



# DIGITAL LABOUR

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Mark Graham and Mohammad Amir Anwar  
Oxford Internet Institute, University of Oxford

## Digital Labor

David Harvey once famously noted that work is inherently place-based because, in contrast to capital, “labour-power has to go home every night” (Harvey 1989, 19). Work has traditionally been tethered to place: a farmer tilling a field; a hunter hunting prey; a factory worker operating a machine; a homemaker cooking and cleaning in a house. All these activities have required that workers be physically proximate to the object or output of their labor.

This relationship between workers and place became more complicated once the raw material that people were working with was information – something that could be manipulated remotely. The tool was no longer just a spade, a plough, or a machine in a factory, but rather devices that could store and instantaneously transmit information. A worker always performs work in the time and place that they inhabit, but all of a sudden, their work is also simultaneously done somewhere else.

This meant that an important link between workers and the object of their work was severed. If workers can do information-based work that can be quickly transmitted around the world, then that work can, in theory, be done from anywhere and by anyone who has access to the right machines and connectivity. When you file a complaint because the train was late or call an airline to request a special meal on your flight, the workers who handle your requests could be either down the road from you or on the other side of the planet. We have a mass migration of labor without the migration of workers (Standing 2016).

Does this mean that geography no longer matters to digital work? Not exactly. This chapter draws on our previous empirical research into digital labor to outline how geography matters, and who it matters for in a world of increasingly digital work. The contemporary geography of digital labor can be used to exploit workers, but we also argue that it opens up distinct possibilities for digital workers to recreate their own worlds of work.

### Historical Contextualization: Old and New Silk Roads

In contemporary scholarship, the term ‘digital labor’ has been used to describe a huge variety of activities: clickwork done in people’s homes, call-center work in large offices, editing a Wikipedia article, and even uploading a photograph to social media from a phone (Fuchs 2013; Scholz 2013; Graham 2012). This chapter concerns itself with the kind of digital labor that is both income generating and digitally-intensive (rather than just delivered over digital networks)<sup>1</sup>. In order to adequately discuss the nature of digital labor, it is useful to first outline what is and isn’t new about digital work.

Since the advent of trade, long and complicated global production networks have existed, with workers on one side of the planet laboring to make things that would be sold and used on the other without coming in contact with their consumers. For instance, two thousand years ago, the

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<sup>1</sup> Specifically, we focus on work that is: predominantly digitally-based (i.e. work that is based on the manipulation of digital data in some form), digitally intensive (value is primarily created from the manipulation of digital data), potentially non-geographically proximate (i.e. work that can, in theory, be done from anywhere), and income generating (rather than, say, the act of updating a social media profile).

Silk Road allowed Roman glassware to be sold in China and Chinese silk to be sold in the Roman Empire. Two thousand years later, the advent of contemporary technologies has changed the temporality of such relationships: a Kenyan rose grower who picks and packages her flowers on a Monday on the shores of Lake Naivasha could have her products bought and displayed in a home in Rome by the end of the week.

In both moments and modes of production, and everything in between, there is a spatial division of labor at play (Massey 1998). In other words, there is a functional division of labor between different parts of the world. With exceptions, due to highly uneven geographies of transportation technologies, the further away a production site is from the end consumers in a global production network, the longer it takes to deliver goods. This meant some non-perishable goods can be produced at great distances from sites of consumption (e.g. coal or cars), while more perishable goods are produced closer to home (e.g. dairy production). Many other factors undoubtedly also come into play (e.g. regulatory environments, regional specializations, commodifiability of goods etc.), but the point remains that there has traditionally been an important relationship between what was produced, and where it is produced and consumed.

In both cases, it is also noteworthy that while sites of production (and associated labor) could be spread out across the planet, some types of service work remained relatively geographically bound to the places in which it was used or consumed. While a Chinese silk weaver or a Kenyan rose grower can both perform work thousands of miles from a Roman consumer, a Roman shopkeeper (based in Rome) is still needed to sell those goods. Put differently, some jobs carried with them an inherent geographic stickiness.

The rise of digital labor has seen these two commonalities change. First, for digital work, the link between distance and time has been almost completely severed. Proximity between employers, workers and clients now has almost no impact on how quickly a digital product or service can be delivered. Second, for many types of service work, geography has become less sticky. The modularization, commodification, and standardization of work tasks (Scott 2001), the creation of markets for digital work, and advances in automation all present ways to sever the ties between service work and particular places.

These two changes have been apparent in the two most significant moments in the history of digital labor. A first wave of digital labor arose in the 1980s. Western firms began outsourcing their non-core business functions to low-wage locations (Taylor and Bain 2008). By the 1990s, countries like India and the Philippines were home to millions of workers who were carrying out service work for predominantly Western clients. Those workers, however, almost always were employed in the local labor market by an outsourcing firm that had a physical presence there.

A second wave of digital labor appeared much more recently in the form of ‘cloud work’ (Graham, Hjorth, and Lehdonvirta 2017). Cheap computers and connectivity have drastically lowered costs of some of the means of production: creating an enormous potential labor pool. Unlike the first wave that involved outsourcing between different firms and organisations, digital work platforms (such as Upwork.com and Freelancer.com) can now match big firms, small businesses and individual clients directly with workers and small enterprises anywhere. A small business in London, for instance, can now directly hire a worker in Kenya to make a website for them. Work is always inherently done at the worker’s physical location, but it simultaneously can be done or delivered to any other connected part of the globe: allowing workers to escape some of the constraints of their local labor markets. Unlike a farmer or a factory worker, today’s digital workers have far less need to be physically proximate to the object of their labor.

## Digital Labor

Today there are close to 50 million people who have registered with digital work platforms in a market that has surpassed \$4 billion of transactions (Kuek et al. 2015). All of those potential workers, of course, must go home every night. They still have to interface with a physical machine, which they – at some point – plug in to a physical wall somewhere. But an ability to quickly transmit, mediate, or co-perform work in other places does mean that something has changed. Despite being tethered to the places in which they live, workers can now do digital work that originates anywhere.

While this has brought jobs to millions that might not have been available in their local labor markets, some of our previous research highlights significant issues for workers that arise (poor/no bargaining power, discrimination, precariousness, and poor skill development) (Graham, Hjorth, and Lehdonvirta 2017). Many of the identified issues are all related to the huge over-supply of labor power. Graham et. al. (2017) show that on one major platform, there are often ten times as many online job seekers as there are workers who successfully manage to get a job (in some African countries this number is even much higher). This oversupply of labor has the effect of pushing down labor costs and restricting the ability of workers to bargain for better conditions. Furthermore, because of the ways that platforms are designed, competition rather than collaboration between workers is encouraged. Workers are classed as independent workers rather than employees and are made to feel like relatively atomized entrepreneurs competing for gigs in a global market, rather than employees or workers who share key commonalities, deserve some of the rights of employees, and who might benefit from collective organization and bargaining. Workers recognize that they are often relatively atomized competitors in global markets, being aware that if they don't do a job at the rates and conditions at which it is offered, then someone else will (Graham, Hjorth, and Lehdonvirta 2017).

As ever more people from low-income countries join the internet<sup>2</sup>, this creates a worrying state of affairs. Clients located primarily in high-income countries can force workers from around the world (in rich and poor countries) to compete with one another in a giant labor market. Unless the supply of jobs on digital work platforms outstrip the supply of labor, new workers will find themselves locked into an increasingly difficult cycle of competition with one another. In other words, the spatial configuration of digital work and digital workers might ultimately lead to a race to the bottom.

### *The Production of Space*

One way of thinking about the current configurations of digital labor is as a deliberate construction of contemporary capital. Capitalism is inherently crisis ridden and in order to overcome its crises and survive, capital creates a physical landscape (Harvey, 1978, 124) or produces space in its own image (Smith 1984; Lefebvre, 1991). David Harvey (2003) referred to such processes as 'spatio-temporal fixes'. There are two meanings of fix here: first, a literal meaning as fixing capital in place in physical forms (factories or transportation infrastructure); second, a metaphorical meaning, as in a solution to crises in capitalism through spatial reorganization of capital and specific strategies, to address those crises. In other words, fixes represent capitalism's ability to create a landscape (only to have it destroyed at a subsequent point in time) so that profits are made, albeit temporarily. Fixes lead to newer contradictions and

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<sup>2</sup> At the time of writing there are 3.5 billion internet users on the planet and 2017 will be the first year in which more than half of the world's population is connected to the global network. Due to saturation in high-income countries, most of the new growth in internet use will come from people in low- and middle-income countries.

therefore, new rounds of spatio-temporal fixes are introduced (Harvey 2014). Thus, fixes can be understood as a never ending search for both internal and external transformation of capitalism through “geographical expansion and geographical restructuring” (Harvey 2001, 24).

Specifically, capital or labor surpluses gets exported and moved to deal with those crises. A company in the United States seeking lower labor costs would, for instance, locate a factory in a low-wage location such as Mexico. Many of these fixes allowed space to be produced in very particular ways: putting workers from around the world into competition with one another. This rendered relatively immobile workers in the original locations with little bargaining power to extract better working conditions.

Digital labor certainly presents a new kind of fix that generates a reserve army of labor (often from spaces previously beyond the control of international capital such as students, the retired, housewives and the unemployed in low- and middle- income countries). But is this a fix that is fundamentally different in nature from previous ones, in an inter-connected world economy?

The networking of the world relies on fixed forces of production (for instance, the global networks of submarine fiber-optic cables). Once these infrastructures are in place, a fix at a scale never before possible has been brought into being. If capital produces space in its image, and does so by building upon successive waves of fixes, can space continue to be remade in a world of full connectivity? Unlike previous fixes, perhaps the global nature of this one means that geographic expansions are no longer possible; perhaps we ultimately reach a point where everybody and everything is connected.

This could be the final fix for labor: a system where workers are tethered and atomized, and pitted against each other in one giant market<sup>3</sup> where their labor is bought and sold as a commodity; one where firms that outsource work are able to draw on an infinite pool of tethered workers<sup>4</sup>. A virtual fix in which capital no longer needs to be frozen into place (Green and Joseph 2015), and in which labor surpluses can be exported without exporting laborers, thus affording workers little voice and little power. How do we avoid this? How do we instead build a world that is co-created by workers?

### *Digital Space: Whose Digital Space?*

Here is it useful to draw on Andrew Herod's (2001) *Labor Geographies* in which he distinguishes between the geography of labor (i.e. the distribution of labor: something that tends to portray workers in a passive way) versus labor geographies (which portray workers as active agents able to create and manipulate space to their own advantages). Herod notes that in the process of simply ensuring that the spatial fixes needed for workers to reproduce themselves are in place, they too shape the geography of capitalism. He therefore takes issue with descriptions like the one above that deprive workers of agency. While it is true that capital can produce space, so too can labor.

Herod showed, for instance, how a New York City garment workers' union successfully shaped city planning laws to protect jobs, and how a North American dockers' union was able to resist

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<sup>3</sup> It is worth noting that almost all successful digital work platforms are owned and run by profit firms (usually backed by venture capital).

<sup>4</sup> Even though costs of some of the means of production have been drastically reduced, only a few firms have tightened their grip on the means of distribution (admittedly an integral part of the means of production): a situation that affords them great power.

the relocation of the freight-handling industry from the unionized coast to cheaper locations inland (Herod 2001). Both strategies were more than simple stories of global capital creating a world in its own image, instead involving large coalitions of organized workers shaping the built environment together to bring about economic geographies that better serve their interests.

But if capital or labor are to produce new economic spaces, and those spaces in turn constrain and enable what is and isn't possible, we should do more to understand emerging digital spaces of work. The contemporary global network of digital labor is an inherently geographical project. Following Herod's prompt, we therefore need to understand not just how current digital geographies are created, but also how workers can actually produce new kinds of digital labor geographies themselves in order to envision new ways in which they can be recreated.

Digital space can therefore be conceptualized in two ways. First, there is the vision that digital technologies can actually bring into being an entirely new ontic space: a "world that is both everywhere and nowhere, but it is not where bodies live" (Barlow 1996). In other words, digital tools and technologies create a new plane of existence. A *digitally distinct space* that is "both fixed in a distinct digital location, and simultaneously accessible from anywhere" (Graham 2015, 870).

A second way of envisioning digital space is as something that augments already-existing spatial relations. Here *digitally augmented space* is not pre-existing, but is rather the "indeterminate, unstable, context dependent and multiple realities brought into being through the subjective coming-togethers in time and space of material and virtual experience" (Graham, Zook, and Boulton 2012, 465). Instead of creating any sort of ontologically-distinct space, digital tools here augment our experiences. These augmentations sometimes involve reconfiguring relative positionalities by changing spatial and temporal frictions, but they never totally transcend the material world.

### **Rethinking the spaces of digital labor**

Instead of arguing that one of these approaches may be more useful than the other, I wish to show how they can both be useful in different ways. Labor's own digital spatial fixes can be brought into being with both worldviews.

If we think of digital space as being digitally distinct, we must first ask what the nature of this space is. The markets that platforms create are the digital spaces, and these spaces are not just inherently non-public, but are also entirely created by actors who do not necessarily have workers' best interests at heart. In contrast to Herod's vision that there can be a 'labor's spatial fix', every facet of these spaces is designed from the bottom-up by capital. There is literally no space for workers to create a space.

Yet even here, there are ways workers can create their own fixes. One is to look to the history of the picket line. A picket line is generally a protest outside of a place of work in order to stop people from going in. It is a way of shutting down the means of production. In the context of digital labor, it could be argued that most workers actually control the means of production (their computers). But it is rather the means of distribution and sites of consumption that they seem to have no control over. We could therefore look to picketing tactics to think through how sites of distribution and consumption can be blockaded. Instead of physically blocking a shop or an office, we could use tactical media approaches to picket the digital presence of a firm (Lovink 2002). Think for instance of how political activists use 'Google bombing': manipulating search engines to display desired information to certain queries (the most famous example of this being results related to US President Bush returned in response to the query 'miserable failure'). If a

digital firm is its digital presence, then despite how controlled digital spaces are, tactical media approaches offer suggestions on how to block, barricade, and re-fix space. These approaches will not shut down a company, but might provide a sufficient amount of disruption to make client/company tactics to extract the absolute most work for the absolute minimum cost less viable.

A vision of a digitally distinct space also offers opportunities to move past the idea that digital workers are atomized alienated competitors. If digital workers can converge into a digital space, doing so offers opportunities for horizontal collaboration rather than purely competition between workers. Digital workers already collaborate to find jobs, support one another, and share strategies to deal with clients and administrators. Workers might be geographically isolated, but they are using digital tools to co-convene and digitally congregate. Any effective future worker resistance is likely to be based on the ability of workers to do this. However, many workers do ultimately always remember their scattered material geographies: that instead of being immersed a space of co-presence with fellow workers, huge distances separate them and workers are willing and able to undercut them.

It is therefore useful to move beyond the digitally distinct vision and frame digital labor as something that happens in digitally augmented spaces. Digital labor here happens not in some abstract space, but instead in the huge diversity of homes, offices, public, and private space in which work is carried out. What opportunities does an augmented view of work afford workers who wish to create their own labor geographies?

Seeing the world as digitally augmented initially helps to distinguish between geographically sticky work (such as driving) and non-sticky work (e.g. data entry). Workers doing geographically sticky work have inherent advantages when it comes to trying to build collective action (in the UK, for instance, striking delivery workers used apps to order food in order to make contact with fellow workers).

Workers doing non-sticky digital labor do not have these same advantages. As mentioned earlier in this chapter, some workers feel that they have no bargaining power. However, Graham et. al. (2017) show digital work can be carried out from anywhere does not necessarily mean that it will. Different types of digital work concentrate in particular places. Understanding the economic topologies and geographies of the digitally-augmented landscapes that workers and clients bring into being allows bottlenecks and weak-points to be identified. If, say, online personal assistants know that a third of world's work happens in the Philippines, then they have some of the same advantages that exist in the context of sticky work. This does not negate the weak structural-economic power of those workers, but it presents collaborative opportunities that would not exist if those workers were truly scattered around the planet. Whilst it is true that there is a large global reserve supply of labour, it remains that, for most job types, labour is both not as commoditized as many buyers of it would hope it to be, and operates with a 'just in time' temporality: making it hard to quickly shift large parts of global value chains from one part of the world to another (see Silver (2003) for a similar argument).

Realizing the potentials for localized coalitions of workers is one way of highlighting bottlenecks and chokepoints in the economic landscapes. It opens up possibilities for coalitions of workers to threaten to withdraw labor, and limits the ability of clients to spatially switch work.

Understanding the material geographies of digital labor can also help in devising ways to better regulate it. Perhaps due to its transnational nature, much of today's digital labor is unbound by regulations. Clients rarely pay attention to rules on the books in workers' countries of origin.

Although some workers thrive in this environment, it can hurt more vulnerable workers – who are the very people regulation should be designed to protect. If digital labor is seen to take place in a global digital market, some would argue that the reason that it is largely unregulated is because it is unregulatable.

To counter this idea, we can recognize that digital work is not global. Rather, it is international. It has clear concentrations, and always/inherently falls under the jurisdiction of at least one place. This opens up possibilities for workers and their allies to take action in specific jurisdictions that end up re-shaping the economic geographies of digital work.

## Conclusions

The networking of the world has not rendered geography irrelevant -- far from it. Clients now have access to a globally-dispersed pool of workers tethered to their homes because labor-power does still have to go home every night. This state of affairs presents a worrying and precarious situation for digital workers. In this chapter, we have argued that a spatial division of labor has been constructed in which digital labor is traded as a commodity at a global scale by placing workers into competition with one another in way that undermines the power of workers.

However, the geographic landscapes of digital labor that we see are not an inevitable outcome of the spread of digital technologies to every corner of the world. This chapter also argues that possibilities exist for what Herod (2001) refers to as ‘labor geographies’: spatial fixes created by and for workers that challenge the idea that atomized competition is an inevitability. Two very different ontologies – ‘*digitally distinct space*’ and ‘*digitally augmented space*’ can be used to build those strategies.

This is not just an argument about semantics. Workers, unions, and regulators are all using outdated concepts to try and make sense of a contemporary world of work. If we are to build a fairer world of work, we are going to need new language and new concepts for networks, processes and organisations of digital labor, for strikes, for picket lines, and for coalitions of, and collaborations between, workers. These concepts will shape how we understand digital labor and how we envision ‘paths to the possible.’

Strategically deploying those spatial ontologies reveals sites at which the proactive geographical praxis of workers can reshape the geographies of labor. Workers do not necessarily need global campaigns to match the global reach of platforms and clients – instead, they need to understand the nodes at which the local can influence the non-local. Workers carry the power to dismiss the idea that digital labor represents a final hegemonic spatial fix in which they have no agency due to atomization and the commodification of work. Reconceptualizing the geographies of digital labor and digital labor geographies reveals remaining possibilities for collective action, for labor’s own spatial fixes, and for a reshaping of the very landscapes of digital work.

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