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Literature review - Online moderately skilled click-work: Employment and working conditions

Employment and working conditions of selected types of platform work

Platform work: Maximising the potential While safeguarding standards?

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Introduction

The importance of matching supply of and demand for paid work through online platforms, commonly referred to as 'platform work', is increasing worldwide. Types of platform work are highly diverse, ranging from highly specialised tasks, such as hiring a lawyer for legal advice, to more routine tasks, such as delivering food from a restaurant to a customer, to very basic tasks, such as entering numbers from a scanned receipt into a spreadsheet. This working paper focuses on online micro-tasks, a type of platform work which is delivered online via a website or app and requires only basic skills and education.

As part of Eurofound's research activities on 'work and employment in the digital age', and more specifically its research strand related to platforms (see for example Eurofound, 2018), this paper aims to provide a review of relevant literature on online micro-tasks. The literature selection mainly contains publications between 2011 and 2019. The paper aims to define online micro-tasks and give examples of the most relevant platforms and most commonly requested types of tasks. It focuses on the employment and working conditions of online micro-task workers, by defining their demographic profiles, discussing their motivation to do online micro-task work, reviewing their employment status and access to social protection, providing information on autonomy and earnings, evaluating their work intensity and quality, and looking at their ability to build representation and organise labour.

Definition: Online micro-tasks

Online moderately skilled click-work (for simplicity further on referred to as 'online micro-tasks') is a specific subgroup of platform work. Platform work is an employment form in which organisations or individuals use an online platform to access other organisations or individuals to solve specific problems or to provide specific services in exchange for payment (Eurofound, 2018).

According to methodology developed in Eurofound (2018), it is possible to differentiate between two formats of **service provision**: *On-location* services, which are delivered by the worker in person on the location of the client, and *online* services, which are delivered via the internet and do not require the worker to be present at the same place as the client. Online micro-tasks are performed and delivered via the internet, usually via a website or smartphone application that allows platform workers to acquire tasks and deliver the results. Online micro-tasks therefore belong to online services. The **scale of tasks** is usually very small, on many occasions tasks can be performed within seconds or minutes and can therefore be classified as *micro*. This is also reflected in the **skill level**, which determines whether the completion of tasks requires any sort of further education or vocational training. Contrary to other forms of online delivered platform work (such as *online contestant specialist work*), online micro-tasks are usually not of a complex nature, and therefore require only a *low to medium* skill level.

In terms of the platforms mechanisms, it is possible to differentiate between different **selector types**, that is, the question whether the worker is selected (that is, the task assigned) by the client, the platform, or the platform worker. The allocation of online micro-tasks is usually done by the platform using an algorithm, the final decision to accept a task however is done by the platform worker. Therefore, the **form of matching** is *by offer*, as the algorithm offers tasks at a given price and the worker can either accept or reject it.

Micro-tasks differ from other platform tasks mostly in their complexity and the level of skill or expertise required by the worker as well as the speed at which they are performed and delivered. For platform work, Pesole et al (2018) broadly differentiate between professional tasks, non-professional tasks and on-location tasks. They map micro-tasks to the group of non-professional tasks, as these are usually repetitive and simple, and require only a medium level of skills and education. Berg et al (2018) define micro-task platforms as '*[…] those crowdwork platforms that provide businesses with access to a large flexible workforce distributed across the globe for performing numerous small and quick, often repetitive, tasks'*

and stress that they emerged to perform tasks that require human intelligence and cannot yet be performed by Artificial Intelligence (AI).

Schenk and Guittar (2011) define two extremes of platform work: *Simple tasks* such as data collection or translations of simple texts, and *complex tasks* such as problem-solving within innovation projects. The online micro-tasks focused on in this working paper belong to the simple tasks, which the authors associate with low cognitive requirements and relatively low involvement from the worker. According to the authors, the added value of platform work in these cases does not stem from individual skills, but from the low cost of finalising tasks on a large scale.

Online micro-tasks make a large amount of services offered by platforms. In an analysis of 98 online crowdsourcing platforms (operating worldwide, but mostly located in the United States), Mourelatos et al (2017) find that 42.9% of them offer services which can be attributed to online micro-tasks (these include simple microworks and data entry services). Only 25.5% provide services with high knowledge intensity or more skilled tasks such as program developing. This shows that online micro-tasks are highly relevant in the online platform economy.

Examples of online micro-task platforms

There are many online micro-task platforms. Amazon Mechanical Turk, Clickworker, and Figure Eight (formerly CrowdFlower) are among the well-known and give a good picture of the nature of tasks performed and services provided through online micro-task platforms.

Amazon Mechanical Turk (AMT) advertises its services with the claim to offer a '*24/7, global distributed workforce'* to requesting companies and individuals, while it offers workers the flexibility to work when, where, and how much they like. The platform was initially developed internally at Amazon to outsource parts of computer programs to humans and was made public in 2005. According to data from *MTurk Tracker*, a data provider, around 60% of workers in 2019 are located in the United States and 40% elsewhere in the world, with India hosting a large proportion of AMT workers.

Clients can request services in the artificial unit of a 'Human Intelligence Task' (HIT), which usually is a self-contained, single step task that can be requested via the AMT website. AMT offers programmatic access to its services, that is, requesters can automise tasks that require human intelligence. This could be, for example, checking the content of videos uploaded to an online video platform for inappropriate content.

Another example is **Clickworker**, a platform which specialises in providing micro-task services such as categorisation and tagging of images and videos but offers also moderately skilled click-work such as product descriptions and blog articles. The company was incorporated in 2005 and counts over one million platform workers as of 2019. Like AMT, it offers programmatic access to its service, enabling requesters to automatically embed micro-tasks in their workflows. Requesters can limit access to tasks to specific groups with a certain skill level. For example, a requester can define that a task they initiated can only be fulfilled by someone whose native language is German – to demonstrate their skill level, workers have to do an assessment before the algorithm will grant access to these tasks.

Figure Eight, formerly known as *CrowdFlower*, was founded in 2007 to get access to workers that would tackle simple tasks that could not be automated (Boone and Kurtz, 2012, p. 98). It was then further developed to serve as a platform that allows human-in-the-loop machine learning practices, that is, machine learning practices algorithms that are trained by humans before they can perform their task. These tasks include for example text transcriptions and image classifications. Requesters can upload data such as text, images, videos or audio files, which are tagged by the micro-task worker and can then be further processed by the requester's applications. eBay, an online marketplace, uses this technology for example to categorise its products and make them easier accessible for customers.

Tasks performed on online micro-task platforms

Gadiraju et al (2014) used crowdsourced surveys to develop a taxonomy of micro-tasks. Within their collected data, they find six high-level classes of online micro-tasks from which they create in total 21 sub-classes.

Table 1: High-level categorisation of micro-tasks

Category	**Example**
Information finding	'Find information about a company in the UK'
Verification and validation	'Check if the twitter users are either real people or organisations, or merely spam twitter user profiles'
Interpretation and analysis	'Choose the most suitable category for each URL'
Content creation	'Translate the following content to German'
Surveys	(Participant required to fill out a survey)
Content access	'Read the information by following the website link'

Source: Gadiraju et al, 2014, p. 221

As Table 1 shows, many tasks provided on online micro-task platforms require either no specific skills (such as surveys or content access) or a moderate skill level (such as speaking another language to create translated content). The characteristics of the tasks do not require any special equipment other than a mobile device with internet access, making it possible to work even outside standard office settings. In line with that, Pesole et al (2018) name object classification, tagging, content review, website feedback and similar as examples for online micro-tasks.

In their analysis of different online micro-tasks, Gadiraju et al (2014) also find that on some occasions tasks are requested with hidden motives, such as artificially influencing popularity or general sentiment of particular content. Workers could for example be asked to access a YouTube video that contains a certain marketing message or political opinion. The more views a video gets, the more likely it is to be suggested to other users, thereby artificially increasing its popularity.

Online micro-task platforms are increasingly used to perform experiments or surveys across different research disciplines, including behavioural research (Mason and Suri, 2012), sociology (Shank, 2016) or consumer research (Goodman and Paolacci, 2017). Ambati et al (2011) see possible applications in the field of language, speech, vision, human-computer interaction and biology.

Employment and working conditions

Online micro-task workers' profiles

Ipeirotis (2010) and Difallah et al (2018) have compiled a survey dataset[1] with 40,000 respondents of workers on the AMT platform. The dataset includes mostly workers from the

[1] Direct access to the dataset is available on http://demographics.mturk-tracker.com/#/gender/all

United States (around 60%) and India (around 30%). The dataset comprises of demographic information including gender, year of birth, marital status, household size, household income and the country of the respondent. The results show that AMT workers are younger than the overall working population (60% of AMT workers in the United States are born after 1980, compared to 40% of workers in the working population) and tend to have below average household incomes (the median household income in the United States is $57,000 (€51,000), while for AMT workers the median household income is around $47,000 (€42,000)). In terms of gender, the AMT workforce seems to be balanced (51% female workers and 49% male).

In terms of gender distribution, Berg et al (2018) find a change between 2015 and 2017. While in 2015 there was gender balance amongst American AMT workers (52% men, 48% women), in 2017 only one out of three workers were female. In India and other developing countries, online micro-tasks are predominantly performed by men. In contrast, Ipeirotis (2010), with reference to survey data from 2010, find an overrepresentation of women in the AMT workforce of the United States (over 60% of workers are female), but also an overrepresentation of men in the Indian AMT workforce (70% of workers are male). The authors explain this difference with different employment approaches. While in the United States AMT work is more often a supplementary source of income, Indian workers often treat income from AMT as a more significant part of their overall income. A relationship between the nationality of AMT workers and the gender distribution is also found in Ross et al (2010), who analyse data between March 2008 and November 2009 and find that while the share of workers from the United States decreased from 76% to 56%, also the share of female workers decreased from 58% to 52%.

Different studies look at the age structure of online micro-task platform workers. Data by the International Labour Organization (ILO) show an average age of around 28 years for workers in developing countries and 35 years for workers in developed countries (Berg, 2018). Data of Ipeirotis (2010) indicate that the population of AMT workers is younger than the general population, with 54% of platform workers between 21 and 35 years of age, compared to 22% in the general population. These findings seem to be in accordance with a general tendency in the platform economy to have younger workers than the equivalent general population (Codagnone et al, 2016).

The education level of platform workers features frequently in research. Berg et al (2018) show that 37% of workers who took part in their survey have at least a bachelor's degree, and around 21% of respondents at the time of the survey were enrolled in university education with the aim to receive a degree. Similar information on educational levels are found in Ipeirotis (2010), who present AMT survey data for workers in the United States and India, and find that the educational level of platform workers is higher than the general level in the population of the United States and India. Over 30% of American and over 50% of Indian respondents in their sample have at least a bachelor's degree. In a survey conducted by Ross et al (2010), 42% of respondents declare to have a bachelor's degree.

In another study performed on AMT, Bergvall-Kåreborn and Howcroft (2014) stress the clear distinction that needs to be made between workers who are hired by a client in a traditional employment relationship and online micro-task workers who are working as self-employed. They remark that the form of remuneration has direct impact on workforce demographics: Before allowing payment in Indian rupees in 2007, the AMT workforce consisted mainly of US internet users seeking to supplement their income, while after allowing payment in Indian rupees, the workforce saw an increase in the proportion of young, educated workers relying on the site as a primary source of income.

Motivation

Motivation to engage in online micro-task work stems mostly from the inaccessibility of other types of work and from the simplicity in the nature of micro-tasks.

Kaufmann et al (2011) developed a model to analyse worker's motivation to engage in platform work. They differentiate between *intrinsic motivation*, which includes enjoyment

based motivation (such as the desire to apply a certain skill), community based motivation (such as the desire to meet new people via the platform), *extrinsic motivation*, which includes payoffs both immediate (through payment) and delayed (signalling, human capital advancement), as well as *social motivation* (such as building a network with other motivated people). They applied their model to 431 AMT workers using a survey. The sample consisted 55% of male and 45% of female participants, located mostly in the United States (48%) and India (39%). Immediate payoffs in form of payments score highest, followed by task autonomy and skill variety, which are part of the employment based motivation. Social contact and 'action significance by norms and obligations', which are stemming from social motivation, score lowest. It is therefore apparent that the motivation for online micro-task work is both extrinsic (in form of immediate payoffs) and intrinsic (in form of enjoyment based motivation).

As online micro-tasks due to their simplicity require only a low level of skill or expertise, and can often be done with very basic hardware such as a simple smartphone, they attract groups of workers who would not normally engage in other forms of platform work that require specific skills or the purchase of equipment. Narula et al (2011) show that online micro-task platforms can reduce poverty in countries with low education levels as they reduce the barriers of entry to the labour market. They discuss *MobileWorks*, a micro-task platform operating in India which offers tasks that can be fulfilled via an ordinary mobile phone and do not require English language skills. Other forms of platform work would not be accessible to these kinds of workers due to a lack of hardware (other online tasks usually require either a smartphone or a computer) or due to a lack of language skills (most customers require content creation in English language).

Lehdonvirta (2016) conducted interviews with workers of *AMT*, *MobileWorks*, and *CloudFactory* whose workers are mostly located in the United States, the Philippines and Nepal. The interviews give insights into the financial situation of these kinds of workers. Workers in Nepal often financially depend on their parents and use micro-tasks to earn additional income, while micro-task work from respondents in the Philippines is often motivated by the desire to earn income in addition to other irregular income sources. Workers from the United States usually engage in micro-tasks to earn an additional income, either supplementary to their own income or to the income of their spouse. According to the findings of the study, the unavailability of job opportunities in the local market was an often stated reason to engage in online micro-tasks. This finding is further supported by Lehdonvirta et al (2019), who theorise global micro-task platforms with transaction cost economics and argue that platforms reduce cross-border information asymmetries compared to conventional offshoring companies. For example, workers based in emerging economies who usually would find it difficult to get a job at a local offshoring firm can make use of platforms to signal their skills and reliability and provide work to foreign clients.

Online micro-tasks can also provide access to the labour market for individuals who usually find it difficult to work in traditional job environments due to disabilities but still have the motivation to earn an income. Hara and Bigham (2017) conducted a study with adults suffering from Autism Spectrum Disorders (ASD), a group of people which usually has high unemployment rates. Their findings suggest that participants had varying levels of ability to work on micro-tasks, but in many cases were able to work on image transcription, a highly demanded task on online micro-task platforms.

Deng and Joshi (2016) analysed a survey sample of 55 AMT workers to identify their motivation in engaging in online micro-task work. According to their findings, motivation stems from the work setting such as workplace flexibility and the ease to use common equipment; the properties of a task, which for example allow job autonomy; and the worker's personal needs, mostly in form of a monetary reward but also a desire to learn new skills. Also the nature of digital work, which allows for example the automation of payment and therefore reduces administrative burdens usually associated with traditional businesses, contributes to the motivation. In addition to these, the authors also find pleasure, lifestyle integration and the satisfaction from applying skills and experience as motivation. Similar

motivating factors are found in Gadiraju et al (2014), reporting that online micro-tasks are done by workers mostly because they are easy to complete, the topic is interesting to them, they have a lack of alternatives, it is less time consuming than other forms of work, and the work yields a high reward relative to the invested effort.

Access to social protection

In a study by the ILO, Berg (2016) analysed financial security and social protection of AMT workers in India and the United States. According to their data, 24.9% of American and 49.5% of Indian AMT workers are not covered by healthcare. 72.1% of American and 71.8% of Indian AMT workers do not regularly contribute to a private pension fund. The author notes that the dependence of a worker on platform work is highly related to their financial security and social protection coverage. Workers who do platform work supplementing another job are usually covered by social protection in their first job, while workers who only have a job in the platform economy usually have a weaker financial situation and tend to be more dependent on support by family members.

Aloisi (2015) reviewed the employment situation of AMT workers. They refer to the AMT participation agreement which states that AMT workers are not entitled to any benefits that the requester may make available to its employees, creating a situation in which all risks are shifted to the worker rather than the requesting company. This means that workers have no formal employment relationship with the company and are therefore not covered by any corporate social protection, unless they insure themselves privately.

Huff and Tingley (2015) find that 8.72% of their survey respondents on the AMT platform see themselves as independent contractors, while 2.2% see themselves as business owner or operator. The other respondents do not identify their AMT work as their main work and state their other occupations. From this follows that a large number of workers does not have a primary employment relationship with the company, so they are most likely insured via their other occupation or have to privately care for insurance.

Autonomy and control

Autonomy and control over their work is one of the motivations why people chose to engage in platform work. Online micro-tasks offer a high level of autonomy, since they can usually be performed anytime, anywhere. This is confirmed by Kaufmann et al (2011), who find that the autonomy in AMT platform work is the second highest ranked motivating factor after pay.

Deng et al (2016) find that amongst full-time employed platform workers, 92% see autonomy as an important value of platform work. This includes the possibility to freely reject tasks, which would not be possible in a traditional employment relationship, and the option to work anytime, anywhere, as many tasks can be performed via a smartphone app. At the same time it is important to stress that this degree of autonomy is only feasible for workers who are performing either very well (that is, have sufficient assignments that they can fulfil) or do micro-work only as a part-time job. Workers who depend on income from their platform work will probably not have the option to choose freely which tasks to perform.

Prassl and Risak (2015) find that control on online platforms is exercised via a ‘digital reputation’ mechanism and thereby by ‘wisdom of the crowd’ rather than individual or subjective mechanisms. Upon completion of tasks, workers are given a rating, making it more or less likely for them to get assigned consecutive tasks. They also argue that the unproportionate high level of control that the platform has over the workers (for example in terms of wage setting) stems from the unclear legal status of platforms and the contractual situation this results in.

Wood et al (2019) reviewed autonomy and algorithmic control focusing on workers in Southeast Asia and Sub-Saharan Africa, based on semi-structured interviews. They find positive and negative effects of this type of control: While it offers high levels of flexibility and autonomy to workers, they find at the same time evidence that it results in lower pay, social isolation and a higher working time intensity. This difference to conventional work

relationships makes clear that algorithmic control is not just a resemblance of traditional control frameworks, but a new form of control, with advantages and disadvantages.

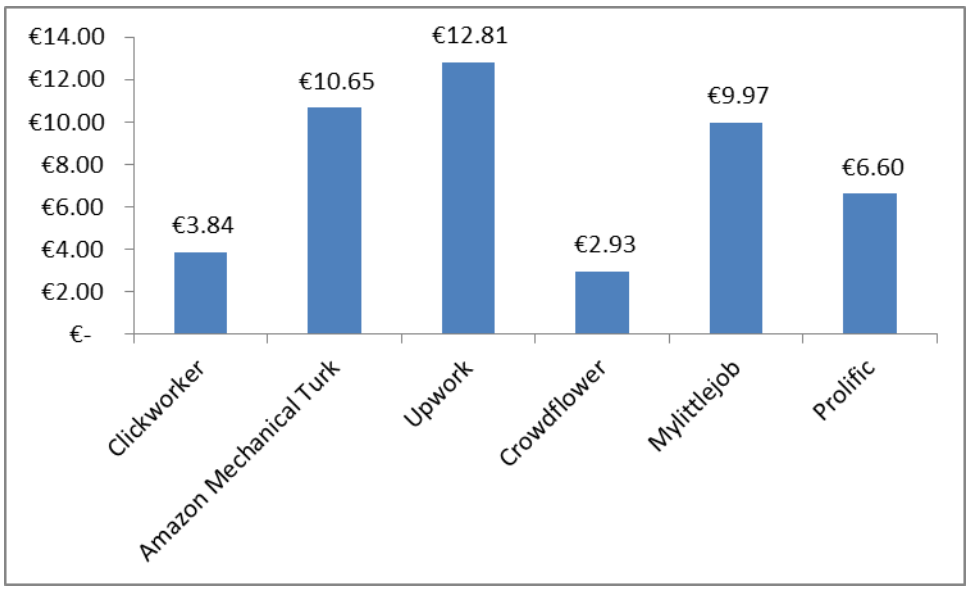
Engels and Sherwood (2019) remark the unlevelled distribution of supply and demand, referring to research findings that suggest that a small number of service requesters are responsible for most of the service requests on AMT. They also note that the ex-ante price setting of service requesters reduced negotiating power on the side of the platform workers, who can either accept or reject a task, but have no way of negotiating a higher remuneration.

Shibata (2019) looks at the autonomy in online micro-tasks from a cultural political economy approach. The author argues that the increased level of autonomy is in fact a 'fictitious freedom', that is, it is an attempt to make labour markets more flexible and productive, while workers are locked in low-skilled and low-paid 'super-fragmented' tasks. From this follows that the increased level of autonomy in online micro-task work brings both benefits and costs, where the benefits are probably more short-term (higher autonomy leads to more satisfaction) and the costs more long-term (it is difficult for workers to enter into more secure work relationships).

Earnings

Similar to other forms of platform work, workers on online micro-task platforms are paid by the number of completed and accepted tasks. Clients usually have the option to reject payment for a completed task if it was not fulfilled up to their expectations. The rationale behind these rejections is not always transparent. Earnings can therefore vary due to the availability of suitable tasks, the competition for tasks, and the (perceived) quality of work that is delivered. Also, the amount of unpaid working time (for example, the time used to search and bid for a task), will have an impact on the overall earnings of a worker.

Figure 1: Average hourly wages on selected online micro-task platforms reported between 2016 and 2017



Source: Author's own compilation based on http://faircrowd.work/platform-reviews/

Fair Crowd Work, a trade union initiative, publishes reviews of different platforms alongside earnings data based on a survey conducted between 2016 and 2017. For AMT workers, an average hourly wage of €10.65 (median: €8.67) is found, however some respondents report hourly earnings as little as €3.77. 60% of the survey respondents report to have experienced non-payment of their delivered tasks at least once; however, the majority says it happened only once or twice. Responses from survey participants also show that

experienced workers develop strategies to mitigate the non-payment risk, for example by not accepting tasks from requesters that are new to the platform. While for Clickworker the hourly average wage at €3.84 (median: €2.92) is much lower than the one for AMT workers, Clickworker respondents have been less likely to experience non-payment (41% of survey respondents have experienced non-payment at least once).

Table 2: Average earnings on different online micro-task platforms

Publication	Average earnings	Platform considered
Lehdonvirta (2016)	$79.00 - $125 per week	Amazon Mechanical Turk, CloudFactory, MobileWorks
Hara et al (2018)	~$2 per hour	Amazon Mechanical Turk
Fair Crowd Work (2019)	€2.93 – €12.81 per hour	Various micro-task platforms
Berg et al (2018); ILO survey of crowdworkers (2015, 2017)	$3.00 (€2.70) – $8.41(€7.67) per hour	Various micro-task platforms
Ross et al (2010)	$1.67 (€1.50) - $1.97 (€1.77) per hour	Amazon Mechanical Turk

Source: Author's own compilation

Lehdonvirta (2016) finds that a typical weekly microwork income for an AMT worker from the United States is $79. Depending on the level of dependency on microwork, earnings can vary: In the United States the share of workers who do microwork on a causal basis (that is, in addition to income from another job) is higher than for example in the Philippines or Nepal, where the share of workers who earn their primary income from microwork is much higher. Consequently, earnings from microwork for the latter type of worker are usually higher.

Hara et al (2018) analysed earnings data of 2,676 AMT workers, taking into account unpaid working time that is spent searching for tasks or tasks that are either rejected (and hence not paid) or not submitted at all. Their analysis finds a median hourly wage of around $2 (around €1.80) and overall 96% of AMT workers earn below the U.S. federal minimum wage. The analysis also shows that taking on higher paying tasks such as video evaluation increases the hourly wage, while lower paying tasks such as data transcription decrease the hourly wage; but overall it is the amount of unpaid work that is pushing hourly wages down.

Berg et al (2018) used survey data covering five different platforms (AMT, CrowdFlower, Clickworker, Prolific, Microworkers) to find that on average, in 2017, a worker on these platforms earned $4.43 (€3.99) per hour. Looking at the breakdowns per platform, this amount can however vary significantly. While for AMT in the United States average earnings are $8.41(€7.67) per hour, on AMT India the figure is only $3.40 (€3.06) and as little as $3.00 (€2.70) on the *Microworkers* platform. The survey data also show that not all work that was performed is in fact paid, with a strong impact on hourly wages: When looking at earnings of both paid and unpaid work, hourly wages are reduced by 20% to 25% compared to figures where only paid work was taken into consideration.

Ross et al (2010) used six samples of AMT workers over a period of 20 months in 2008 and 2009, where the majority of participants represented workers from the United States (between 56% and 83%, depending on the period). They calculate an average hourly wage by dividing the weekly earnings reported in the survey by the number of overall hours spent doing platform work. Depending on the survey period, this results in $1.67 (€1.50) to $1.97 (€1.77) per hour

Work intensity and working time quality

According to survey data in Pesole et al (2018), around 43% of non-professional workers who perform work other than on-location tasks agree to the statement 'I often face stressful situations'. This suggests that online micro-task work can lead to stressful situations with high work intensity. This is in line with Wood et al (2019) who found that 54% of respondents in their survey state they have to work at very high speed, 60% need to meet tight deadlines and 22% experienced pain as result of their work. This indicates that stress levels in this kind of work are high, as the absence of regular paid working hours requires workers to work as fast as possible.

Findings published by the Fairwork Foundation, based on data gathered by researchers working for *IG Metall* (the German Metalworkers' Union), Encountering Tech, and M&L Communication Marketing GmbH between October 2016 and March 2017[2], give insights in how workers perceive their working time quality. Referring to AMT, 14% describe their work as 'always satisfying', and 28% believe it is 'more than half of the time satisfying'. Only 4% never feel satisfaction from their AMT work. 94% believe their work is never physically dangerous or harmful, some however have concerns it might be ethically questionable, with 16% of respondents thinking that their work is more than half the time ethically questionable. Respondents to the survey also complain about undesired breaks due to the unavailability of tasks in that moment, while on other occasions they are required to accept a task as fast as possible, as it might otherwise be taken by another person.

Interviews conducted by Moussawi and Koufaris (2015) show that many AMT workers who do platform work not as main source of income use their free time to work on tasks. At the same time, some workers do consider their work for AMT not as typical work, but as something they enjoy, for example by filling out a survey. This finding suggests that stress and work intensity vary by dependency on platform work: People who engage in online micro-task work out of necessity might find it more stressful and experience higher work intensity as they have to make ends meet, while people who do not depend on it might find it less stressful as they could terminate their engagement at any time.

Deng et al (2016) investigated platform worker's satisfaction with their work. While some state to be extremely satisfied due to flexibility and autonomy, others complain about rejection of their completed tasks which is filling frustration.

Skills and career prospects

Findings published in Berg et al (2018) show that online micro-tasks usually require only a moderate skill level. Some interviewed workers stated that the only qualification they needed for their job was to speak English. Many tasks, such as content access, do not require any sort of own input from the worker and are therefore not perceived as challenging. The low skill level required for this kind of work does not mean however that workers are unskilled.

Interviews with AMT workers conducted by Moussawi and Koufaris (2015) suggest that online micro-task work often does not benefit their primary career skills, but had positive impact on other skills needed for platform work, such as computer and web skills, typing skills, and transcription skills.

Rani and Furrer (2019) used survey data and interviews with workers on five globally operating microtask platforms to show that experience only has limited effects on career prospects of platform workers, as higher levels of experience do not guarantee the acquisition of more complex tasks. From this follows that workers cannot progress in their career despite extending their experience. The authors also argue that there is a mismatch between the skills required for tasks on online micro-task platforms and the skills held by workers who perform the tasks. Education levels are usually higher than what would be required to perform a task on as platform.

[2] See http://faircrowd.work/platform-reviews/platform-review-information/

Representation and organisation

Since online micro-tasks are performed from remote workplaces without direct contact to other workers, the process of organising labour is more difficult compared to some other forms of platform work. Services provided on-location such as food delivery allow workers to meet their peers when they pick up food at a restaurant or while waiting in hubs. They are also able to build up relationships with the client, such as an Uber driver who is re-hired by the same customer because they provided a satisfactory service. Online micro-workers by contrast can meet their peers usually only virtually, and since their assignment to a customer is solely determined by an algorithm, they have no opportunity to build up a relationship. Also the anonymity of online platform workers makes it more difficult to bond: On many online micro-task platforms, workers and clients identify each other only via an ID and have no direct contact with each other.

Webster (2016) argues that the precarious nature of micro-work and the individualisation of work contracts leads to an inability to organise. This situation is used as a disciplinary device by service requesters who have access to a replaceable workforce and can therefore exercise leverage over each individual worker. Graham and Woodcock (2018) note that the nature of platforms to operate across borders and the asymmetry of information between platform workers and the platforms make organisation more complicated compared to conventional employment relationships.

Wood et al (2018) looked at Southeast Asia and Sub-Saharan Africa to analyse the organisation among online freelancers and micro-task workers. They consider the high international fragmentation and distribution of the workforce as an important barrier for organisation. To overcome this barrier, workers use communication via the internet, such as forums and Facebook groups, to communicate and organise. A Facebook group in Kenya counts for example 39,100 members. Fragmentation is however still a problem: Social media groups are usually for a specific platform, a specific region or a specific occupation. It is therefore much more difficult to engage in collective action compared to a traditional trade union which could mobilise a whole sector.

Concluding remarks

Within the spectrum of platform work, some of the best-known platforms – such as Amazon Mechanical Turk – mediate online click-work. Tasks mainly refer to small scale, lower-skilled routine work and often attract workers with limited employment alternatives as an opportunity to earn income.

In general, employment and working conditions in online click-work are not very favourable. Due to the characteristics of the tasks and the mechanisms of the platforms, earnings tend to be low and competitive, with high potential for unpaid search time for suitable tasks. Work intensity is high and can be stressful. Flexibility, which is often promoted as one of the main advantages of platform work, depends on the worker's motivation to engage in this type of work, and can be limited through algorithmic control. Opportunities for skill development and career advancement are limited, mainly due to the scale and scope of tasks.

On the positive side, there is a low risk for non-payment by clients, hence a good income predictability once tasks have been assigned. Furthermore, in spite of the mentioned high work intensity and partly low working time quality, online click-work can contribute to a satisfying work-life reconciliation if workers enjoy the flexibility to choose when to work.

Table 3: Overview of general impact of online click-work on working and employment conditions

Working and employment conditions	Impact
Autonomy and control	Strongly depends on the workers' motivation to engage in and dependency on platform work
	Strong algorithmic control and importance of rating mechanisms
Earnings and taxation	Competition pushes down earnings
	Low skill level required has some risk for a race to the bottom as regards prices
	Low likelihood of non-payment by clients
Work intensity and working time quality	Perceived need to be continuously available to take advantage of good task offers, resulting in being mentally occupied with tasks and missed opportunities when not working
	Working time duration and schedule strongly depends on workers' motivation to engage in and dependency on platform work
	Unpaid search time
	Stressful, working at high speed, tight deadlines
Physical environment	Risk of physical health impacts with visual fatigue or musculoskeletal problems
	Limited information and support provided by the platform regarding health and safety standards
Social environment	Limited relationship between worker and platform problematic in case difficulties emerge
	Potential for discrimination through algorithms and ratings and lacking mechanisms to address this
	Good for work-life reconciliation
	Risk of family conflicts due to unsocial working hours and interference with personal plans
	Little interaction with other workers and risk of isolation
Skills and training	Limited learning opportunities for occupational skills, limited training provision by the platform
	Low-skilled tasks with little task identity and significance; some potential for deskilling
	Overqualified workers
Prospects and career development	Effects on transitions (stepping stone versus lock-in) unclear
Representation	Challenged by the international, virtual and fragmented character of the activities

Source: Author's own compilation

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All Eurofound publications are available at www.eurofound.europa.eu.

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