunication industry has a unique and privileged position in transforming work conditions and forms of control as the wide usage of its products and services by capitalists is removing the spatial and temporal boundaries between work time and private time and furthermore between work and life.

The Concept of Mobile Working

By the introduction of new technologies new forms of work organisation and work-arrangements arise that cause changes in work-life, life quality, well-being and work-life balance of employees (Yıldırım and Ansal, 2013). One of the most

important changes in work organisation has been the increased flexibility in the assignment of tasks or deployment of personnel usually referred to as 'functional flexibility' (Huws, 2006) also causing work intensification (called "pressure cooker crisis") in the organizational life cycle (Wheelen and Hunger, 2008) and inclusion of the employees tacit knowledge without any additional rewards (Huws, 2006).

The ICT allows the creation of new organizational models such as cyber team, mobile/remote working and telecommuting. Mobile working takes place as a method of working which utilizes location-free usage of mobile technologies and mobile devices (smartphones, phablets, tablets, laptops and notebooks etc.) for work purposes, in a flexible way (Chartered Institute of Ergonomics and Human Factors, 2017). Mobile working is closely related to flexible working and, in previous decades, it was used as a synonym for teleworking. Teleworking was defined as performing work in multiple locations such as customer sites, company offices, their homes, vendor offices, planes, and hotels (Richman, Noble, & Johnson, 2002).

In this context this paper focuses on one of the new forms of employment, particularly on mobile working, in the capital intensive ICT sector that is mobile/remote working. With the aim of contributing to the discussions of the labor process we revisit Braverman's analyses by considering mobile workers in telecommunications operators in Turkey as a case study.

Remote working through the use of mobile devices has been judged in diametrically opposed ways by its proponents and its opponents. Accordingly, mobile working should be discussed as leading to either less hierarchy or enhanced control; Happier, motivated, free worker or 'digital panoptic on' and skilling or deskilling. As a result the two most praised things about mobile phones become also the source of criticism: ease of accessibility, and contact with others (Lowry and Moskos, 2005).

In the discussion of mobile working in the context of Marxian theories of the labor process, the starting point is that the essence of the capitalist production process is the increasing control of capital over the labor process. Capital's need for control is accompanied by the changing ways of work organization. Mobile working serves capital by new subtle ways of control.

In accordance with the diffusion of mobile technologies, we observe the growing number of mobile workers in a large number of industries. This observation is valid for both advanced capitalist and late capitalist countries. Also, according to the IBM mobile working experience survey with remote workers from 29 European countries, there is a wide distribution in the amount of time spent away from the office³ and the number of employees working remotely has an accelerating trend (IBM Business Consulting Services, 2005).

³15% spend more than 3 days per week; 24% 1-3 days per week; 41% 1-3 days per month; 20% less than 1 day per month.

Remote working via the use of mobile technologies leads to the temporal and spatial reshaping of new forms of work organization and work behavior (Lowry and Moskos, 2005). Also, Palloix (1976) points out that automation leads to deskilling, reduction of the turnover time of capital and the machine pacing of labor. This implies that mobile working needs to be discussed in terms of its effect on the form and degree of control over the labor process (intensification of the work process); skilling/deskilling of the labor force; and the resultant implications for the exploitation and resistance of mobile workers. This discussion is timely since accompanying the developments in mobile technologies capital is expected to increase the use of mobile working in terms of the size of employment and industrial diversity.

The context of mobile working: The ICT Industry in Turkey

For a discussion of the labor process and new types of employment in the ICT sector in Turkey there is a need to shed light on the linkage between the labor process and overall capital accumulation. This also requires the consideration of social relations of capital in the country. On this ground understanding the role of the ICT sector in the stage that capital accumulation has reached today will give insight into the changing work conditions and possible long-term implications for labor within this sector. Therefore, we can focus on specific characteristics of the ICT sector that distinguish it from other sectors such as mining and construction where pre-capitalist relations of work prevail along with capitalist relations of work.

In the ICT sector, as a capital-intensive area, subtle forms of control, real subsumption and the need for skilled labor for relative surplus value production come to the forefront. Given that the ICT sector leads to increases in “productivity” in all other sectors that employ these technologies, the ICT becomes another factor that contributes to the formation of hybrid forms of labor processes in related sectors such as construction or retailing.

The circuits of productive, commercial and money capital in Turkey have been increasingly integrated with the international accumulation process since the 1980s. At the current level of accumulation Turkish capital aims to achieve higher profitability under intensifying international competition via relative surplus value production particularly in higher-value added manufacturing and service industries. At this point ICT becomes critical for the structural transformation of the Turkish manufacturing industry. The shift to relative surplus production and increasing production in high value-added sectors require the application of ICT in the production process. Moreover, the development of ICT stimulates all other sectors via communication and information sources.^{4 5}

⁴ Some of the ICT-related sectors are as follows (YASED, 2012:4): Manufacturing (Automated manufacturing, remote warehouse management, e-procurement); Retailing

As a late capitalist country the ICT industry is strategic in Turkey, not only in a typical sense but also because the use of ICT in production reduces the turnover time of capital, enhances control over the labor process and plays a part in the accelerated integration of Turkish capitalism into the process of international capital accumulation. However, the ICT sector is relatively small in Turkey in terms of its share in GDP. In 2005, the share of information technologies in GDP was 0.8%⁶⁷ while the share of telecommunication⁸ in GDP was 3.3%. Seemingly, the telecommunication industry dominated the Turkish ICT sector with a 71% share as of 2012 (See Figure 1).

(Inventory tracking with RFID, Inventory management, POS Systems); Transportation (remote vehicle tracking systems, fleet and route optimization); Energy (smart meters and networks); Health (Health management systems, remote health control); Finance (banking and payment systems, online transactions); Real estate and construction (Network and facility construction and management); Professional support services (Education; call centres, consultancy etc.); Media and advertisement agencies; Wholesale and retailing distribution (Communication points of sales; techno-markets and consumer electronics retailing; hardware distributors, SIM cards and device distributors).

⁵Besides the potential to increase the responsiveness of Turkish firms, modernization of the public sector is also frequently linked to the use of ICT products and services. The process of “digital transformation” in public services is targeting to reduce public spending (Republic of Turkey Ministry of Development, 2015), reducing financial “constraints of the state” and increasing “efficiency” in public services. Moreover, despite being at a low level, the rising public ICT investments support the ICT sector as a significant source of demand in Turkey.

⁶The IT sector has been traditionally capital intensive and mainly dominated by a few large multinational distributors and their small to medium scale enterprises as direct and indirect partners. As a technology consumer country, hardware sales dominate the IT sector with a share of around 75%. On the other hand, in the software and IT services, as of 2010, there were only 5 to 10 domestic and international firms with sales revenues exceeding 100 million dollars (YASED, 2012), creating a potential area for consolidation for scale economies (YASED, 2012).

⁷ For the reasons for the small size of the IT sector in Turkey see Republic of Turkey Ministry of Development (2015) and YASED (2012).

⁸ The liberalization process in the Telecommunication Sector started in 2000 with the establishment of the TurkeyLGL Telecommunication Board. In 2004, the sector was opened to competition and in 2005; the state monopoly was ended with the privatization of Turkish Telecom via the sale of its 55% shares. In the area of mobile communication private firms started to operate in 1998 under two licenses as Turkcell and Telsim (later acquired by Vodafone). Two additional licenses were issued together with the 3G frequency centers to Aria and Aycell in 2008, which later merged to become “Avea” as the third player in the mobile sector. Today, three mobile operators are active in Turkey, namely Turkcell, Vodafone and Avea.

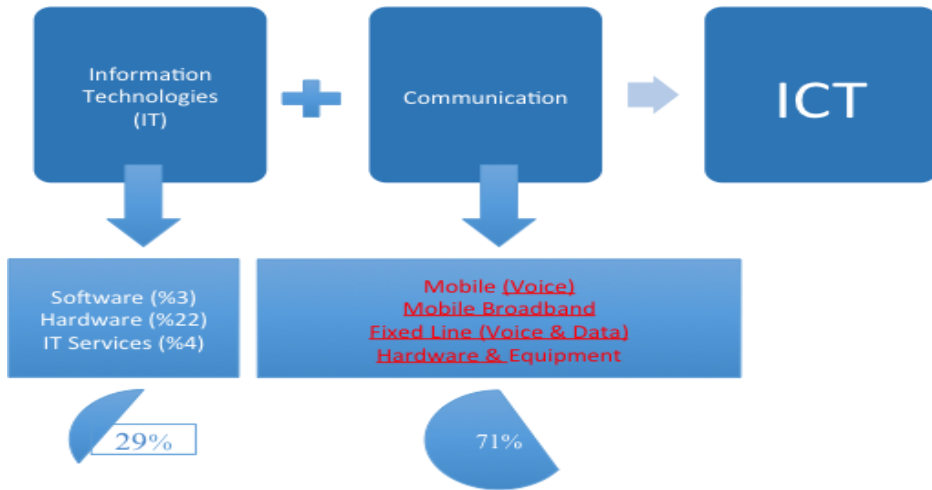


Figure 1: Locating Turkish Telecommunications Industry
 Data source: YASED (2012)

Discussing the Labor Process in Mobile Working: The Case of Telecommunication Workers in Turkey

For the examination of mobile working labor processes, we utilized the empirical findings of a previous research (Yıldırım and Ansal, 2013) that was conducted on the perceptions of employees on mobile-technology usage for work purposes (mobile working) in the Turkish telecommunication industry (For the details see Attachment 1). Additionally, we have presented above a general overview of the ICT Industry in Turkey to provide a framework for the external variables and structural determinants of the labor process within this industry.

In the following sections, using the findings of the referred study and the analysis of Turkish ICT industry, technical and social aspects of the labor process within the mobile working mode of telecommunication workers in Turkey are addressed in light of the theoretical discussion. Then, as Figure 2 shows, the study outline focuses on the theoretical and practical status of mobile working in terms of hybrid control regimes and subsumption, identity, technology acceptance/resistance, new forms of control, skilling/deskilling and external variables of control over the labor process.

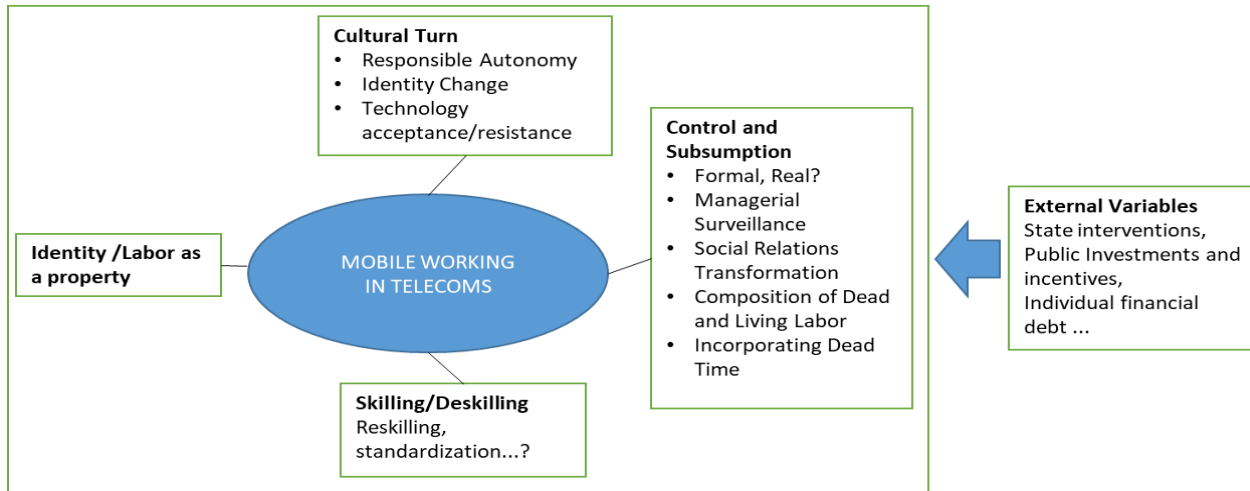


Figure 2: Study Outline

Control and real subsumption

What is critical about mobile working is that it involves a hidden form of control which also allows the real subsumption of labor. Mobile working among telecommunication workers seems to provide relative autonomy for workers in the labor process. However, in the post-industrial era where the complexities of work is analyzed by power structures and social relations at work (Shalla and Clement, 2007), the intervention of capitalist power into workers' private time and the transformation of social relations between capital and labor is visible in the telecommunications industry as a control regime.

The changing organic composition of dead labor (embedded in the production tools and equipment) and living labor causes hybrid control regimes that include both conventional and technology-intensive labor controls. In the Telecommunication industry dead labor is intensively used in mobile working through frequent usage of hardware and network infrastructure.

Especially in capital-intensive industries like telecommunications, technology-intensive capital increases control over the labor process in more subtle ways. In the case of mobile working increased control is established by expanding the working time into the social time of workers which removes spatial and temporal boundaries. Workers overcompensate for their physical absence by working longer hours and making themselves more available to colleagues (IBM Business Consulting Services, 2005). Therefore, though the hierarchy appears to be reduced (which nullifies closely-supervised intensive control) and control is removed from organizational context, control of labor and supremacy of capital is internalized via technology and values.

Two aspects of mobile working serve to enhance control over the labor process and thus accelerate surplus value production: "Rising managerial surveillance (surveillance without time and space constraints)" and "intensification of the labor process". The rising surveillance and intensified labor process is facilitated thanks to the following opportunities that mobile working brings for capital: Firstly, mobile working leads to a spatial and temporal expansions of the work realm. It allows for the inclusion of time and space beyond the office into the labor process, causing some to argue whether mobile workers are becoming 7/24 slaves, which may become a concern to be especially noted for late capitalist countries with high rates of unemployment. In the findings of Yildırım and Ansal (2014), telecommunication workers face the challenge of increasing time pressure due to increasing expectations of responsiveness for work.

Secondly, mobile technologies are utilized to enhance control over labor. "Mobile devices allow monitoring and continuously reaching workers and evaluating their performance" and "... management uses the control abilities of machinery" (Edwards, 1979). As the findings of the study on mobile working in the telecommunication industry (Yildırım and Ansal, 2013) reveal, workers

expressed their concerns about being kept responsible of reading and responding to messages (transmitted through mobile devices they use for work purposes) within a specific time frame. Like all productive forces, technology embodies relationships between people and determines the relations between social classes. As Marx⁹ stated, a machine, which does not serve the purposes of labor, is useless. In addition it falls prey to the destructive influence of natural forces.

Thirdly, mobile working leads to the further alienation and isolation of workers, thus eroding the base for collective resistance. Mobile workers find it difficult to work isolated from colleagues (IBM Business Consulting Services, 2005) and they experience further alienation. Moreover, this form of working reduces the opportunities for the development of collective resistance against the dictates of capital. The worker is atomized, making her lose the potential for solidarity found within a traditional workplace (Felstead et al., 2005).

Identity - Labor as Property

In the mobile working environment of the telecommunications industry labor is open to the question as to whether it is a “property” of the worker. Almost half of Telecommunication workers see their mobile devices as serving a bodily function for them, showing the intense usage of and addiction to mobile devices for work (Yıldırım and Ansal, 2014). As well, these workers do not have a full control over the usage of mobile devices, and mobile technology act as an agent of labor control which occupy their “unpaid” private time via mobile working. As perceived by mobile workers in the telecommunications industry, with the removal of temporal and spatial boundaries between work and private life, labor power seems to be the “whole worker” rather than being a part of her. The inclusion of private time and place in work challenges the worker in dividing her existential self from the commodity labor power that she possessed when entering employment (Thompson, 2009). Internal division of the worker between herself and her work began to be blurred and duality almost disappeared.

New Forms of Control and the Cultural Turn

Alternatively, mobile working caused a cultural turn that reshaped workers’ identities through the removal of hierarchy and bureaucracy and through personnel empowerment that led to responsible autonomy away from close supervision and technical control. It can clearly be observed that telecommunication workers developed self-discipline, making their labor process perception indeterminate and causing them to “buy into” the control system willingly, being persuaded by and committed to “autonomy-giving” organizational structures and systems as a result of cultural change (Barker, 1993; Sewell, 1998). In the case of telecommunications

⁹ For Marx’s original view we may refer to *Das Kapital-I* (Marx, 1976: 645); for a detailed discussion of the issue in the Indian case see Raju (2012).

workers in Turkey most of the workers think that it would be hard for them to do their job without a mobile device (Yıldırım and Ansal, 2014). These workers are persuaded of the “necessity and benefits” of mobile working by the systematic convergence in utilization of ICT in controlling work and the worker. This is largely due to the fact that mobile devices are also extensively used for personal purposes. Hence capitalism (*or* the capitalist) uses the “personal technology acceptance” as a leverage in constructing mobile-technology based labor control regimes. As capitalism is a social form which appears as “natural, inevitable and eternal”, the telecommunications workers have positive perceptions on the usage of mobile technologies for work purposes and feel that “the devices are like a part of their body”. Though they feel the pressure of new forms of control on the labor process, their continuous “virtual” existence in the workplace does not lead to a reaction or resistance to these control regimes.

Skilling/Deskilling

Rising managerial surveillance may end up deskilling workers by reducing their autonomy. Yet, associated with the dissemination of ICT, there are two more issues that need to be highlighted in regard to skilling/deskilling. The use of ICT in mobile working requires a skilled labor force. The mobile worker therefore has to develop her skills in the use of new and developing technologies. However, given the continuously changing technologies, the mobile worker has to adapt to the rapid changes, “developing her human capital via life-time learning”. The labor force needed be creative, adaptable to multiple tasks and substitutable, in short, flexible.

There are two outcomes that follow: Firstly, the process requires the standardization of the skills needed to work with mobile devices so that workers could be substitutable. This leads to deskilling for existent mobile workers. Secondly, exclusion from education opportunities regarding the use of new technologies further contributes to social stratification.

Among the telecommunications industry workers resistance to regimes of labor control is weak due to the complex and hybrid control regimes that do not cause visible deskilling and job-insecurity threats (Thompson and Smith, 2009). In fact, job requirements in the telecommunications industry have evolved to “over-skilled” levels. Studies by Edwards (1979), Thompson (1990) and Littler (1990), which focused on the patterns of management control related to the workplace, the state, informal industrial relations and wider production regimes, concluded that “deskilling and Taylorism were not ‘laws’ of capitalist development” (Knights and Willmott, 1990). As a critic on Braverman’s “Labor and Monopoly Capital” for undervaluing the embedded nature of labor process in socio-cultural contexts, mechanisms and outcomes have to be considered for being operative in particular conditions. Braverman adopts a stage-based approach and builds his discussions on the basis of a specific stage which is monopoly capital. Moreover, he is not

familiar with the reality of late capitalist societies where hybrid forms of relationships do occur. In the telecommunications industry control of the labor process is excessively intended to apply intense competition between capitals that can result in pressure for reducing the costs of labor and the continual transformation of labor power, rather than deskilling workers. In the telecommunications industry case, the pressure to replace skilled workers with less skilled ones does not constitute a control tool, while continuous skill development needs and increase in work load act as a part of hybrid control over the labor process. On the other hand, due to the increasing need for higher-level skills, we observe intensely applied continuous training and empowerment programs in the telecommunications industries which result in a “social debt” for workers that also stands as an invisible control method.

For deskilling factor of mobile working Wacjman et al. (2007) argue that workers who can obtain information and advice regardless of time and location face the threat of remaining under-skilled, as just in time consultation replaces traditional training and the experience of problem solving. Similarly, in the study of Yıldırım and Ansal (2014), it is also shown that mobile working tools force telecommunication workers to stay in the information and process loop of work organization and plays a crucial role in the knowledge supply chain which can enable the supervisor to monitor and intervene in their actions.

External Variables of the Labor Process

According to Braverman’s approach, to analyze the labor process from a social perspective, in capital accumulation and industrialization processes, there is a need to consider external determinants of the labor process that affect supervision, control and intensity of work.

In this respect, state intervention comes to the fore. Rising public incentives and investment in the ICT sector is critical for Turkey. In official and industrial documents, ICT is indicated as lying at the center of innovation, competitiveness and economic growth (see Republic of Turkey Ministry of Development, 2015; YASED, 2012). Representatives of international investors in Turkey argue that a strong ICT manufacturing sector will contribute to “international competitiveness” in both manufacturing and service sectors (YASED 2012). They suggest that ICT inputs need to be domestically produced through forming agglomerations. Turkey is a net importer of ICT products. Imported high-value technology inputs contribute to the current high account deficits in the Turkish economy. If the ICT develops, the export-oriented leading sectors of Turkey that heavily use the ICT will also develop, YASED notes (2012). The simultaneous developments of the ICT and ICT-related sectors, given their significant contribution to the current account deficit, are expected to mitigate a foreign exchange scarcity in the country (YASED, 2012).

The development of the sector will also serve to create the work conditions/infrastructure necessary for remote overtime working. According to the Action Plan for Information Society (2015-2018) (Republic of Turkey Ministry of Development, 2015), the ICT offers temporally and spatially flexible employment opportunities for capital. A number of state investment subsidy programs that were announced in the early 2000s aim to facilitate the shift towards high-value added, high-tech manufacturing in Turkey (Ercan et al., 2016). The ICT industry demands sector-specific incentives since “2012-Investment Incentives Plan” did not include such incentives. According to the Plan, investments in the ICT sector could benefit from state supports if they met the criteria for strategic and large-scale investments. This restricted the number of firms that could access investment incentives (YASED, 2012). As a response, the state started to give specific supports to the ICT industry: the establishments of the Technology Development Regions (there were 43 as of 2011) and research & development incentives have been examples of this policy change (Republic of Turkey Ministry of Development, 2015). As this process increases capital intensity, it will also cause further dissemination of mobile working in the country.

On the other hand, the bank loans and financial debts of workers serves as an external tool of control on the labor process, regardless of mobile working. This is also valid for telecommunications industry workers.

Subsumption in the Mobile Labor Process

Taylorist control regimes, simple and technical control, are relatively weak control mechanisms on the labor process in the telecommunications industry. Hence the impact of subsumption is rarely observed in the telecommunications industry mobile workers. Additionally, as telecommunication industry jobs require combining muscle labor and brain labor in the labor process, real subsumption is rarely visible. However, real subsumption is evident in the existence of some control methods that are discussed in a few of the previous topics.

In the era of cognitive capitalism (Vercellone, 2007) the importance of capital in production processes increased and, with the occurrence of advanced IC technologies, the control of capital over the labor process was maintained. As a high-capital and technology intensive service industry the telecommunications industry demonstrates the patterns of cognitive capitalism rather than visible formal or real subsumption. Particularly with the use of mobile technologies for work, flexible working became an industry standard for controlling the labor process. Mobile working created a new form of exploitation, by forcing the worker to work all day.

It is widely discussed that the real subsumption of labor in cognitive capitalism has transformed itself due to the impact of information technology developments on the labor process of production and due to increasing importance of intellectual/intangible assets (Boutang, 2011). Hence further

discussion is needed for the position of intellectual labor in the telecommunications industry. Though the form of subsumption of labor has changed with knowledge and the communication era (and by mobile technologies), exploitation of labor survives by transforming itself (from labor force to inventive force) in high tech industries like telecommunications (Fuchs, 2012).

Technical work designs have been increasingly altered to enable mobile working as 'the forces of production'. In terms of 'the relations of production', covert struggle between workers and management over the contested work-life boundaries define the consequences of mobile working for mobile employees. In terms of 'the superstructure', work arrangements legitimize mobile work, creating a persuasive ideology at the workplace for making overtime work in personal times and spaces. The organizational ideology, with principles embodied in specific mobile work policies and practices, is enabling normative control of the mobile workplace and implicitly asking for employees' devotion. Over time employees become deeply embedded into and dominated by the 'always-on' ideology of mobile working. Normative control embedded into mobile work practices encapsulates mobile workers, stripping their independent private lives, implants a loss of autonomy as human beings and leads to a diminished value of life while not working.

Technical or Simple Control of Mobile Workers in Telecommunications Industry

To some extent, usage of mobile technologies for work purposes by the telecommunications workers can be given as an example of technical control (Edwards, 1979). Technical and administrative managers use the control abilities of machinery, as these mobile devices allow monitoring, the constant availability of workers and the ability to evaluate their performance. Though this new mobile working process does not perfectly match with a Taylorist control approach, it requires the discipline of being continuously connected (e.g. Fayol's management principles or Weber's bureaucracy), hence it can also be linked to simple control. Verifying Braverman (1974:194) that underlined the use of technology to transfer control over the labor process from workers to management, by using mobile technologies, continuous supervision of the worker became possible in the telecommunications case. Additionally, responsible autonomy is worth analyzing in the case of mobile workers, though it may differ by job or level of authority. Though lack of delegation, due to the continuous connection of the supervisor/manager to work, was not perceived by mobile workers in the telecommunications industry, there is still a space for discussion and a need for trend data.

Conclusion

The “information age” brings about new types of employment and work relations that brings new forms of control over the labor process. ICT strengthens capitalist subsumption; exploitation becomes veiled; work time becomes unlimited; job insecurity rises. Capital creates new opportunities for the organization of production and the labor process due to the developing technology under its command. ICT at the hands of capital, with the impetus of enhanced surplus value production, serve the intensification of exploitation both at the individual work site and on the global scale. Moreover, new hybrid patterns of employment reinforce subordination of labour. As an external determinant of the labor process, rising public incentives and investments in information and communication technologies serve to create conditions for remote working.

The telecommunications industry as a cognitive capitalism enables the use of mobile technologies for work and makes flexible working an industry standard for controlling the labor process. The form of subsumption of labor has changed and a new channel for increased exploitation is created with the adoption of knowledge and communication era of mobile technologies to work place.

The Turkish case indicates that mobile telecommunication represents an industry with hybrid forms of labor control: Changing organic composition of dead labor and living labor causes hybrid control regimes that include both conventional and technology-intensive labor controls. Increasing use of mobile technologies allows increased control over labor and hidden form of control, allowing real subsumption of labor.

Continuous skill development needs and in accordance increase in workload act as a part of control over the labor process. Mobile technologies enable workers to continuously stay within the information and process control loop of work organization. This facilitates almost real time supervision and monitoring of workers and also the immediate intervention of supervisors. Therefore, this form of control causes deskilling and acts as a barrier for reskilling by preventing workers from developing their own initiatives and skills for problem solving.

The intervention of capitalist power into workers’ private time is transforming social relations between capital and labor. With the removal of temporal and spatial boundaries between work and private life, the internal division of the worker between herself and her work began to be blurred and duality almost disappeared. Telecommunication workers become deeply embedded into the ‘always-on’ ideology of mobile working through normative control of mobile work practices. Capital intrudes on private lives by implanting mobile technology as a tool of control over the labor process.

However, perceptions of telecommunication workers on the usage of these technologies for work are positive, bringing “Voluntary acceptance” of current control regimes. The organizational settings which adopt principles embodied in

specific mobile work practices enable normative control of the workplace. Findings reveal that use of mobile technology for work purposes enables control of workers through consent rather than force. Also, in terms of 'the superstructure', mobile working is legitimized by work arrangements that create a persuasive ideology for unpaid overtime work in private times and spaces.

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Attachment 1:

In the referred study of Yildirim and Ansal (2014), a structured survey is carried out with 70 professionals (engineers, specialists and middle level managers) from 5 telecommunication and IT companies that are software or hardware suppliers to telecommunication industry in Turkey. Since these professionals are early adopters of mobile technologies, they constitute a reliable sample group who has significant experience in adopting mobile and other new information technologies. The survey questions are derived from the literature review and in the questionnaire 5-point Likert scale (1- Strongly disagree, 2- Disagree, 3- Somewhat agree, 4- Agree, 5- Strongly agree) is used. The questions are categorized under 14 different impact factors as shown in List 1. By using Cronbach's Alpha method, reliability analysis is carried out.

List 1. The impact factors under which the survey questions are categorized

- Factor 1 - Obligation for mobile device usage
- Factor 2 - Intensity of mobile device usage / Addiction
- Factor 3 - Usage in non-work hours
- Factor 4 - Taking initiative about mobile device usage
- Factor 5 - Impact on organizational coordination and information infrastructure
- Factor 6 - Impact on information management systems
- Factor 7 - Impact on organizational productivity and effectiveness
- Factor 8 - Impact on inter-organizational communication and customer relations
- Factor 9- Impact of accessibility on work load and time pressure with more roles/responsibilities
- Factor 10 - Impact on flexible working
- Factor 11 - Impact on meeting organization
- Factor 12 - Impact on motivation
- Factor 13 - Impact on stress and feeling under pressure
- Factor 14 - Impact on work-life balance

Findings of the survey revealed that:

- Job demands are strongly positively correlated to pressure that is caused by mobile work.
- For skill discretion, there is a negative relationship with pressure felt by mobile work, while it is positively correlated to mobile device usage intensity. This is one of the considerable findings pointing out that, though employees in jobs with higher skill discretion use mobile devices more intensely, they feel less pressurized.
- Job security negatively correlates with pressure that is felt due to mobile work.

- Additionally both of the two mobile work factors, Intensity of Mobile work and Perceived Pressure of Mobile Work are negatively correlated with Overall Work-life Balance.
- There are also strong positive relationships between Intensity of Mobile work and Perceived Pressure of Mobile Work and incursion of mobile work into private life.

