

EUROSHIP



closing gaps in European social citizenship

The digital transformation of work and associated risks

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- i) to advance the knowledge base that underpins the formulation and implementation of relevant policies in Europe with the aim of exercising the EU social rights as an integral part of EU citizenship and promoting upward convergence, and
- ii) to engage with relevant communities, stakeholders and practitioners in the research with a view to supporting social protection policies in Europe. Contributions to a dialogue about these results can be made through the project website euroship-research.eu, or by following us on Twitter: @EUROSHIP_EU.

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Abstract

This report provides a summary and assessment of the existing literature and data on the extent of digital forms of employment across Europe in a global context. It illustrates the variability in how it is defined and how it is growing.

On one hand, optimists point to the attractions and relative ease in finding employment on digital platforms; on the other hand, more critical perspectives argue that these employment contracts can result in exclusion from social protection systems. As a result, particularly for those with lower skill forms of digital employment, this can undermine social citizenship as they lack comparable employment rights, or when they are unemployed they have less entitlement to social protection and welfare benefits.

The collective potential of policy makers and trade unions to address these challenges is recognised in relation to the imbalance of bargaining power and the regulatory governance to bridge these gaps in citizenship entitlements. There is increasing evidence that competitive pressures arising from the use of new employment patterns on these platforms are also being adopted by more traditional companies.

An additional challenge to digital access to citizenship rights is through which this is taking place is related to the introduction of digital public services. While these services are intended to enable access to e-government, for those with limited connectivity they may find themselves increasingly disconnected from these services and benefits. This dimension is discussed in more detail in D8.1 where we compare developments across the EU using evidence from the Digital Economy and Society Index (DESI) over time to plot change with a particular focus on the public sector and e-government.

In accordance with the broader ambitions of the EUROSHIP project, the risks of poverty and social exclusion arising from these emerging business models and welfare service delivery models, demonstrate the urgent need for a regulatory response within national and EU jurisdictions.

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List of acronyms

COLLEEM Collaborative Economy and Employment Survey

EU European Union

GMB General trade union in the UK

ILO International Labour Organisation

OLI Online Labour Index

UK United Kingdom

WEF World Economic Forum

Introduction

There is a burgeoning literature seeking to understand the size, shape and growth of digital labour markets. The pandemic has amplified and further exposed existing regulatory gaps highlighting the challenges for social citizenship associated with emergent digital labour markets. The risks of disenfranchising workers, exacerbating inequalities and undermining the opportunities they have for full and effective social citizenship is assessed for the EUROSHIP partner countries: Norway, UK, Spain, Estonia, Germany, Italy and Hungary.

The evidence available indicates that there is a considerable variability in the forms and extent of employment through digital and online platforms including both for online jobs and on-location work mediated by these platforms.

The motivations for those undertaking digital employment are outlined alongside the difficulties workers experience in relation to their uncertain employment relationship. While the improved flexibility that these emergent business models can offer may be appealing, the evidence shows how this often presents as a double-edged sword with some benefits and other disadvantages

The need for fair working standards, access to social protection systems and collective support before the pandemic have been amplified by periods of lockdown and the erratic effects on the labour market. Undertaking digital employment directly affects how individuals participate in public and social life. The evidence has shown the risks workers face '*and the exclusionary consequences for disadvantaged citizens*' (Schou and Svejgaard Pors, 2019: 464). While digital employment may be relatively marginal, it is growing in an unregulated space with significant risks for those engaged in these emergent labour markets, particularly in periods of economic turbulence.

These recent developments only highlight the previously existing imbalance of bargaining power and the need for clear regulatory standards that are being contested across a number of European jurisdictions and present considerable challenges for the European Commission. Regulatory reform cover employment protection, minimum wages, working hours, health and environmental safety, as well as workers voice and influence in implementing these changes.

The provision of digital employment solutions is also generating new problems extending to digital forms of management within standard employment relationships, demonstrating its potential to reach far beyond those engaged in platform labour. The patterns that are emerging and the gaps that are present highlight risks in terms of inequality and social exclusion. The seemingly irrepressible wave of technological transformations in work is overwhelming considerations of equality, fairness and inclusion in the wake of this drive for digitalisation at work. This report provides the initial phase of examining these issues with the EUROSHIP project.

1. Employment trends in the digital labour market

Since the 2000s new forms of employment mediated by digital labour platforms have emerged across Europe and the globe (Mandl et al., 2015; Neufiend et al. 2018; ILO, 2021). However, efforts to ascertain the size and shape of the digital labour market have been complex and challenging. A variety of new methodologies are being developed to capture this dynamic alongside more conventional statistical measures aimed to monitor these developments. Here we outline some of the most recent research attempting to define and quantify the size, shape and growth of platform labour.

This data can begin to identify the proportion of populations engaged in such work, with reference to variable aspects such as the frequency and volume of hours worked. Nevertheless, some of this knowledge is in its relative infancy while new innovative measures are being experimented with in attempts to capture this more accurately and consistently across countries (see also O'Reilly and Verdin 2021c D8.1). Based on a review of existing empirical evidence and the challenges it presents, the report concludes by outlining some of the major risks associated with employment rights, benefits and working conditions associated with work mediated by digital labour platforms.

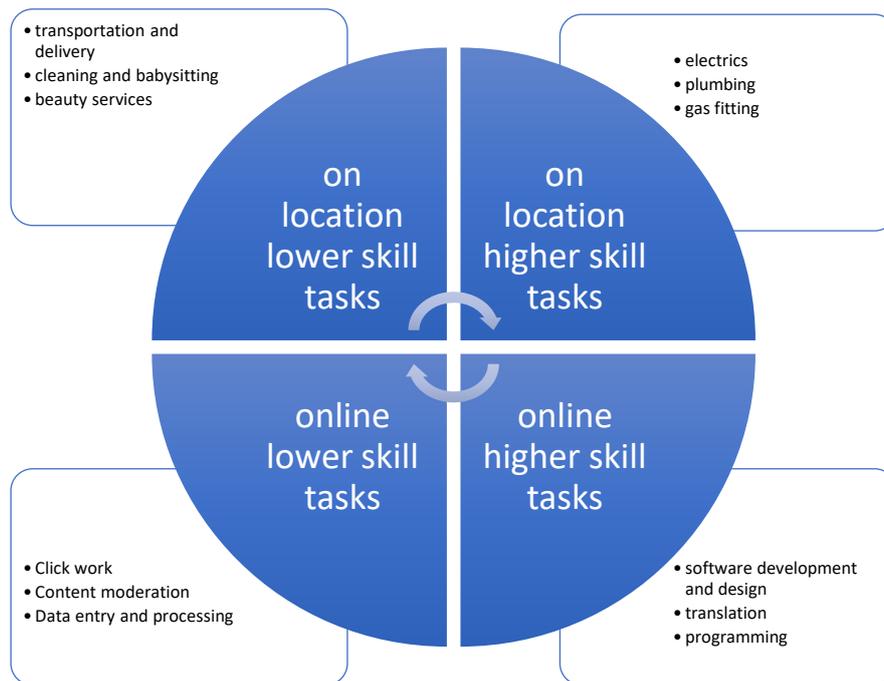
What does digital employment mean?

The concept of digital employment or platform labour does not have a universal definition and remains contested in the literature. Much of this initial debate has focused on platform work, although these practices are increasingly being adopted in mainstream conventional firms who are having to adapt to competitive pressures created by these digital competitors. Here we focus on definitions of digital employment mediated by these platforms. Hauben et al (2020: 13) define this as:

'all paid labour provided through, on, or mediated by an online platform in a wide range of sectors, where work can be of varied forms.'

The platform provider acts as an intermediary between organisations and individuals seeking labour and workers looking for paid work. One of the most contentious legal issues around these relationships has been the extent to which the platform is purely a facilitator of labour exchange, or an employer in their own right. The implications of this contestation lies with responsibility for social protection for these workers which is discussed in more detail later in this report. For present purposes, with the aim of monitoring and measuring these different forms of employment facilitated by these platforms, we can distinguish between work that is entirely on-line, or is carried out on-location (see figure 1).

Figure 1: Platform work typology



Source: Adapted from Hauben et al. (2020)

Figure 1 subdivides types of employment according to where they are performed. On-location refers to work that is carried out in person at a specific location. The platform acts as a mediator between the consumer requiring the service and the worker who performs the task, i.e. driving or delivery work, cleaning and personal care work. Online work is entirely web based, and independent of location from the organisation requesting these tasks and the workers performing them. The platform mediates between these parties. The work is matched, carried out and paid digitally, i.e. data entry and translation services. There is a further subdivision within each of these categories, recognising the low and high skill entry requirements as illustrated in Fig. 1.

Platform work offers solutions for both economic demand from both individual consumers and/or businesses and labour supply looking for paid work (i.e. platform workers). The advantages for both demand and supply are as follows. For businesses using platform workers they are: able to access a large pool of potentially international labour; benefit from quick completion of work; and reduced costs of labour. For individual consumers they have easy access to a local pool of labour services. For those seeking paid work: there are less barriers to entry; those from poorer countries may access higher wages, particularly for those in higher skilled roles (Lehdonvirta, 2021)¹; there is flexibility and autonomy to manage work around other commitments; and they have the potential to earn a secondary or additional income (Broughton et al., 2018).

The reality behind worker motivations is complex and varied. Dependant on the level of skill the job requires, workers typically exercise variable degrees of control over their work. The

¹ <https://digit-research.org/events/digit-events/digit-debates-16-june-2021/>

issue of control over their work has been one of the major contentions in legal cases questioning the extent to which these jobs are genuinely independent. Flexibility is often at the behest of expectations arising from the platform, particularly for those in the lower skill segment of the labour market.

Within this complex and at times contested definition of what constitutes platform labour there is further complexity in attempting to measure the size of the digital labour market. This challenges include identifying: the number of hours worked; the potential for individuals to be engaged in work across numerous platforms; and the variability in the reference period used to ascertain regularity of work.

Additionally, labour market statistics and measures may not capture workers that are using platform work as a secondary income. Establishing this information from company data may also be misleading as work may fall below tax reporting purposes, accounts may be used by more than one person, and there is variability in whether and how companies report this pay data (Tubaro et al., 2020).

Size and location of the digital labour market

Studies have used a variety of methods to examine the extent of digital forms of employment and capture the *'elusive phenomenon'*. The lack of comparability between research results reflects the inconsistency in the countries studied and the variable methodologies they use.

The most cited study, according to Hauben et al. (2020), uses the COLLEEM (Collaborative Economy and Employment) survey and covers fourteen Member States to assess the shape and growth of the platform labour market (Pesole et al., 2018; Urzi Brancati et al., 2020).² Their research shows that there has been a steady growth in those undertaking platform work across Member States as secondary, marginal and sporadic employment. The exception to this finding of ongoing growth are those they categorise as *'main'* platform workers (Urzi Brancati et al., 2020: 17).³ The COLLEEM survey findings suggest 1.4% of the working age population are engaged in platform work as their main form of employment. This corresponds with other research which indicates that platform work is often used in conjunction with other forms of employment as a strategy to *'piece together an income'* (Huws, 2017: 10; Hauben et al., 2020: 19).

Interestingly research carried out prior to the March 2020 onset of the covid pandemic showed that the volume of online platform workers exceeded the numbers performing on-location platform work in all countries (Huws et al., 2019: 24-25). Within this broad trend

² The COLLEEM research project was launched in January 2017 by the European Commission's Joint Research Centre and Directorate General for Employment and Social Affairs to investigate the collaborative economy and employment. COLLEEM is an online panel survey of internet users aged between 16 and 74 from Croatia, Czech Republic, Finland, France, Germany, Hungary, Ireland, Italy, Lithuania, the Netherlands, Portugal, Spain, Sweden, Slovakia, Romania, and the United Kingdom. The survey was carried out in 2017 and then again in 2018. <https://ec.europa.eu/jrc/en/colleem>

³ 'Main' platform workers are defined as those receiving 50% or more of their income from platform work and/or those working more than 20 hours a week and receiving 25-50% of their income from platform work. This finding relates to data from the 2017 and 2018 COLLEEM survey results.

there is significant national variation in the overall uptake of platform work (Berg et al., 2018; Huws et al., 2017; Pesole et al., 2018; Albert et al. 2021; Halvorsen et al. 2021; Ibáñez et al. 2021; Unt et al. 2021; Grages et al. 2021; Arciprete et al. 2021; Verdin and O'Reilly 2021).

An overview of the literature identifies the variable extent of participation in platform work between countries. Huws et al (2019: 3) find that participation levels in the UK, Germany and Hungary are at the lower end, while Italy, Spain, and Estonia have amongst the highest levels in Europe. With reference to this data, they conclude suggesting that countries with lower average wages have higher instances of platform workers. They go on to suggest that the most likely explanation for these higher instances of platform work in Central Eastern and Southern Europe is poverty (Huws et al., 2019). This accords with the relatively low level of platform workers and stagnant growth of digital employment reported in Norway (Dølvik and Jesnes, 2018: 13).

However, the COLLEEM survey research from Pesole (2018: 3) is at odds with these findings. While the countries studied are not all the same, they suggest the UK has the highest incidence of platform work, accompanied by Germany, Spain, and Italy. Conversely Hungary and Slovakia have low instances of platform work, contrary to the findings of Huws et al (2019). Recent work from Lehdonvirta (2021) also suggest that some platform workers have very high levels of income and skills.

The disparity between results and lack of comparability demonstrates the “*diverging terminology of digital labour, different survey methods [and] sampling problems*” (Makó et al., 2020: 169). What is evident from these different findings is the significant heterogeneity in the way platform work is measured, its take up, the volume of hours typically worked and how this varies between countries. This diversity presents significant challenges for those trying to regulate these relationships with regard to social right risks both within and across European jurisdictions.

Growth trajectory of platform employment

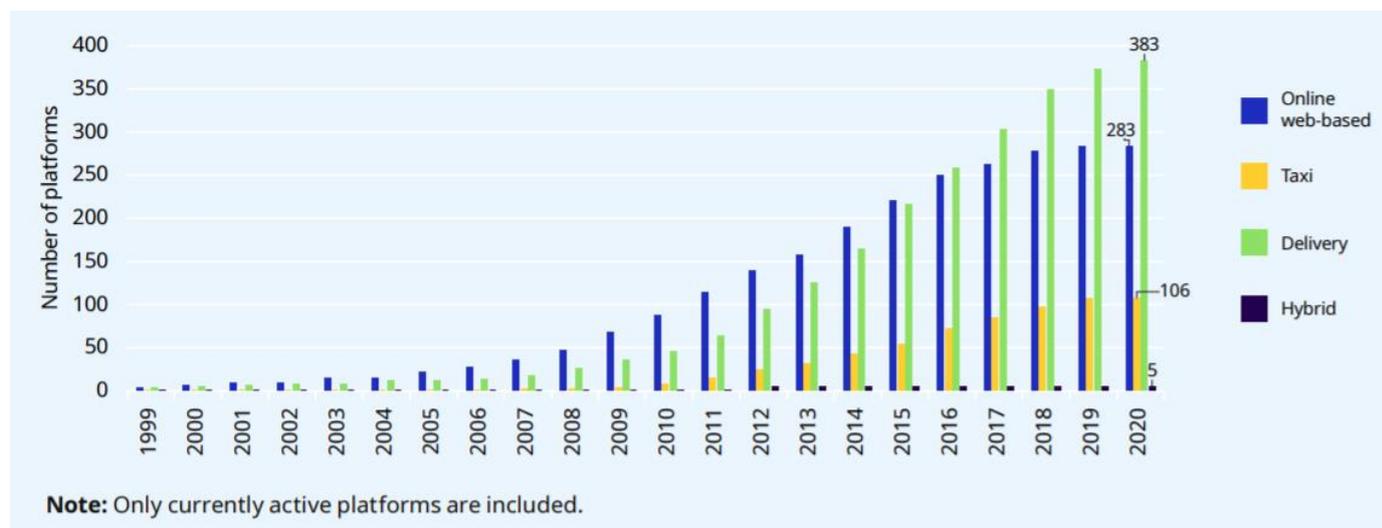
The lack of consensus over how to define and measure the extent of digital employment means the data is not consistent and can only be used to broadly indicate the number of workers finding employment on these digital platforms. Nevertheless, there are suggestions of ‘*exponential growth*’ of platform employment (Howcroft and Bergvall-Kåreborn, 2019). UK based analysis has found that the level of platform workers was around 5 million in 2016 (Howcroft and Bergvall-Kåreborn, 2019) and between 2016-2019, for those working at least once a week, this doubled in size to 9.6% of the adult population (SSCU and HBS, 2019). While the majority of those were using digital employment to top up their income, 48% defined themselves as full-time platform workers (SSCU and HBS, 2019).

In terms of quantifying the size of the labour market with precision, Kässi and Lehdonvirta (2018) have attempted to resolve the insufficiency of existing labour market statistics and indicators. The Online Labour Index (OLI) was created to address these inconsistencies (<http://ilabour.oii.ox.ac.uk/online-labour-index/>). The OLI provides a global measure of the demand for and use of fully digital platforms, where the entire transaction occurs online (i.e.

Amazon Mechanical Turk). To create the Index a census of all platform companies of ‘non-trivial size’ was combined with information relating to the number of active user profiles, job vacancies posted and tasks completed. The resultant data set enables the global tracking of supply and demand of platform work by country and occupation type in near real time. The Index also evidences the global spread, regional trends and commonalities in the type of platform work. The analysis shows that software development and technology are the most sought-after skills (accounting for one third of all platform jobs), followed by creative and clerical work (Kässi and Lehdonvirta, 2018: 247).

The OLI evidences that online freelancing work has grown by 11% each year for the last five years. Online global workers are now estimated at 19 million, with 5 million of those working full-time (Kässi et al., 2021). Figure 2 charts this growth, alongside that of taxi and delivery services, through their identification and analysis of 777 active platforms up to January 2021.

Figure 2: The growth of active digital labour platforms globally (selected categories 1999-2021)



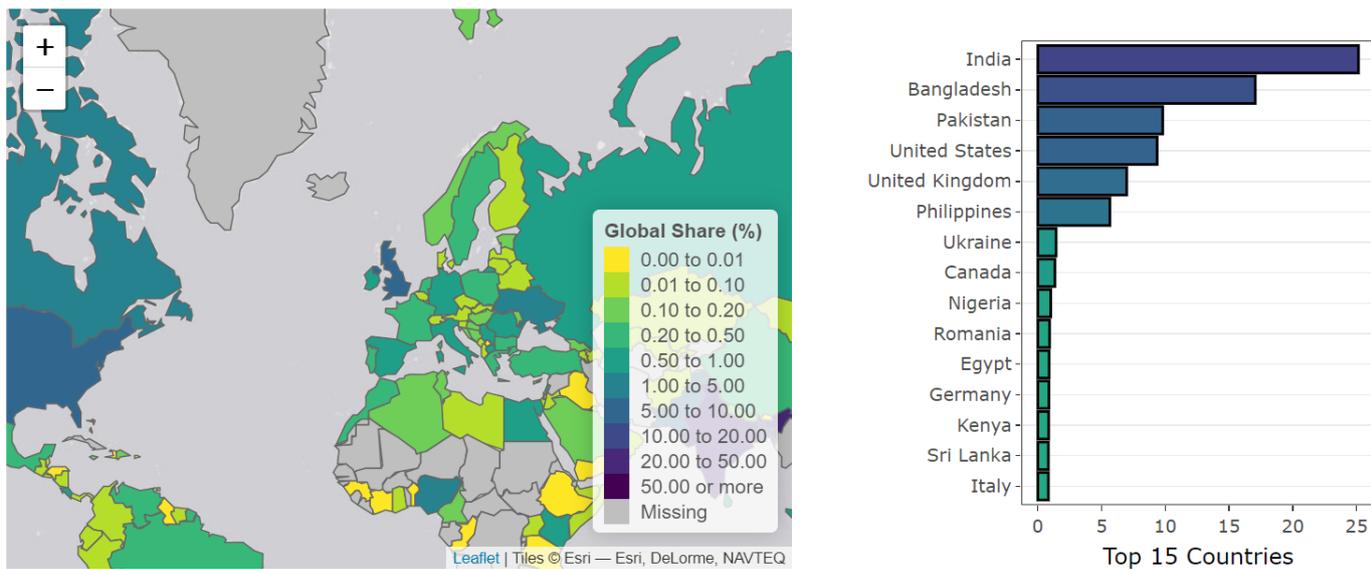
Source: (ILO, 2021): 47.

The OLI tracked the growth trajectory of selected platforms through the Covid-19 pandemic (March 2020 - ongoing). Consumer delivery platforms for food and goods have continued to increase, while other forms of platform labour slowed; Schor (2020) suggests that as more and better paid jobs become available in the economy the willingness to look for work on these platforms has declined in the US.⁴ As countries emerge from the Covid crisis it will be interesting to see if and how these trends are affected by the increase in remote working in standard employment relationships. In addition, more conventional firms are also beginning to adopt the practices of these platform firms as the innovate with new forms of service delivery and different employment conditions (Rolf, O’Reilly and Meryon 2021; Hunt and O’Reilly, 2021).

⁴ <https://digit-research.org/events/digit-events-1/what-do-platforms-do/>

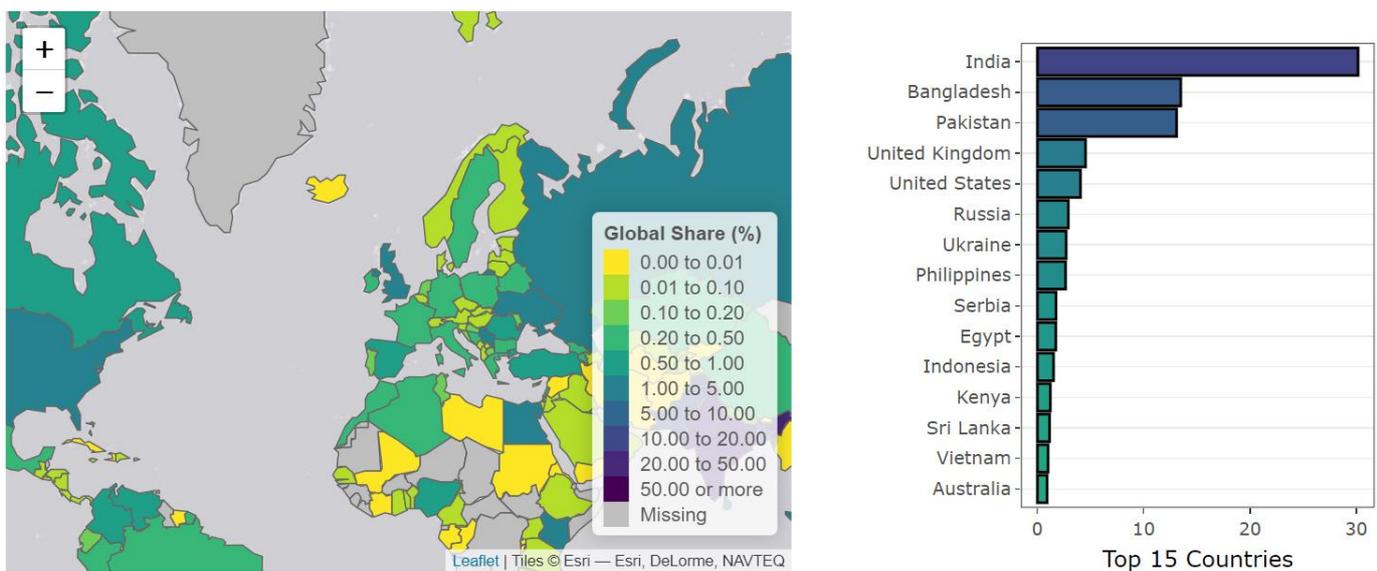
The online labour observatory of the OLI provides a useful data visualisation tool to show the spread of both supply and demand of online work, and how this has changed globally since 2017. With reference to labour supply, figures 3a and 3b illustrate the changing global spread of where online labour has been performed. This indicator suggests that European labour markets tend to have relatively lower levels of penetration in comparison to Asia and Anglo-Saxon countries. On one hand this could mean that it is less easy for workers in Continental Europe to access work through these platforms. But, on the other hand the inequalities resulting from this type of labour may also be less extensive than in countries where this work is more common.

Figure 3a: The global spread (%) of online labour 2017



Source: <https://onlinelabourobservatory.org/oli-supply/>

Figure 3b: The global spread (%) of online labour 2021

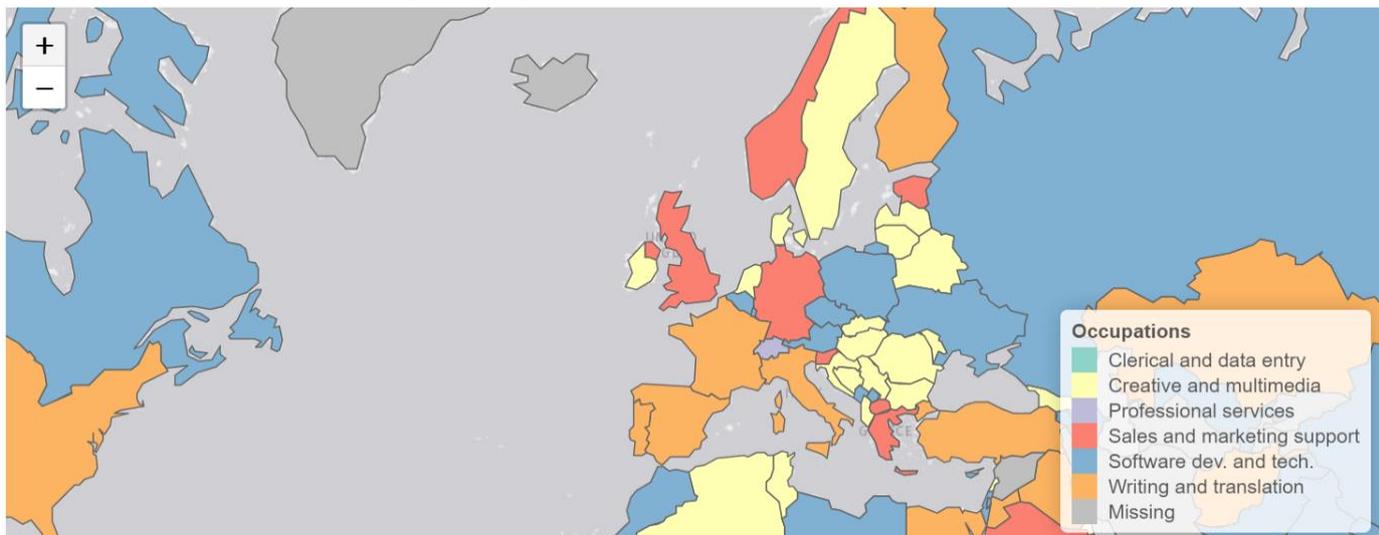


Source: <https://onlinelabourobservatory.org/oli-supply/>

The labour force share of platform worker has increased since 2017 in India, Pakistan and Russia alongside the relative decline for countries such as the US and Canada. Concern over these differences for European workers revolve around issues of social dumping, where these workers are employed on inferior terms and conditions for example to those in the EU. Businessess offering jobs for online labour are largely based in the US (41%), followed by the UK (8%) and India (6%) (Stephany et al., 2020). The implication for European workers are either that it is less easy for them to access these potential jobs, or if they do, the terms and conditions of employment might be quite different to those within their own jurisdictions, an issue which is currently highly litigious.

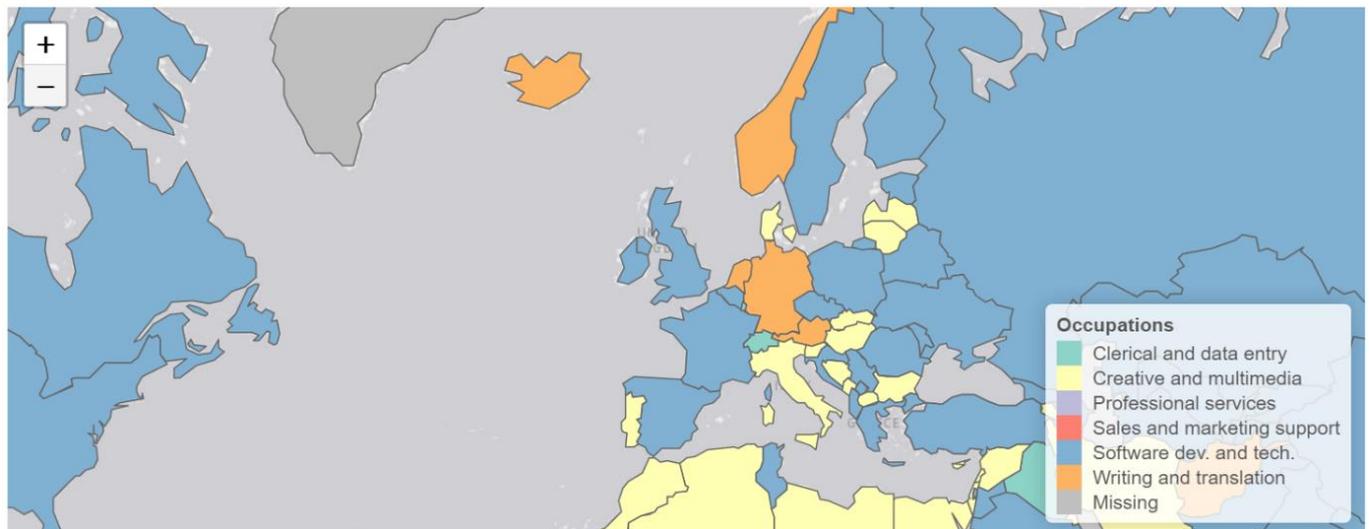
The OLI also enables cross-national comparison of the type of work carried out and how this too is changing over time. Figures 4a and 4b demonstrate how the type of work has shifted between 2017 and 2021 in Europe.

Figure 4a: Online occupations by country 2017



Source: <https://onlinelabourobservatory.org>

Figure 4b: Online occupations by country 2021



Source: <https://onlinelabourobservatory.org>

Figures 4a and b demonstrates trends in the type of work carried out, for instance in 2017 writing and translation were most prominent in southern Europe, while sales and marketing support were the most popular occupations in the northern European countries of the UK, Norway and Germany. The 2021 analysis tracking the changing utilisation of online labour shows the growth of software development and technology, relative to other occupations. Some of these jobs are associated with more skilled occupations, and better pay (Lehdonvirta 2021), although this is a relatively under investigated area of research.

The existing quantitative evidence illustrates the overall trajectory of growth of platform work within and outside Europe, alongside divergent patterns of development between countries and occupations. Despite this growing body of evidence there still remains a need to understand the consequences of this type of work for those engaged in it, in terms of social protection and working conditions. We examine the characteristics of platform workers in section 2 before assessing how regulatory and collective frameworks are attempting to address these challenges nationally and internationally in section 3.

2. Platform Worker Profiles

Available evidence of the characteristics of platform workers indicates some common broad trends between countries related to age and education. According to the International Labour Organisation (ILO, 2021), the average age of platform workers internationally is thirty-three years. This corresponds with findings from Europe (Pesole et al., 2018; Urzi Brancati et al., 2020; Berg et al., 2018; Bonin, 2017; Lepanjuuri et al., 2018: 14; SSCU and HBS, 2019). Workers are more likely to be highly educated, particularly those from developing countries (ILO, 2021; Berg, 2018; Hauben et al., 2020: 20; Lepanjuuri et al., 2018: 14).

However, greater differences in Europe suggest that platform workers are more likely to be non-nationals (Urzi Brancati et al., 2020: 4). Research also suggests that low skilled on-location workers are more likely to come from marginalised and vulnerable groups, reflecting and further embedding established socio-economic, gendered and ethnic inequalities (Hauben et al., 2020: 20). The evolution of intersectional inequalities within these emerging labour markets is therefore also concerning (Renan Barzilay, 2019; Dubal, 2021). However, the extent of public concern with these differences is very variable across the Euroship partner countries (Albert et al. 2021; Halvorsen et al. 2021; Ibáñez et al. 2021; Unt et al.2021; Grages et al. 2021; Arciprete et al. 2021; Verdin and O'Reilly 2021).

A gender analysis of platform workers shows that men are most likely to undertake this kind of work. This gender division is more marked in developing countries (Berg et al., 2018; Behrendt et al., 2019; ILO, 2021; Pesole et al., 2018; Rani and Furrer, 2019). The trajectory of platform worker growth shows that women's engagement is rising at a faster rate than men's and so the overall participation gap is closing, albeit slowly (Urzi Brancati et al., 2020).

However, participation rates are highly segregated by occupational groups and activities. For example, according to the COLLEEM survey, men are prominent in transportation (on-location) and software development (online) while women dominate in housekeeping and beauty services (on-location) and translation (online) (Pesole et al., 2018: 4).

Even where there is no difference in tasks or occupations the gender pay gap on these platforms remains significant. Adams-Prassel (2021) suggests that this may in large part be attributable to the interruptions female workers face in the context of working from home and managing on domestic demands on their time that interrupt their work flow and productivity.

The take up of platform work by gender amongst the EUROSHIP partners demonstrates significant variability between countries. While men form the majority of weekly platform workers in Germany (60.6%), Estonia (72.1%) and Spain (60.5%), in Italy women are in the majority (52.8%) (Huws, 2017; SSCU and HBS, 2019). Within the UK, analysis shows that the gender balance of platform workers has shifted. In 2016 women occupied 52.7% of platform roles, but by 2019 men were in the majority (55.8%) (Huws et al., 2019: 2).

There is very little data that allows us to distinguish between the ethnic origin or disability status of platform workers within or between European countries limiting our analysis of the intersectional effects of these types of employment largely to gender differences. However, there is an emerging literature, largely from the US that is beginning to explore ethnic differences in pay rates on these platforms (Dubal 2021); however, there is, as of yet, no substantial European evidence.

These gaps in our knowledge make it more difficult for policy makers to have a more fine grained analysis of the differential impact of platform mediated employment. Nevertheless, the growth of this phenomena has raised a number of universal concerns related to regulatory gaps, working conditions and employee representation that are discussed in section 3.

3. Policy challenges arising from platform employment in Europe

Regulatory gaps

The labour market status associated with digital forms of employment is high on the policy agenda of the EU and Member States (Hauben et al., 2020). A dependant employment relationship provides the standard reference point for most labour and social security legal and policy frameworks. Protections associated with the traditional employment relationship, such as pay rates, sick pay and holiday entitlement, and responsibility for regulations surrounding health and safety at work, are uncertain for platform workers. Operating outside of the scope of existing social protection systems, arrangements for workers are variable. This limits access to social protection systems, resulting in largely unregulated working conditions and in some jurisdictions contested litigation on the status of these workers (Neufiend et al. 2018; Deakin 2020; Rolf et al. 2021).⁵ These gaps constitute a double challenge for the future of work with some commentators suggesting that *'economic and social progress are at stake'* (Behrendt et al., 2019: 19). As per the central goal of the EUROSHIP project, understanding the risks to poverty and social exclusion these gaps present is critical in order to address them to protect social standards and living conditions.

Working conditions

The work mediated by platforms is to a large extent not new and could be seen as a form of 'putting out'.⁶ However, the way that it is accessed, mediated, managed and regulated is new and is more global. Operating beyond the dependant employment relationship, alongside the opportunities presented by digital employment there are risks for workers in terms of wages, benefits and working conditions.

Platform work can offer the ability to earn a secondary income with the promise of good wages, increased access to work beyond cultural and national barriers, and improved flexibility for carers, students and those with health needs (Broughton et al., 2018).

However, the lived reality of these opportunities is often contradictory. Research by Berg (2018) found that only 7% of workers earned the wage advertised by the platform or more. Additionally, assessment of four platforms in Europe found that median earnings for platform workers in the UK were around 50% lower than the minimum wage, 29% lower in Germany

⁵ Initial national reports for the Euroship project have started to document these debates in national jurisdictions related to issues of income, employment security and entitlement to social benefits associated with the growth of independent contractors and self employment in the gig economy (Albert et al. 2021; Halvorsen et al. 2021; Ibáñez et al. 2021; Unt et al.2021; Grages et al. 2021; Arciprete et al. 2021; Verdin and O'Reilly 2021). These topics will be followed up through qualitative expert stakeholder interviews for D8.4.

⁶ For example, spot labour markets, day contracting and 'putting out' have been evident from the earliest days of industrialisation to more recent practices in the Italian garment sector (Lazerson 1995).

and 9% lower in Spain (Rani and Furrer, 2019: 569). The '*risks of substituting a traditional sweat shop for a digital one*' are evident as with increased autonomy comes precarity, a lack of social protection coverage and lower job quality (OECD, 2017: 272).

The continued growth of digital labour platforms places increasing numbers of the workforce beyond the scope of social protection systems (Urzi Brancati et al., 2019: 4). Berg (2018) found that only three in ten workers on crowdwork platforms were covered by some form of social insurance. Their research also suggested that only 35% of workers had a pension or retirement plan. Survey data showed that one third of those had employment outside of the platform economy and that was where their social protection coverage arose (Berg et al., 2018: xviii). This demonstrates how digital employment is increasing the risks of poverty and social exclusion, creating new forms of inequities for those engaged in it.

The need for international standards to ensure 'decent work' for platform workers has been well documented. The ILO (2021) has produced a comprehensive analysis of international working conditions detailing workers' motivations, barriers and challenges. They flagged key issues concerning precarity, low pay, non-payment and the digital evaluation and reward of work.

This builds on previous analyses of working conditions on micro-task platforms (Berg et al., 2018). Reports have considered various aspects of working conditions such as: pay rates; work availability; work intensity; rejects and non-payment; worker communication with clients and platform operators; social protection coverage and the types of work performed. Workers are typically not offered any training or development and career progression opportunities are scarce (Hauben et al., 2020: 36; Broughton et al., 2018: 9).

Research has demonstrated how a variety of workers internationally experience the pros and cons of the work on these platforms, suggesting how working conditions could be improved (Berg et al., 2018). The World Economic Forum (WEF, 2020) identified the key issues workers face, formulating the improvements that are needed as a '*Charter for Platform Companies*'. Their Charter, alongside a similar approach adopted by Fairwork (2020), sets out a roadmap for action with goals including: diversity and inclusion, safety and wellbeing, flexibility and fair conditions, reasonable pay and fees, social protection, learning and development, voice and participation and data management (WEF, 2020; Fairwork, 2020).

There have been various degrees of recognition of these issues by governments within Europe but, as yet, there has been no coordinated response (Taylor, 2017; HM Government, 2018; Hauben et al., 2020; ILO, 2021). While the regulatory response is '*in flux*' (ILO, 2021: 211) the urgent need for action is further compounded by the expansion of digital forms of management, impacting beyond digital labour platforms (Allen QC and Masters, 2021; Gilbert et al., 2021). The increasing use of technologies and Artificial Intelligence more broadly in the workplace is similarly developing without regulatory constraint. Dølvik and Jesnes (2018: 16) suggest that

'we might in a few years no longer talk about a distinct platform or sharing economy but see growing integration of platform methodology in ordinary companies, such as on-demand work, digitally intermediated work and increased digitalization of traditional jobs.'

This accords with findings from Huws et al (2019: 30) who conclude that given the difficulties with isolating digital platform workers as distinct groups, the broader issue of the spread of digital management practices needs addressing in its entirety; in particular as established firms attempt to compete with platform operations that benefit from lower labour costs.

Unionisation

The limited regulatory response to the emergent challenges presented by digital employment has prompted soft law initiatives and codes of conduct to be implemented by local jurisdictions and non-state actors (ILO, 2020: 246-7).⁷ Within this context the limitations on union organising are therefore concerning. One of the fundamental principles of fair work includes freedom of association and effective recognition of the right to collectively bargain. The capacity of digital employment to undermine existing frameworks is accompanied by a lack of bargaining power for workers. The potential for collectivism amongst platform workers is undermined by the uncertain employment relationship associated with digital employment and barriers to unionisation resulting from the way work is organised. The isolated nature of work and the way it is allocated and managed presents risks for those seeking solidarity in union membership and wishing to engage in collective action. Howcroft and Bergvall-Kåreborn (2019: 32) suggest that union activity and action carries the risk of platform deactivation, loss of income and may be considered futile.

That said, despite the individualised nature of the work, collective action and unionisation has provided some opportunity for workers to challenge poor work practices (Tassinari and Maccarrone, 2020). Collective action is being coordinated by both established mainstream unions and informal groups of workers or start up unions (Staton, 2020; ILO, 2021: 212). The ILO has evidenced that there is an increasing amount of industrial action by platform workers (ILO, 2021). Findings are confirmed by the Leeds Index of Platform Labour Protest, which provides an international measure of worker protest ([Leeds Index of Platform Labour Protest | Centres and institutes | University of Leeds](#)). Early analysis of the data produced by the index suggests that legal challenge and strike action have been important forms of opposition in western Europe and the global south respectively (Joyce et al., 2020).

The importance of strengthening the role of workers' organisations has been evidenced by the outcomes in a number of examples of collective successes including: the Uber case in the UK concerning worker status and the subsequent recognition of GMB union;⁸ union

⁷ For instance, the Charter of fundamental rights of digital labour was introduced in the municipality of Bologna; Cabify, Deliveroo, Grab, MBO Partners, Postmates and Uber Technologies voluntarily signed the WEF Charter at the WEF 2020 annual meeting in Davos.

⁸ *Uber BV v Aslam* [2021] UKSC 5

recognition at an online cleaning platform in Denmark, which has allowed workers to transition to employee status (ILO, 2021: 26); and the successful union lobbying in Germany at IG Metall resulting in the inclusion of self-employed workers into the firms' statutory pension scheme (Behrendt et al., 2019). In Norway after a five week strike by food delivery cyclists in Norway in 2019 cyclists from Foodora the employer eventually a collective agreement on pay with The United Federation of Trade Unions (Fellesforbundet).⁹

The extensive debates with the unions in Norway illustrate some common concerns across the EU. LO, the largest confederation of trade unions in Norway, referred to the 'sharing economy' 'as something that challenges the welfare state and the organized labour market' (LO, 2018: 62). In the Programme of Action for 2017-2021, LO has articulated a concern for the expansion of the digital economy if it is left to grow without a review of current legal framework in relation to employment and working conditions, competition rules, and taxation of commercial activities. According to LO (2017: 16 our emphasis):

"An increasing number of workers choose or are forced into self-employment. In some cases, this may afford better control over their own working conditions but in other it is an illegal circumvention of the regulations on permanent employment contracts that deprives workers of their lawful rights in the labour market, without the benefit of increased freedom or self-determination. In the commercial *sharing economy*, we see clear trends towards employers trying to organize themselves out of their responsibilities as employers and operating at the fringes of Norwegian legislation. [...]

This development will, if allowed to continue, lead to day labour becoming the norm and undermine job security and co-determination, and put a downward pressure on wages. This will be particularly hard on those who already are in a vulnerable position in the labour market, and favour serious economic crime and tax evasion. LO will therefore further develop our strong commitment against labour market crime, social dumping and precarious work, and defend permanent employment at real employers."

Despite the protests from a united labour movement, little has happened in terms of new regulatory measures. However, the government set up a new tripartite 'Committee on the Future of Work' in August 2019. The commission will presented its report (green paper) in the summer of 2021 (NUO 2021:9).¹⁰ It is expected to assess the implications of moving away from the standard employment relationship in relation to rights and responsibilities of workers and of employers. The committee has examined the need to amend the definition of employers, strength democracy at the workplace and limit the opportunities to hire workers in temporary positions.

⁹ [Foodora-streiken er over: Signerer tariffavtale – VG](#)

¹⁰ [NOU 2021: 9 \(regjeringen.no\)](#)

The capacity for these kinds of union campaigns further depends on the strength of unions within the respective country and the flexibility of the bargaining agreements in place. However, despite these successes and the potential demonstrated by both established and start up unions, union membership overall remains low (ILO, 2021: 215).

The impact of the Covid Pandemic on Platform workers

The pandemic has further illustrated both the challenges and precarity associated with platform work and, conversely, the opportunities it can present. During this period of economic turbulence platform work, both on location and online, has been a way for some of those out of work to access employment.

ILO (2021) analysis has shown that worker supply has indeed grown since the Covid outbreak. This has resulted in variable pressures on wages in different sectors. For instance, the sharp expansion of consumer delivery services (Rolf et al. 2021) can be contrasted with the declining business demand for purely web based work, as evidenced by the Online Labour Observatory (ILO, 2021: 20).

The OLI has revealed trends for online workers in the US during the pandemic, of both a '*distancing bonus*' and a '*downscaling loss*'. There was a significant loss in demand for purely web based platform workers at the start of crisis. This was followed by a swift recovery and growth in excess of previous patterns as work shifted to online (Stephany et al., 2020). This was marked for skilled work, such as software development and translation, as opposed to clerical and data entry, which did not see the same uplifts. Stephany et al (2020) surmise that online work may have been more vulnerable as companies sought to protect permanent staff from reductions.

The complications arising from these conflicting pressures on hours and wages are enhanced by the lack of a dependant employment relationship, meaning that workers do not have access to comparable employment protections. The pandemic has amplified the need for decent work, exposing the imbalance of bargaining power and associated impacts of precarity for workers.

While protections were implemented by governments to recognise the unprecedented impacts of national lockdowns, the limited ability for those engaged in digital employment to benefit from such measures underlined the basic inequities in employment status, access to work, responsibility for the health and safety of working conditions, have become increasingly apparent (Verdin and O'Reilly, 2021; Adam et al., 2020; Conaghan, 2020).

The ILO found that 70% of app-based workers did not have access to paid sick leave during the pandemic (ILO, 2021: 174). The consequences of these emergent gaps have resulted in workers unable to self-isolate when needed, a lack of provision of personal protective equipment and limited consideration of health and safety law (Hauben et al., 2020: 37 Booth, 2020; Paul, 2020). Their vulnerability was illustrated in the UK where taxi drivers or chauffeurs have been one of the occupations with the highest Covid related death rates (Windsor-Shellard and Nasir, 2021). This demonstrates the need to understand the

intersectional ways these inequities operate, particularly for those in the lower skill segment of the digital labour market, although reliable and systematic aggregate data is thin on the ground.

Conclusion

This report has considered the extent, form and growth of digital work in selected European countries, including a global perspective from existing data sources. The analysis presented here provides the macro level framework of challenges presented by digital labour from existing quantitative data. While projections of the size, shape and scope for digitally mediated forms of employment are variable, the evidence shows that this is becoming an growing forms of work both globally and within Europe, albeit at different rates. This presents a number of challenges for policy national and pan-European policy makers.

Digital technologies can enable labour solutions for business facilitated by platform companies, for instance reduced costs and the capacity to access large pools of flexible labour. Workers may also benefit from increased flexibility and access to new work opportunities. However, the potential benefits for workers are seemingly mismatched with the practical realities they experience when undertaking platform work. Platform labour is typically used as a means to supplement other jobs, though for some workers it is their main source of income.

The dynamic nature of digital employment presents emerging barriers to equitability which have not yet been adequately addressed. These patterns of exclusion affect citizens in different ways and have the potential to marginalise already vulnerable groups. Operating beyond the coverage of social protection systems, beneficial to those engaged in standard employment relationships, these new categories of worker are often impeded in their capacity to exercise full and effective social citizenship. Workers are subject to poor working conditions and precarity resulting from this uncertain employment model. Their ability to seek collective redress is undermined by the imbalance of bargaining power resulting from this uncertain employment relationship. The regulatory loopholes identified also have the potential to extend beyond platform labour markets, underlining the need for caution. The emergence of unregulated digital forms of management in standard employment relationships is indicative of how the problem is set to evolve.

Robust income maintenance policies for those with insufficient income from paid work and social regulation of the labour market is needed to address emerging gaps in social protection coverage but also recognise how the broader digitalisation of employment may exacerbate inequities.

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