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MORITZ ALTENRIED AND MANUELA BOJADŽIJEV¹

VIRTUAL MIGRATION, RACISM AND THE MULTIPLICATION OF LABOUR

Digitisation has profoundly changed the spatial constitution and economic geography of contemporary capitalism, from the micro-architecture of production in a single office or factory, to the ways we buy, sell and consume goods and services up to global circulatory systems. Concerning the latter, digital computing has revolutionised and accelerated the logistics industry in a way that can be compared to the impact of the standard shipping container in the 1960s.² Shipping software, enterprise resource planning (ERP) systems, Global Positioning System (GPS), Radio Frequency Identification (RFID), and other digital technologies which organise, capture and control the movement of things, finance and people, are at the heart of contemporary logistics.³ Digitised logistics transform the spatial ordering of circulation and production; ports, harbours, corridors, special economic zones and other forms of logistical space are created and rearranged, new value chains emerge, others cease to exist. The digitised logistics of circulation accordingly constitute the space of global capitalism as relational, infrastructural, and changing dynamically.

This space is far from smooth and uniform, even if digital

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- 1 The article is based on a talk we gave during the conference “Diversity encounters”, held at Humboldt-University in May 2016, and organised by Humboldt-University in Berlin and the National University of Singapore. We would like to especially thank Sabrina Apicella for many discussions concerning the digitisation and mobility of labour.
 - 2 Cp. Moritz Altenried, “Le container et l’algorithme: la logistique dans le capitalisme global”, *Période*, 2016. Available at: <http://revueperiode.net/le-container-et-lalgorithme-la-logistique-dans-le-capitalisme-global/> [accessed February 20, 2017]; Rob Kitchin and Martin Dodge, *Code/Space: Software and Everyday Life*, Cambridge, MIT Press, 2011.
 - 3 Cp. Ned Rossiter, *Software, Infrastructure, Labor – A Media Theory of Logistical Nightmares*, New York, Routledge, 2016; Christoph Rosol, *RFID: Vom Ursprung einer (all)gegenwärtigen Kulturtechnologie*, Berlin, Kulturverlag Kadmos, 2007.

technology does create new connections and proximities. The metaphor of the 'digital divide' has served to mark the differing access to the internet by various vectors, especially in the Global South. However, internet coverage continues to include more and more people. In particular, through the growing speed and coverage area of mobile internet infrastructure along with the proliferation of smartphones and tablets. From the viewpoint of capital, these people are not only – in many cases not even primarily – attractive as consumers, but also as a huge pool of digital labour. The forms and strategies of tapping into this workforce range from mobile phone users in Kenya who collect and supply little pieces of data in exchange for air time, Venezuelan crowdworkers tagging photos, an army of content moderators in the Philippines deleting violence and pornography from social media, to Indian IT professionals carrying out remote maintenance of BMW factory software.

These processes change both the global geography and division of labour, as well as the patterns of mobility and migration. What we seek to understand, is how not only the mobility of things, but also the mobility of labour, is subject to deep transformations given the ubiquity of digital technology. While inherently connected to the mobility of things, labour power is a commodity unlike any other and its mobility has special qualities. Digitisation is an important factor of the contemporary transformation of labour and its mobility. Digital technology and infrastructure has changed existing jobs and created new ones and these changes come with spatial and temporal transformations, impacting the mobility of labour.

Two ethnographies have investigated the digitisation of labour in relation to the mobility of Indian IT workers. The practice of 'body shopping', described by anthropologist Xiang Biao, is one such important example of new mobility patterns due to digital labour. 'Body shops' are companies that recruit Indian IT workers and hire them out to Western corporations that can fill their (temporary) labour shortages with the help of this hypermobile and hyperflexible group. In his ethnography of those IT workers, Xiang maps the routes and connections between spaces such as Hyderabad, Kuala Lumpur, Singapore, Sydney, Berlin or the Silicon Valley, and the crucial role of migrant labour for the IT industry.⁴ Here, we do not only see a dynamically changing geography of mobile labour and digital circulation, but we can also understand how it impacts local social relations, in this case namely the traditional institution of dowry and

4 Cp. Xiang Biao, *Global 'Body Shopping'. An Indian Labor System in the Information Technology Industry*, Princeton/Oxford, Princeton University Press, 2007.

related gender relations.

Another important ethnography by Aneesh Aneesh investigates the circulation of data and labour power, including the Indian IT workers who stay in India but work for Western companies. In addition to the 'body shops' there is a variety of flexible and temporary models trying to match the factors of labour and infrastructure costs with demands of being on-site with the customers. Many Indian corporations have developed what is known as the 75-25 model, with a small office and some 25 per cent of the workers abroad and the rest of the workforce staying in India. These processes connect the Indian IT hot spots (and their own specific patterns of local and national mobility) with various other global sites in multiple and complex ways, adding another dimension to common outsourcing practices. As a result, it is sometimes difficult to determine what is actually moving: data, labour or both? Aneesh speaks in this context of "virtual migration". In his argument that seeks to "free the discussion of labor mobility from the confines of the body".⁵ he claims that the Indian digital workers who work for Western companies without leaving India "migrate without migration".⁶

Today, ten years later, the patterns described by Xiang and Aneesh continue to be important while the global geography of digital labour continues to be dynamic and changing. For example, the increasing importance of digital labour via crowdwork platforms and apps for mobile phones, allows the immediate outsourcing of digital labour directly to an increasing number of workers from all over the world. This is a factor in the further diversification of the structure and geography of outsourced digital labour and the emergence of new hot spots beyond the well-known locations in South East Asia.

The nature of IT labour, or the nature of its product, has a certain quality that complicates the demarcation between the categories of mobility of labour and the mobility of goods. By means of the internet, (a certain form of) data can be sent almost instantaneously, at a small cost and other friction over great distances. Networked infrastructures and software allow the global transmission of data in milliseconds so that, for example, different labourers can work simultaneously on the same project while being on two different continents. This of course concerns mobility patterns and challenges our understanding of migration and racism.

Far from striving for a comprehensive picture of these

5 Aneesh Aneesh, *Virtual Migration. The Programming of Globalization*, Durham/London, Duke University Press, 2006, p. 3.

6 Aneesh Aneesh, *Virtual Migration*, p. 2.

developments, we want to trace a few of these tendencies and emerging geographies and connect some existing analytical tools in order to better understand them. First, we take up the notion of ‘virtual migration’ and relate it to forms of digital labour beyond the case of Indian IT workers, namely to Chinese gaming workers, the so-called ‘gold farmers’. We discuss this as a particular form of labour in the gaming industry, also evoking questions about the implicit processes of racialisation in such forms of mobile digital labour. Moving on, we connect the entailed challenges to the concept of migration to the idea of the *multiplication of labour* as developed by Sandro Mezzadra and Brett Neilson,⁷ who offer a helpful approach to understand the complex and heterogeneous spatiality of global, not only digitally mediated, labour.

FROM OFFSHORING TO VIRTUAL MIGRATION?

The term ‘virtual migration’ and the developments it seeks to describe, once again challenge our notion and description of migration as a concept. We could argue that migration as a trans-border practice has somehow always conceptually challenged nationalist framings of research and theory, and since at least the debates on transnationalism in the early 1990s forced us to think beyond methodological nationalism. As Xiang has argued, “the subject of ‘migrant’ is to a great extent an invention by modern researchers and regulators created in order to understand migration from the perspective of nation-states, and particularly from the migrant-receiving countries’ point of view.”⁸ Of course, this notion of migration gets out of hand, when the “regulatory gaze moves away from the assemblages of activities that made the journey of migration possible to the single individual – the ‘migrant’”. This tendency becomes even more complex once mobile labour is dis-embedded from the actual movement across borders, as we argue here. Based on this understanding, we need to account for the heterogeneity of migration processes and go beyond the inclusion/exclusion binary. As Mezzadra and Neilson have so convincingly demonstrated, it calls for an understanding of the border as not (only) a concrete line between two nations, but as a productive and manifold machine that exists on multiple levels and produces variegated zones of mobility and immobility. Finally, the process we describe as virtual or digital migration, requires us to tie labour and mobility closer together when thinking about migration.

7 Cp. Sandro Mezzadra and Brett Neilson, *Border as Method, Or, the Multiplication of Labor*, Durham/London, Duke University Press, 2013.

8 Xiang Biao, “The Would-Be Migrant: Post-Socialist Primitive Accumulation, Potential Transnational Mobility, and the Displacement of the Present in Northeast China”, *TRaNS: Trans -Regional and -National Studies of Southeast Asia*, 2(2), 2014, pp. 183-199.

An obvious (and valid) question to the idea of virtual migration concerns the conceptual difference to outsourcing and offshoring. Aneesh anchors his claim of the difference of virtual migration to outsourcing and offshoring first and foremost in the new possibilities of spatial and temporal integration provided by digital technologies. While digital media technologies allow for a certain form of spatio-temporal integration and connection, we do not intend to construct a clear break between outsourcing or offshoring and virtual migration. In fact, the spatio-temporal integration and distance of globally-dispersed sites of labour and consumption have always been a question of infrastructures of circulation, which is why we opened the text with the recent interest in critical studies of logistics. From a certain point of view, there is little difference between airports, harbours and logistical corridors and internet infrastructure. Both infrastructures work towards a certain form of spatio-temporal integration of supply and demand of labour power. In this context, the term ‘virtual’ in both its commonsensical and theoretical associations, seems to be problematic at first glance. Looking at something like ‘virtual migration’ from the perspective of underlying devices and infrastructures such as personal computers, network cable, data centres to the materiality of labour and data, it is precisely this materiality and its relation to other forms of materiality that makes it special.

However, in spite of the maybe unfortunate word ‘virtual’, we can begin to emphasise both the materiality of digital communication and labour, as well as the complex nature and manifold relation of digital migration to forms of ‘offline’ migration and the circulation of goods in line with Aneesh’s concept. In the following investigation into the shadow economy of gold farming, we will stress further qualities which seem to be important for the concept of digital migration: This concerns amongst other things questions of the lived experience and subjectivity of digital migrants, closely related to racism and the racialization of labour, and questions of the socio-economic position in digital economies, especially in terms of legality.

GOLD FARMING, OR, THE PAST OF STEVE BANNON

Steve Bannon, the right-wing chief strategist of Donald Trump, once invested \$60 million in a business based on the labour of digital migrants. In 2006, Bannon convinced his former employer, Goldman Sachs, to invest this amount in a company called *Internet Media*

Entertainment (IGE).⁹ At the time, IGE was one of the most important actors in a shadow economy connected to massively multiplayer online role-playing games (MMORPGs) like *World of Warcraft*. *World of Warcraft* was – and still is – one of the most important of these games, with over seven million players at the time. This digital world, called *Azeroth*, is an impressive graphic medieval landscape of dark forests, vast plains, green hills, large mountains, wide seas, big cities and quiet villages inhabited by a multitude of human and magical creatures. Here the players kill monsters, explore the landscape, socialise and complete quests, thereby developing the skills of their avatars and accumulating gold and virtual goods in order to patiently advance through the game's levels. For those who lacked patience or time to do so, IGE had an offer: They sold gold, the in-game currency, for real money. On their site, they also offered virtual goods like weapons, clothing or even fully-developed characters so that players could begin in high levels. A player could even hand over his account for a few hours and get it back at any level they wished, in exchange for money.

Although officially forbidden by the game's publisher and frowned upon by many players, the trade of real money for virtual goods is a multimillion-dollar business. In 2006, IGE was its biggest player, with offices in Los Angeles, Shanghai and Hong Kong. Unfortunately for the investors Bannon had gained, they soon run into trouble. Players launched a class action lawsuit against the trading of in-game currency for real money, claiming it would “substantially impair” and “diminish” their enjoyment of the game. Beyond that, Blizzard Entertainment, the publisher of the game, started harsh measures against the practice of real money trade, making it even harder for IGE to sustain its profits. In the end, IGE's virtual currency business was sold abroad, the investment a failure, and the company restructured and renamed itself *Affinity Media*, running a number of gaming websites and communities. Bannon became its CEO, a post he held until 2012, when he became chair of the infamous Breitbart News.

Like IGE, the industry trading in virtual goods and currency, took a hit in these years. However, the business is still alive in *World of Warcraft* and other games. After running into legal problems like IGE, most Western platforms moved their operations to places where their supply was already coming from: Asia, especially China. Already in 2006, professional player-workers located in China provided the overwhelming majority of IGE's inventory. These digital migrants to

9 Cp. Julian Dibbell, “The Decline and Fall of an Ultra Rich Online Gaming Empire”, *Wired*, 2008. Available at: <https://www.wired.com/2008/11/ff-ige/> [accessed February 20, 2017].

the Western servers are commonly called “Chinese gold farmers”. Bannon had joined a company that was almost completely based on Chinese labour.

PLAYING/WORKING

The origins of the practice of gold farming, i.e. playing the game in order to earn in-game currency or virtual goods which are then sold to other players for real money, are hard to trace. There are reports of early individual farmers in the United States running up to 20 computers simultaneously in their homes. However, by 2006, major platforms got most of their supply from China. Here, the workshops range from informal groups of friends to professionalised digital factories, employing approximately 500.000 workers.¹⁰

A typical Chinese gaming workshop has 20-100 computers and around 50-200 workers who play in shifts, so that every computer runs 24 hours. While some workshops consist of groups of friends who try to make a living out of their hobby, most operate on a highly professional and disciplined level. The design of these digital factories often looks like a mixture between an internet café and other small factories in the same area. Some of the more professional workshops have uniforms, air conditioning and motivational posters on the walls, while others are characterised by old computers, shabby buildings and unbearable conditions due to the heat of the computers and cigarette smoke. In most smaller factories, the boss directs the gaming workers and conducts the business with the clients, whereas bigger factories tend to have supervisors controlling the gamers and a sophisticated division of labour. One worker describes his workshop to a gaming website:

“The first gold farming company I was in was really big; I guess that this company owned at least 10,000 gold farming accounts. In my workshop there were 40 people who took turns to farm, some in the daytime, some at night. So the accounts are used for farming non-stop for 24 hours a day, 7 days a week [...] every day I feel very tired. You can imagine, every day I need to do at least 10 hours farming. I’m always looking at the computer screen and always seeing the same

10 Richard Heeks, “Current analysis and future research agenda on ‘gold farming’: Real-world production in developing countries for the virtual economies of online games”, *Development informatics working paper 32*, Institute for Development Policy and Management, 2008. Available at: http://hummedia.manchester.ac.uk/institutes/gdi/publications/workingpapers/di/di_wp32.pdf [accessed February 20, 2017].

instance and the same mobs. So I feel very tired.”¹¹

Even if many of the workers are also enthusiastic players of World of Warcraft, farming is mostly a repetitive, boring and exhausting job, as farmers mostly use simple and repetitive functions of a game’s architecture in order to earn gold and virtual goods. Even for normal players, and especially in the lower levels, “the majority of the play involved in advancing a World of Warcraft character is mindless and repetitive to the extent that it verges on Taylorism” as Scott Rettberg notices in the *World of Warcraft Reader*.¹²

To start a workshop, one needs considerable capital, one needs computers, a good internet connection and a credit card/PayPal account and language skills in order to do business with mediating platforms like IGE or directly with Western customers. The composition of the farming workforce has changed over the years. Some workers of the first generation, mostly students who did the farming in internet cafés, started their own gold farming workshops that increasingly employed migrants from rural areas. Wei Xiaoliang, owner of a farm in Shenzhen is quoted in the *South China Morning Post* explaining that they “prefer to hire young migrant workers rather than college students. The pay is not good for students, but it is quite attractive to the young migrants from the countryside”.¹³ Some of the gold farmers have been actual farmers before they became labour migrants to the rural areas and virtual migrants to servers of World Warcraft. Ironically, the reasons for these internal migrants to come to the Chinese cities are often the loss of farmland to capitalist development projects, many of which are connected to the growing Chinese electronics industry, as Nick Dyer-Witherford and Greig de Peuter note.¹⁴

“PLAYING CHINESE”, OR, THE RACIALIZATION OF LABOUR

While many Western players use the services of gold farmers to advance through the game, the general culture of World of Warcraft is disapproving of farming, selling and buying gold for real money. It is

11 Nick Ryan, “Gold Trading Exposed: The Sellers”, *Eurogamer.net*, 2009. Available at: <http://www.eurogamer.net/articles/gold-trading-exposed-the-sellers-article?page=3> [accessed February 20, 2017].

12 Scott Rettberg, “Corporate Ideology in World of Warcraft”, in Hilde G. Corneliusen, Scott Rettberg and Jill Walker (eds.), *Digital Culture, Play, and Identity. A World of Warcraft Reader*, Cambridge MA, The MIT Press, 2008, pp. 19-38, here: p. 30.

13 He Hui Feng, “Chinese ‘Farmers’ Strike Cyber Gold”, *South China Morning Post*, 2005. Available at: <http://english.cri.cn/2238/2005-10-25/160@278526.htm> [accessed February 20, 2017].

14 Cp. Nick Dyer-Witherford and Greig de Peuter, *Games of Empire: Global Capitalism and Video Games*, Minneapolis, University of Minnesota Press, 2009, p. 145.

considered ‘spamming’ and ‘cheating’ and damages the ethos of the game, as well as its in-game economy by causing inflation. Hence, gold farmers are regularly attacked based on the fact that they work where others play. The activity of farming has become profoundly racialized within the space of World of Warcraft. Not all farmers are from China and there is a huge number of Chinese leisure players. However, in the terminology of the game ‘being Chinese’ or ‘playing Chinese’ has come to mean the activity of gold farming.¹⁵

As the physical body cannot serve as a marker for race within an online game, the main marker becomes a specific style of playing, or better: labouring in the game. In many cases, it is quite easy to spot farmers in the game as they often stay in the same lucrative spot and fulfil the same repetitive tasks in order to earn gold. Every avatar that behaves in a certain way that suggests it is not playing but working, or even only stays in spots in the game that are known for their farming possibilities, is potentially subject to racist attacks. In other games, whole classes of avatars have become “unplayable” because of constant attacks by other players after becoming associated with Chinese gold farming.¹⁶

Throughout the game’s landscapes, there is a constant racial profiling in order to differentiate between legitimate ‘leisure players’ and unwanted ‘player-workers’ who are represented as Asians, mostly as Chinese. Western players even form ‘vigilante’ groups in order to find and report, or kill ‘Chinese farmers’ – killing here means killing the avatar, making it harder for the player workers to do their work. The struggles in the landscape of the game and the Western players hunting Chinese farmers have characteristics of “a low-intensity resource war with echoes of ethnic cleansing”.¹⁷ Across various forums and websites, there are many conversations about where to find and how to report or kill gold farmers in the game, who are almost always portrayed as Chinese. Players have also produced a number of YouTube videos documenting the hunt of farmers and songs against ‘the Chinese destroying our game’.¹⁸ Thus, far from observing post-racial digital bodies in the game, what we can note is that race enters the space of the game in peculiar ways, one of which is based on digital workers

15 Cp. Lisa Nakamura, “Don’t Hate the Player, Hate the Game: The Racialization of Labor in World of Warcraft”, *Critical Studies in Media Communication*, 26(2), 2009, pp. 128-144.

16 Cp. Constance Steinkuehler, “The mangle of play”, *Games and Culture*, 1(3), 2006, pp. 199-213, here: p. 208.

17 Dyer-Witheford and de Peuter, *Games of Empire: Global Capitalism and Video Games*, p. 147.

18 Cp. Nakamura, “Don’t Hate the Player, Hate the Game: The Racialization of Labor in World of Warcraft”, pp. 134ff.

becoming virtual migrants of the online world of the game. Thus, racism, as Theo Goldberg has argued in his book, *Are we all post-racial yet?*, in which he sets out to conceptualise the globalisation of racism and its variations based on very concrete and heterogeneous spatio-temporal conditions, while urging us to observe how the resulting multiplicity of racism contributes to its mutation and reproduction, and to its limits.¹⁹

DIGITAL LABOUR/DIGITAL MIGRATION

These Chinese workers inhabit a strange double position. While they stay in their country of origin and belong to the emerging digital working class of the Global South, within the space of the game and its surrounding culture, they show almost all qualities of ‘real-world-migrants’. As digital labour migrants, they enter the space of the game as workers in a position different to the hegemonic culture of this space. Their labour is sold as a service to Western players and that is the same reason for attacks by other Western players. To work where others spend their leisure time is a common feature of migrant labour in a variety of ‘offline’ professions, for example in the service sector.

The labour of farming is illegalised and part of an informal economy. The only task of some workers is to hand over the gold to the buyer’s avatar or to attract new customers in the game, all without being detected by vigilant players or the gamemasters, Blizzard’s in game police. The behaviour of gold farmers is accordingly often likened to that of offline street drug dealers, a figure who almost always features as a migrant in most Western imaginaries.

The attacks on gold farmers by other players and the game’s publisher, have economic effects on the workshops, some of which had to be closed due to bans on accounts and IP addresses. For individual workers, the attacks also make the job harder, both emotionally and in terms of the daily quotas most workers need to reach. The material risks, vulnerability and the affective dimension of working in illegal or informal economies, are characteristics the digital migrants share with many of their ‘offline’ counterparts. A gaming worker, featured in a YouTube video, reports of his interactions with Western players, “if they know you are a Chinese farmer, they would say you have no right to be here or even attack you with no reason”. He goes on to plea directly to those players: “If you see a professional gamer in the game, I wish you can understand his job and give him a little space. He will be very grateful. He will not go to other spaces and disturb you. He only

19 Cp. David Theo Goldberg, *Are We All Postracial Yet?*, Cambridge, Polity, 2015.

needs a little space.”

The example of ‘Chinese gold farmers’ illuminates the role of race in the production of labour power and vice versa and here even more important the role of labour in the construction of race. An investigation into digital migration should then start with the border, take *the border as method*, in order to understand:

“the tense and conflictual ways in which borders shape the lives and experiences of subjects who, due to the functioning of the border itself, are configured as bearers of labor power. The production of the subjectivity of these subjects constitutes an essential moment within the more general processes of the production of labor power as a commodity. Once seen from this perspective, both the techniques of power that invest the border and the social practices and struggles that unfold around it must be analyzed with regard to multiple and unstable configurations of gender and race, the production and reproduction of which are themselves greatly influenced by the border”.²⁰

Likewise, the work by anthropologist Anna Tsing on supply-chain-capitalism is instructive in this respect. Through the figure of the supply chain it is possible to think of globalisation (and digitisation) not as a simple process of global homogenisation, but to account for the structural role of difference and heterogeneity in the mobilisation of labour, capital and resources. Racism, patriarchal relations, cultural discourses and practices of different localities tied together by trans-border economies are activated, mobilised and made productive in order to “make labor possible”.²¹ Digital spaces, such as online games, are not post-racial spaces, quite the contrary. However, in the absence of physical bodies, race needs to be reconstituted, and the relation to labour becomes especially crucial and visible. This process shows originary qualities of digital cultures as well as actualisations of historical racist constellations. There are, for example, surprising similarities of the anti-gold farmer rhetoric to racist stereotyping of Chinese laundry workers in United States in the 19th century.²²

20 Mezzadra and Neilson, *Border as Method, Or, the Multiplication of Labor*, p. 20.

21 Ann Tsing, “Supply Chains and the Human Condition”, *Rethinking Marxism*, 21(2), 2009, pp. 148-176, here: p. 161.

22 Cp. Julian Dibbell, “The Life of the Chinese Gold Farmer”, *New York Times Magazine*, 2007. Available at: <http://www.nytimes.com/2007/06/17/magazine/17lootfarmers-t.html?pagewanted=all> [accessed February 20, 2017].

FRAGMENTED GEOGRAPHIES AND THE MULTIPLICATION OF LABOUR

As a shadow economy served by digital migrants, the case of gold farming in online video games represents a new matrix of differential inclusion,²³ where the terms of offshoring and outsourcing are not sufficient in order to conceptualise the complex spatial, economic and social arrangements at play. Here, theoretical vocabulary of virtual or digital migration might be helpful to think further. If we use the vocabulary of virtual or digital migration, we are not arguing for a radical break from forms of outsourcing or offshoring. Rather, we see these concepts as additions in order to help us understand the current transformations of labour mobility enabled by digital technologies and infrastructures. In the same spirit, Mezzadra and Neilson propose to supplement the familiar concept of the division of labour through an understanding of the multiplication of labour.

The concept of the multiplication of labour is again thought of in terms of multiple borders that constitute fragmented, overlapping and unstable cartographies, questioning stable categories such as North/South or centre/periphery. The originary architecture and spatial quality of digital economies is an integral part of this “heterogenization of global space and the way it forces seemingly discrete territories and actors into unexpected connections that facilitate processes of production, dispossession, and exploitation”.²⁴ The figure of a rural migrant working in a digital gaming factory at the margin of Shenzhen as well as in the digital economy of World of Warcraft, is not only a ‘double migrant’ but also inhabits a complex economic topology. The site of the labour power, the site of labour, the site of consumption, and the site of the buyer, are at various disparate but overlapping levels, connected by the real-virtual economy of World of Warcraft, internet infrastructures, various forms of brokering such mediating platforms, payment systems and so on. These complex and fragmented spatio-technological formations correlate with multiple and fragmented figures of labour, and thus, we can argue, with multiple and fragmented figures of migration.

DIGITAL TAYLORISM AND DIGITAL MIGRATION

In the case of the ‘Chinese gold farmers’ the phenomenon of digital migration emerges clearly due to the shared lifeworld of the game, a space where most workers but also many players, spend the majority of

23 Cp. Mezzadra and Neilson, *Border as Method, or the Multiplication of Labour*, pp. 159ff.

24 Mezzadra and Neilson, *Border as Method*, p. 23.

their waking hours. However, we can find many other examples where we can not only observe economic and spatio-temporal integration, but also affective, social and legal forms of *integration and tension* that characterise digital migration. Well-known examples are call centres in India serving the United States. The temporal aspect becomes crucial, with local workers often being alienated from life in their own time frame. Customer contact via call centres is crucially also affective labour, it involves a complicated politics of language and accent, and call centre workers are frequently subjected to racial abuse by customers.²⁵ A main reason why the Philippines have recently overtaken India as the “call centre capital of the world” is that many Filipino workers speak English with an American accent; hence their physical location is not immediately obvious to customers who believe they are speaking to an American worker rather than a virtual migrant.²⁶

Another instantiation of the global circulation of digital labour is the case of content moderation for social media. In order to filter out violence, pornography, hate speech and other content deemed inappropriate, social media platforms need a huge amount of human labour as even the most sophisticated algorithms lack the cultural and contextual knowledge to completely take over this task. Content moderation is an extremely labour-intensive, politically-sensitive and crucial economic aspect of digital social media. Again, the Philippines have become a global hub for commercial content moderation, where tens of thousands of workers sort through the digital waste of social media.²⁷ The labour of cleaning predominantly Western social media includes an important affective component. Scanning up to 6.000 pictures or 1.000 videos per day, many of which contain brutal torture or even murder, racism and sexual violence, leaves emotional traces with many workers. Many Filipino workers who become digital migrants to especially violent sections of Western sociality, often report depression, sleeping disorders and affective and sexual problems.²⁸ In addition to offering relatively cheap labour, the Philippines have become a hub for content moderation due to its Spanish and US

25 Cp. Aimee Carrillo Rowe, Sheena Malhotra and Kimberlee Pérez, *Answer the Call. Virtual Migration in Indian Call Centers*, Minneapolis, University of Minnesota Press, 2013.

26 Cp. Vikas Bajaj, “A New Capital of Call Centers”, *The New York Times*, 2011. Available at: <http://www.nytimes.com/2011/11/26/business/philippines-overtakes-india-as-hub-of-call-centers.html> [accessed February 20, 2017].

27 Cp. Sarah T. Roberts, “Digital Refuse: Canadian Garbage, Commercial Content Moderation and the Global Circulation of Social Media’s Waste”, *Wi: Journal of Mobile Media*, 10(1), 2016. Available at: <http://wi.mobilities.ca/digitalrefuse/> [accessed February 20, 2017].

28 Cp. Adrian Chen, “The Laborers who Keep the Dick Pics and Beheadings out of your Facebook Feed”, *Wired*, 2014. Available at: <https://www.wired.com/2014/10/content-moderation/> [accessed February 20, 2017].

colonial and post-colonial history because of which it has a workforce that speaks (often American-accented) English, is predominantly catholic, and literate in US culture. It is precisely these histories that need to be foregrounded in the analysis the racialization of labour. ‘Ethnicization’ needs to be a crucial dimension but not in terms of fixed races. On the contrary, it needs to investigate precisely how ethnicity becomes a resource to be mobilised and exploited.²⁹

Sometimes content moderation is outsourced via crowdworking platforms, which divide them into micro-tasks which are performed by workers from all over the world. Crowdworking platforms are yet another type of platform that mediates between a workforce that includes potentially everybody with access to the internet, not only for content moderation but for a multitude of tasks that computers cannot (yet) solve. Racism and perceptions of cultural differences are present in the design, infrastructure and global distribution of labour enabled by crowdwork platforms, as for example the research of Lily Irani shows.³⁰ The platform’s global and hyperflexible ‘on-demand’ labour pool is another layer in the geography of digital labour and is also an expression of new emerging forms of the (algorithmic) organisation of labour in “platform capitalism”.³¹ Crowdwork allows not only the scalable, flexible and temporary employment of distributed workers in general, but also taps into further labour resources. As it can be done flexibly and in front of a home computer, crowdworking allows people to do an hour or two of digital labour between domestic tasks.³² And Housework and care work is in its majority still mostly done by women as we know. This phenomenon is yet another example of the multiplication of labour, a process that cannot be understood only in spatial terms, but as a process that allows the inclusion of new and heterogenous fragments of labour power in a multiplicity of ways, and importantly, one connected to the gendered nature of labour.

Crowdworking, content moderation, and gold farming can finally be described as a segment of digital labour that can be analysed as ‘digital Taylorism’. These digital workers are different to the creative, communicative and urban figures of the immaterial labour debate, such as designers and programmers. Repetitive yet stressful, boring yet emotionally challenging, needing little formal qualification yet much

29 Cp. Xiang, *Global ‘Body Shopping’*.

30 Cp. Lily Irani, “Difference and Dependence among Digital Workers: The Case of Amazon Mechanical Turk”, *South Atlantic Quarterly*, 114(1), 2015, pp. 225-34.

31 Nick Srnicek, *Platform Capitalism*, Cambridge, Polity, 2016.

32 Cp. Moritz Altenried, “Die Geburt der künstlich künstlichen Intelligenz. Crowdwork, Prekarisierung und digitale Selbstorganisation”, *Zeitschrift Luxemburg*, 2015. Available at: <http://www.zeitschrift-luxemburg.de/die-geburt-der-kuenstlich-kuenstlichen-intelligenz/> [accessed February 20, 2017].

cultural knowledge, inserted into algorithmic architectures yet not automatable (at least for now), the segment of labour we classify as digital Taylorism is an integral part of the political economy of the internet and beyond. The labour of content moderators, gold farmers, or the ‘raters’ refining Google’s search algorithm is often invisible behind seemingly automated systems.³³ Yet, the digital factories in China, the booming IT districts in India or the Philippines, the millions of crowdworkers in front of their home computers, are witnesses to the labour intensity of almost every aspect of digital cultures. Since the election of Donald Trump as president of the United States, much has been written about the shift of political campaigning towards the usage of big data and the new scale of manipulation of the electorate. One important argument went astray. Arguably, Trump’s presidential campaign executed by Steve Bannon was less characterised by the innovative and automated use of the magic of big data but rather by the large-scale deployment of outsourced digital labour,³⁴ be it in form of Facebook ‘likes’ delivered by workers from Filipino or Mexican ‘click-farms’,³⁵ or the famous case of the a 15-year-old girl from Singapore who created presentations for the Trump campaign via the crowdworking platform Fiverr.³⁶

DIGITAL MOBILITIES

The journey of labour power takes many different forms. Migrants are crossing borders or move to urban areas in search for better lives. Global logistics and infrastructures allow the global travel of labour power crystallised in commodities. Communication systems allow the even faster transmission of data and services over great distances. China is a focal point and special case regarding all these forms of mobility of labour power. Hundreds of millions of internal migrants move to cities and coastal areas, where a large proportion works for export oriented industries.³⁷ The goods produced here travel via ship, train or plane to

33 Cp. Lilly Irani, “Justice for ‘Data Janitors’”, *Public Books*, 2015. Available at: <http://www.publicbooks.org/justice-for-data-janitors/> [accessed February 20, 2017].

34 Cp. Antonio A. Casilli, “Never Mind the Algorithms: The Role of Click Farms and Exploited Digital Labour in Trump’s Election”, 2016. Available at: <http://www.casilli.fr/2016/11/20/never-mind-the-algorithms-the-role-of-exploited-digital-labor-and-global-click-farms-in-trumps-election/> [accessed February 20, 2017].

35 Cp. Jennings Brown, “There’s something odd about Donald Trump’s Facebook page”, *Business Insider*, 2016. Available at: <http://www.businessinsider.com/donald-trumps-facebook-followers-2015-6?IR=T> [accessed February 20, 2017].

36 Cp. Mary-Ann Russon, “Donald Trump outsourced a teen’s computer skills to create campaign video for youth votes”, *International Business Times*, 2016. Available at: <http://www.ibtimes.co.uk/donald-trump-outsourced-teens-computer-skills-create-campaign-video-youth-votes-1592089> [accessed February 20, 2017].

37 Cp. Pun Ngai, *Migrant Labour in China*, Polity, Oxford, 2016.

their destinations, and labour follows.³⁸ Projects such the ‘One Belt, One Road’ initiative by the Chinese government show that today “rather than the world factory, China might be better conceptualized as a logistics empire”.³⁹ This project, also known as the ‘New Silk Road’ consist of new connections via railway, ship and fibre cable linking China with Central Asia, the Middle East and Europe and Latin America. Such a project produces new logistical spaces, corridors and cities and sets into motion new circuits of migration.

Behind these very visible forms of the mobility of people and goods, the forms of virtual migration by Chinese gaming workers explored in this paper are less visible. It is clear, however, that digitisation is profoundly reconfiguring labour and mobility in any register and digital migration will become an even more important form of labour mobility. The forms of digital migration have to be seen in continuity with other forms of circulation. Goods travel increasingly not only on ships and planes but also through transcontinental fibre optic cables hereby reconfiguring profoundly the global geography of production and circulation. This produces new patterns of mobility, new forms of migration, new forms of exploitation and racism but also new sites of collectivity and resistance.

38 Cp. Manuela Bojadžijev, “‘Najkraci put u svet’ – Der kürzeste Weg in die Welt. Migration, Bürgerrechte und die EU in den Staaten des ehemaligen Jugoslawien”, in Forschungsgruppe Transit Migration (ed.), *Turbulente Ränder. Neue Perspektiven auf Migration an den Grenzen Europas*, Bielefeld, transcript, 2007, pp. 87-106.

39 Deborah Cowen, *The Deadly Life of Logistics: Mapping Violence in Global Trade*, Minneapolis/London, University of Minnesota Press, 2014, p. 67.