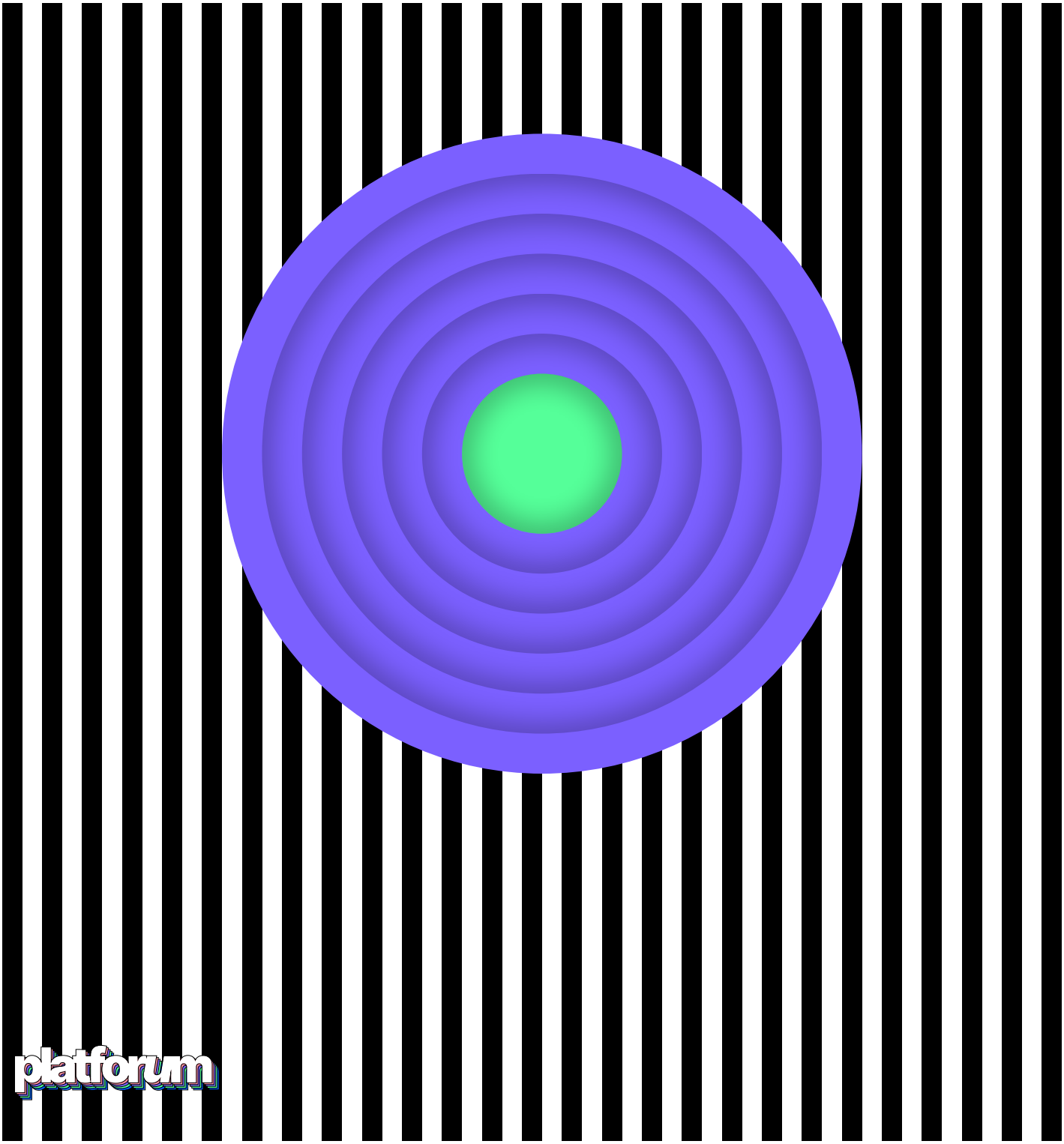
Strategic Foresight

Which workers in Europe are vulnerable to Uberisation?



platformum

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Date of publishing: August 2025

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Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Directorate-General for Employment, Social Affairs and Inclusion. Neither the European Union nor the granting authority can be held responsible for them.

Chapters

Acknowledgements

On 24 April 2025, the ETUC held an online workshop to explore the main ideas in this report. There was also specific contributions from Samantha Howe at the European Public Services Union (EPSU) on platform care, Dearbhal Murphy of the European Arts & Entertainment Alliance (EAEA) on the growing influence of digital labour platforms in the media, arts and entertainment sectors, and Leonardo Ebner from the European Trade Union Committee for Education (CSEE) on the role of platforms in education. Many other trade-unionists and academics contributed to the discussion, which helped to sharpen our analysis and recommendations on the risks of Uberisation in Europe. Thanks to all workshop participants for their input.

Executive Summary

‘Uberisation’ is the spread of digital labour platforms across the economy. Uberisation presents serious risks to the quality and security of jobs in Europe, as it is associated with insecure and low pay; limited or non-existent social protections; opaque algorithmic management practices; intensive data surveillance; and the flouting of government regulations including labour laws.

Because of these negative affects, identifying sectors that are undergoing Uberisation or are threatened by Uberisation, and understanding the causes of this and what can be done about them, is an important part of developing strategic foresight in the trade union movement.

It’s difficult to predict the future as there are many moving parts in whether companies decide to establish themselves as digital labour platforms and - more importantly - whether they can make a success of it over the medium to long-term. These factors cut across technology, economics, politics and industrial relations.

However, what we can do is identify characteristic indicators of Uberisation, and define a set of criteria to evaluate industries against these indicators. The following 10 indicators have been selected as a starting point for an index of vulnerability to Uberisation, based on either their importance to the digital labour platform business model or the extent to which they are typically associated with Uberisation:

1) **Network effects:** Could a company in this industry build a platform that grows in value as the number of interactions on the platform between users - especially workers and customers - expands?

2) **Outsourcing of costs and risks:** Could many of the costs and risks of the business, beyond the core software, be outsourced, primarily to the worker but also to governments and customers?

3) **Discreet tasks:** Can the organisation of the work be split into discreet tasks, whereby it could be commodified on a pay-per-task basis?

4) **Algorithmic management:** Are algorithms used to manage work allocation, performance evaluation and/or the labour process itself? Is this an intense usage of algorithmic management?

5) **Work moving on-location to online:** Is remote work increasingly typical in this industry/sector? Could the work easily be moved from on-location to online?

6) **Outsourcing/privatisation of public services:** Are public services in this sector being, or under threat of being, privatised/outsourced? Are public services in this sector being undermined through austerity, creating significant gaps in service provision?

7) **Weak worker structural/associational power:** Do workers in this sector have weak bargaining power in terms of their position in the labour market and their ability to disrupt company operations? Are they unionised?

8) **Newness of the sector:** Has the sector only emerged in the last 20 years? Was it heavily digitised from the beginning?

9) **Growth prospects:** Does the sector have high-growth potential in the coming decade? Has it attracted investment from venture capital?

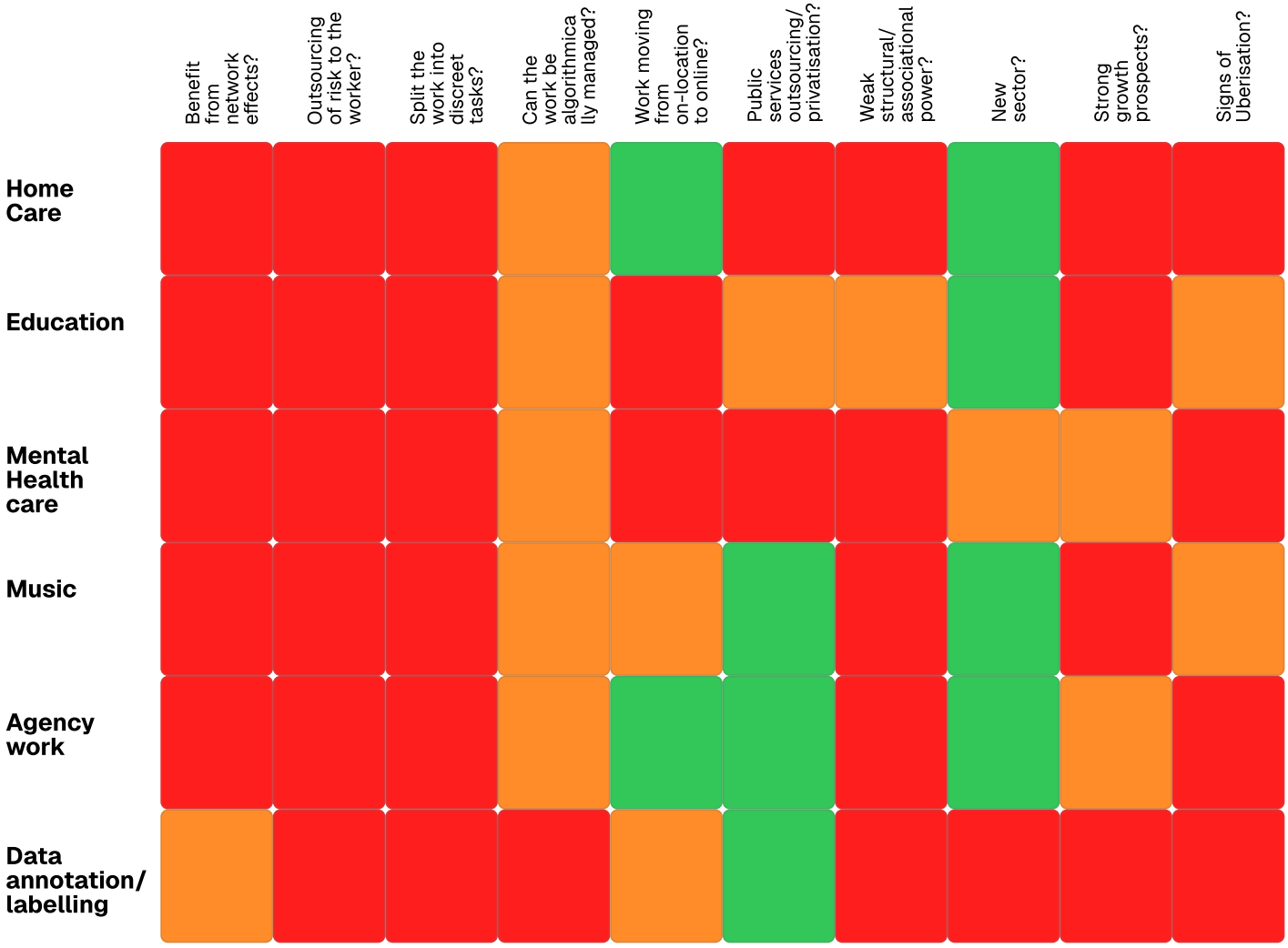
10) **Signs of Uberisation:** Are digital labour platforms already present in this sector, even if it is only on the margins at present? Are platforms a growing trend within the sector?

To assess these different indicators, we have developed a traffic-light scorecard: the more red lights an industry receives in our analysis, the more vulnerable it is to Uberisation. We have identified six industries which have at least five red indicators, meaning they show vulnerability to Uberisation: home care, education, mental health care, music, agency work and data annotation/labelling. The results of our industry-level analysis are summarised in Table 1 on the next page.

To combat Uberisation, unions should develop a prevention strategy before industries are Uberised. This should include ensuring that any new technologies brought into the workplace are subject to stringent union consultation and negotiation. Unions should seek to regulate, restrict and in some cases prevent AI technologies and specific applications of AI technologies at work.

In sectors/industries that are already Uberised, unions should aim for de-Uberisation. This would include tackling bogus self-employment, reducing the role of technology in mediating workplace relationships, reducing the intensity and power of algorithmic management in the labour process, and workers exercising a degree of control over the technologies they work with.

Table 1: Index of vulnerability to Uberisation in six industries



Introduction

Sam Altman is the CEO of OpenAI, one of the most important generative artificial intelligence (AI) companies in the world today most known for its AI chatbot ChatGPT. Speaking at the 'AI for Good Global Summit 2024', Altman gave his thoughts on what the social consequences will be of generative AI.

"Over a long period of time I still expect that there will be some change required to the social contract, given how powerful we expect this technology to be," Altman said.

"I'm not a believer that there won't be any jobs, I think we always find new things to do, but I do think that the whole structure of society itself will be up for some degree of debate and reconfiguration."[1]

There is a strong argument to say that Altman is late to the party. There already has been "some change" to the social contract due not to generative AI, but the AI that came before it: predictive AI.

It's predictive AI which is the technological underpinning for digital labour platforms (DLPs), where workers sell their labour on an app. The most famous DLP is Uber, the Silicon Valley transport giant. By legitimating the idea that businesses do not necessarily have responsibilities in relation to their workers, Uber has been at the vanguard of a broader assault on the social contract.[2] Hence why we talk about the 'Uberisation' of work.

Up to this point, a relatively small section of the European workforce has been subject to Uberisation. But Uberisation is a growing phenomenon, and one which - as we explore further in section 3.6 of this report - may be given a boost by Generative AI. In this context, we should take Altman's prediction about the social contract seriously.

The purpose of this study is to provide strategic foresight into where Uberisation might be going next. What other industries and sectors are facing, or could face, a similarly dangerous cocktail of technological and social change as the taxi sector, for example, has already experienced? As we will see, there are sectors which face clear and present threats from Uberisation.

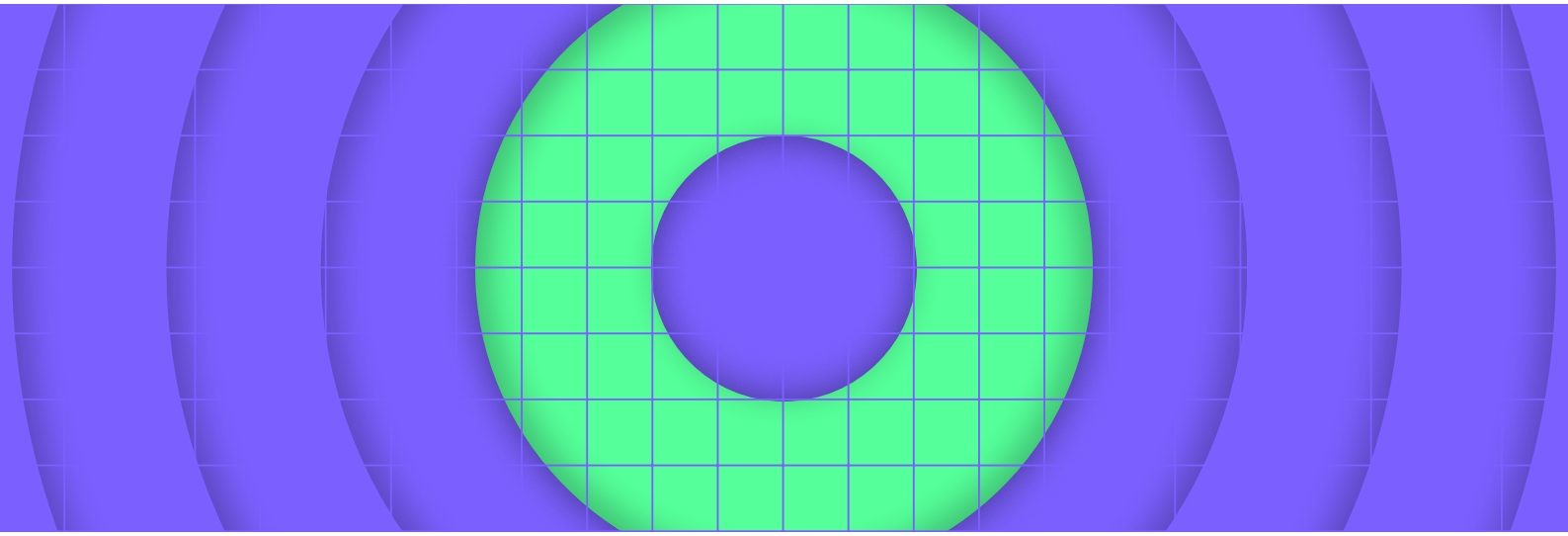
However, these threats can be resisted. Unlike Altman, we shouldn't presume that there is

1 Alexandra Bustos Iliescu (2024). 'AI and the Social Contract: How Sam Altman Envisions Tomorrow's World'. AI for Good.
2 Anders Henten and Iwona Maria Windekilde (2017). 'Domesticating the monster - the case of Uber in a Social Contract Perspective'. Nordic and Baltic Journal of Information and Communications Technologies.

anything inevitable about the degradation of the social contract due to technological change. Neither predictive AI nor generative AI change the core relationship at the heart of capitalism between capital and labour, which remains overwhelmingly one of employer and employee.

The objective for unions should be to resist Uberisation and defend the social contract, so that employers and the state continue to have responsibilities in relation to workers' rights and social protections for workers. The aim of this report is to provide an analysis of Uberisation, where it's going and how it can be stopped, in order to better prepare unions to meet that objective.

1. What do we mean by Uberisation?



‘Uberisation’ has become such a common term in recent years that it has made its way into the Cambridge dictionary. There, it is defined as “the act or process of changing the market for a service by introducing a different way of buying or using it, especially using mobile technology.”[3]

This definition is a good example of how Uberisation can mean different things to different people, depending in particular on what class you are concerned with. For business gurus and venture capitalists, the Cambridge dictionary definition may be considered to be sufficient because it describes a technological change to how markets function. But notice, nowhere in the definition above does it say anything about work or workers, as if they are peripheral (at best) to Uberisation.

In fact, Uberisation is first and foremost about the transformation of work. It is a change in the way labour is organised that distinguishes Uberisation from digitalisation or platformisation, which are both prerequisites for Uberisation but not sufficient to explain it.

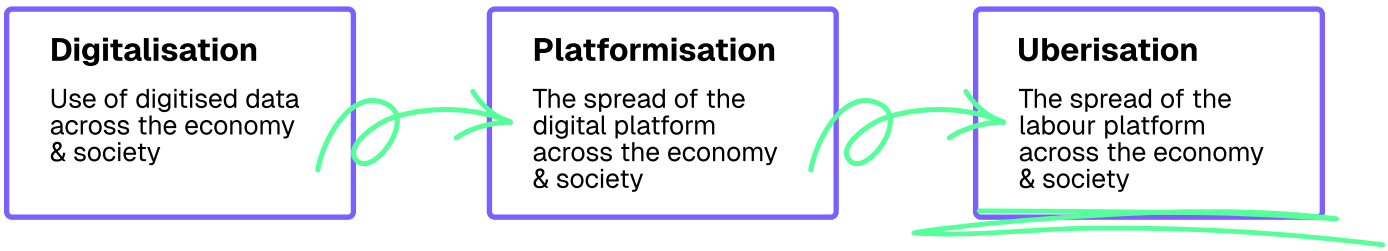
Digitalisation is the use of digitised data across the economy and society. Whereas in the analog era data was transmitted in waves, in the digital era it is transmitted in 1s and 0s. Digital is superior to analog because the capacity to store, process, transmit and change data is far greater and cheaper in the digital format.

Because we can obtain information much more quickly at much lower cost in the digital

3 Cambridge Dictionary (accessed 2025). ‘Uberization’.

age, it reduces the friction of time and space in our interactions. This is crucial for understanding platformisation. Platforms are digital infrastructure which allows multiple parties to interact with one another. This interaction can take every form imaginable (talking, buying and selling, listening, watching, etc) but for it to be a platform it has to connect together at least two different actors. Platformisation, therefore, is the spread of the platform model across the economy and society.

Diagram 1: What is Uberisation?



That brings us to Uberisation, which can be thought of as one branch of platformisation. Uberisation is the spread of platforms specifically designed for the selling and buying of workers' labour, or in other words: digital labour platforms (DLPs). It is called Uberisation because Uber, the US transport company, was one of the first to build a DLP that disrupted a whole industry, the taxi sector. This explains why work is the defining characteristic of Uberisation, and why when the media talk about the 'Uberisation of X industry sector', they are referring to the increasing relevance of DLPs in that sector.

Uberisation has a significant effect on the working lives of those workers who experience it. The ways in which Uberisation affects workers includes that:

- DLPs typically contract workers on a self-employed basis, even if the reality of the working relationship between the workers and the DLP is that of an employment relationship with direction and control by the employer ('**bogus self-employment**');

- DLPs tend to **pay-per-task** rather than per-hour, with the platform taking a commission per-task completed from workers and from customers. Workers are therefore not paid for their total time at work, only the time spent executing a task. This is associated with greater insecurity of pay, often low pay, unpaid work, and 'gameified' forms of pay where workers can receive bonuses based on achieving a number of targets set by the DLP;

- DLPs typically have **few social protections** for workers in relation to pensions, health &

safety, sick leave and so forth, with workers taking the risk of not receiving an income if they are not able to complete tasks;

- DLPs are associated with **opaque algorithmic management** practices, whereby workers have little understanding of the rules which govern their relationship to the DLP and little recourse if they are sanctioned or de-activated by the DLP;

- DLPs tend to put no firm requirements on workers in terms of the extent they have to work or specific hours that they have to work on the platform, with workers allocated work 'on-demand'. **This 'flexibility' in working hours** means many platform workers combine work on the platform with other work and/or caring responsibilities. However, there are strong financial incentives to work at times of peak demand and workers can be punished by the algorithm if they do not work enough;

- DLPs tend to have very **low barriers-to-entry**, meaning there is usually little requirements in terms of qualifications and language skills to sign-up on to the app. This is one reason why migrant workers, who are less likely to have qualifications and language skills in the country they are working in, tend to be over-represented in the platform economy. In some DLPs, such as in the food delivery sector, it's possible for undocumented migrant workers to work on the app, usually via sub-letting an account on the app from a citizen and paying them a percentage of wages earned.

- DLPs typically collect large sums of data on their workers which they use for **surveillance** purposes, to optimise their service, minimise costs and sometimes to sell on to third parties (for additional profit). This data includes that given by customers, who typically have the opportunity to offer a rating of the worker's performance, which other customers can sometimes see before deciding whether to buy their labour;

- DLPs seek to have an **over-supply of labour** on their platform because it costs them almost nothing to register more workers on their platform (due to hiring them on a self-employed basis). A labour over-supply reduces customer waiting times to a minimum and intensifies competition for work between workers, reducing workers' bargaining power;

- The vast majority of platform work takes place via DLPs which are large national and multinational corporations. Most Uberised sectors tend towards oligopolies, as capital becomes increasingly concentrated over time. Consequently, DLPs tend to centralise control of the labour force and there is a **monopsony** effect, further reducing worker bargaining power.

- DLPs often have an **aggressive approach to government regulation**, seeking to minimise their tax costs and ignore or re-write employment and consumer laws when they do not suit their interests. The largest DLPs have big corporate lobbying budgets to pressure governments. Due to their self-employed status, platform workers generally struggle to access government social protection;

- DLPs tend to be **anti-trade union**, either refusing to recognise or negotiate with unions, or to actively partake in union-busting, sometimes including through establishing 'yellow' unions.

Overall, Uberisation is associated with increased precariousness for workers, both financially and in terms of job security, and reduced worker bargaining power. That's why for trade unions, Uberisation is considered to be a negative, not because new technology is being introduced into the labour process as such, but because the changes which are typically associated with DLPs worsen workers' terms and conditions and weaken their power.

Platform work researcher Ludmila Costhek Abílio has found that many of the characteristics of Uberisation are increasingly prominent trends in the world of work beyond DLPs. In this context, DLPs "give visibility" to broader "processes of transformation of the forms of subordination and control of work". Countering Uberisation is therefore one part of a broader project to counter "an increasingly rationalised use of the labour force, as well as to the unaccountability of the state and capital for the survival and livelihood of workers".[4]

4 Ludmila Costhek Abílio (2023). 'Uberization: The Periphery as the Future of Work?' In: Surie, A., Huws, U. (eds) 'Platformization and Informality: Dynamics of Virtual Work'. Palgrave Macmillan

2. Index of vulnerability to Uberisation: Methodology

a) Four pre-conditions for Uberisation

An industry sector 'disruption' has been defined as one which forces all relevant economic actors to "redesign [their] strategy to survive a change in the environment".[5] Major industry-sector disruptions do not happen unless the technological, economic, political and industrial relations' conditions are right for such a transformation to occur.[6] Let's briefly summarise each of these pre-conditions in turn:

Technology: Technological change to the economy is not just a case of scientific breakthroughs and innovative flair. To turn promising new technologies into products that can be brought to market requires that the technology is sufficiently low-cost (typically as cheap or cheaper than the cost of what it's replacing), that the raw materials required to supply the technology can be accessed, that supply chains are dependable, that the infrastructure exists to facilitate and maintain the technology's usage, that the technology actually delivers something that people want or need, and that it is perceived by financial investors to be capable of delivering large profits.

Historically, technological breakthroughs have emerged via government research & development projects because the government operates at scale and has the patience to subsidise the cost of innovation, before only reaching a mass consumer market after years

5 Kalevi Kilkki et al (2018). 'A disruption framework'. Technological Forecasting and Social Change, Volume 129, pages 275-284.
6 Philip Boucher et al (2020). 'Disruption by technology: Impacts on politics, economics and society'. European Parliamentary Research Service.

or even decades.[7]

Economy: Industry sectors tend to change in the context of broader macroeconomic transformations which alter the calculus of governments, businesses and consumers. We can't understand the rise of the gig economy outside the context of the 2008 financial crisis and the government response to it, which led to fundamental changes in the financial dynamics of the economy as interest rates fell to rock-bottom and venture capital (VC) was flush with cash, especially in the United States. It was in this context of 'cheap money' that Uber received hundreds of millions in VC funding, giving it the leverage to disrupt the taxi sector by setting 'predatory' prices which under-cut traditional taxi firms.[8]

The role of finance is particularly important to Uberisation, since almost all of the big digital labour platforms in the western world today were funded by VC and private equity money, meaning they could (at least to begin with) expand much faster than the revenues that they were generating.

Politics: All transformations in industry sectors are political, since they take place within a set of government rules and enforcement actions which set the parameters for economic activity. Governments can create incentives to industry change by providing tax benefits, subsidies, scrapping health & safety laws etc, while constraints can be placed on industry disruption through rules to restrict or prohibit particular activities or to increase their cost. In the context of platform work, the role of politics has as much been about how determined governments are to enforce existing regulations, especially in relation to employment law, as it has been about the creation of new laws. More broadly, the 'neoliberal' era has been associated with a "restructuring" of labour laws to strengthen the control of capital over labour.[9]

Industrial Relations: It's only possible to transform an industry sector if the principle actors in that sector - businesses and workers - have the power and the will to make it happen. Businesses may decide that the time and energy required to introduce a platform model is not worth it, or that they value maintaining a loyal and dedicated workforce of employees that could be undermined if a platform model was introduced. Even when businesses decide to embrace Uberisation or new companies are created based on platform business-models, workers that are organised in unions may have the power to block the Uberisation of their work through industrial action or the threat of industrial action. On the otherhand, sectors with workers that are used to working on a self-employed basis and/or have little tradition of collective organisation may see the introduction of

7 Mariana Mazzucato (2011). 'The Entrepreneurial State'. Demos.
8 Brian Solomon (2016). 'Uber Sued For Predatory Pricing By San Francisco Taxi Company'. Forbes.
9 Julieta Lobato (2024). 'Derecho del Trabajo y Neoliberalismo(s) (Labour Law and Neoliberalism(s))'. Revista de Derechos y Ciencias Sociales.

digital labour platforms as an opportunity for more 'flexible' forms of work and to increase their work opportunities.

b) 10 indicators of vulnerability to Uberisation

The four pre-conditions described above for Uberisation are a very broad brush. If we want to develop a methodology for understanding the potential for Uberisation in specific industry sectors, we need a more exacting criteria. To do this, we have developed an index of vulnerability to Uberisation based on 10 indicators.

The 10 indicators have been developed based on two sets of factors. The first set of factors is the value proposition for businesses in establishing digital labour platforms. We have to consider the potential commercial benefit for businesses which motivates them and their investors to back a digital labour platform model rather than a standard business model. These factors have been derived from analysing business literature and academic research on the value proposition of DLPs.

The second set of factors are based on characteristics which tend to accompany Uberisation. These are things that are typically associated with sectors where digital labour platforms have emerged as serious players. These factors have been derived from analysing sectors which have been to some degree Uberised already.

The 10 indicators are:

1. Network effects

Network effects is the idea that the more people join and use a platform, the more utility it has and the more its value grows. Datafication is the crucial ingredient to generate this positive feedback system, as the storing and processing of data is what allows the network to interact with greater efficacy as it expands.

An example of network effects is Uber's ridehail app. As customers join the platform, it encourages drivers to join in order to service the demand for rides, which encourages more customers as supply improves, which then encourages more drivers, and so forth. The result of this virtuous circle is that (at least in theory) it's easier for customers to get rides and for drivers to access customers, which increases the value of the platform for Uber's shareholders. The potential for network effects is important because this is a major part of the value proposition for companies when considering moving to a platform business model.[10]

10 For instance see James Currier (2019). '70 Percent of Value in Tech is Driven by Network Effects'. NfX.

2. Outsourcing of costs and risks

In 'Platform Capitalism', Nick Srnicek argues that a "lean platform" is a type of platform that outsources everything except the core software.[11] Uber's ride hail platform is an example of a lean platform: the cost of the car, the fuel and the insurance are outsourced to the worker, as are the risks through a 'freelancer' model where the worker doesn't pay for waiting times, receives no sick pay, holiday pay and so forth. The outsourcing of costs and risks to the worker (and to a lesser extent to customers and governments) is a typical feature of Uberisation.

3. Split the work into discreet tasks

To organise work on a digital labour platform it is necessary to be able to divide the labour of each worker into discreet tasks, so that it can be commodified on a per-task basis. This is very different from many work environments, especially those which are team based, where a worker may have a wide variety of responsibilities and complex interactions with colleagues. In this context, it may be difficult or even impossible to separate out exactly who has done what and pay them for their work on a piece-rate basis. Because of this, evidence of discreet tasks is a useful barometer of the potential for Uberisation.

In reality, quite often platform workers conduct work which does not fit into the discreet task in which they are being paid for, but this is another case of platforms externalising the additional costs of the work to the worker themselves (see point 2 above). The key is to identify whether the main thrust of what the worker does can be easily parcelled into discreet tasks.

4. Algorithmic management

Algorithmic management - the use of computer-programmed procedures to co-ordinate labour input in a company - is central to Uberisation. Indeed, algorithmic management must exist in some form for a worker to be a platform worker. However, not all workers who are subject to algorithmic management can be considered to be Uberised. The key to this indicator is therefore to identify the intensity of algorithmic management in the most important parts of the work: task allocation, pay, performance evaluation and the labour process itself.

5. Work moving from on-location to online

When work is done remotely at home rather than in a communal space like an office or a school, the digital vector becomes more powerful in the organisation of the work. The

11 Nick Srnicek (2017). 'Platform Capitalism'. Polity Books, pg 75.

capacity and desire of bosses to surveil and assess workers digitally goes up with remote work, while the importance given to human connection between employer and employee - and between colleagues - goes down. The remote working environment lends itself more to the outsourcing of costs and risk than the office, and incentivises co-ordinating work on a per-task rather than per-hour basis. All of this lends itself to Uberisation.

Of course, on-location work can be Uberised as well, and it is perfectly possible to work from home whilst still being an employee. But the shift from on-location to online increases the chances that the work will be Uberised, which makes it an indicator to look out for.

6. Outsourcing/privatisation of public services

Digital labour platforms are a way of organising work as a service, and therefore it should not be surprising that public services have been sucked into the orbit of DLPs. Public sector workers themselves tend to be well-unionised and have power through their direct leverage over government, which is their employer. These workers, at least so far, have not been subject to Uberisation, but it's when public services are privatised or outsourced that Uberisation becomes a live possibility.

This vulnerability to Uberisation operates on two levels. Directly, the workers that are outsourced or privatised can be subject to private sector platform-business models. Indirectly, when public services are reduced or cut altogether due to austerity policies, or if the capacity of public services does not grow to meet rising demand (such as in social care), gaps in service provision develop and private-sector alternatives, including DLPs, can quickly emerge to fill them.

7. Weak worker structural/associational power

Workers in the gig economy by definition have few worker protections. Consequently, Uberisation is more likely to occur in contexts where workers already have weak bargaining power vis-a-vis their bosses. Bargaining power can be drawn from two sources: structural and associational.

Structural is about the objective power workers have based on labour market conditions and their importance to the functioning of the company. For instance, a software engineer specialising in generative AI has significant structural power because their skills are in high-demand from companies. A railway driver has significant structural power because they can stop a train from starting by refusing to work, impacting the company and the wider economy.

Associational power is about the subjective power workers have to organise their workplace. Workers in a sector with high-levels of trade union density and collective bargaining coverage tend to have strong associational power.[12]

By looking at both structural and associational power, we can identify the different types of bargaining power workers may or may not have in an industry, which can indicate whether they are likely to be vulnerable to Uberisation or not.

8. Newness of the sector

Industries which are new do not have established norms when it comes to industrial relations and tend to have low rates of unionisation. It is always easier to impose an exploitative work model on a sector from scratch than to change an already-existing work model and impose a new one. New industries today are also likely to be heavily digitalised from the beginning. Industries which are relatively new (only existing for the last couple of decades) are therefore much more likely to be vulnerable to Uberisation.

9. Growth prospects

As we have discussed above, the big digital labour platforms are almost always closely linked to investment from venture capital (VC). Baked into the structure of VC is a need to pursue high growth markets, where VC firms can take a stake in a company and the value of that stake can grow rapidly, as it's the potential for high-reward which has attracted investors to put their money into a VC firm.[13] The prospects for growth is therefore a useful indicator as to whether a sector is likely to attract platform business models.

10. Signs of Uberisation

Most obviously of all, the presence of actually existing digital labour platforms in an industry sector, even if they are still very marginal, is a pretty good indicator as to whether Uberisation is a possibility. Of course, at some point every existing industry sector which has been affected by platform business models did not have digital labour platforms operating within them, so it's perfectly possible for a sector to be vulnerable to Uberisation without the hard evidence that it is already happening. It's also possible for there to be DLPs operating but which do not pose a genuine challenge to the mainstream of the sector. But as one indicator of Uberisation, real-world evidence of platform business models is always useful.

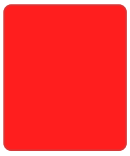
12 For a deep exploration of structural and associational power, see Simon Joyce, Mark Stuart and Chris Forde (2022). 'Theorising labour unrest and trade unionism in the platform economy'. New Technology, Work and Employment, Volume 38, Issue 1.
13 Mohi Zaman (2024). 'Venture Capital Investing: Why VCs Chase High Growth and a Large Market'. ExitStack.

c) Traffic-light scorecard

With these ten indicators of vulnerability to Uberisation established, we are using a traffic-light system as our scorecard.

Green indicates a low-level of vulnerability to Uberisation, either because it is not relevant to the particular sector or there are no signs of it occurring.

Amber indicates a moderate level of vulnerability to Uberisation. For example, most of the six industry sectors analysed below have an amber for algorithmic management, not because any lack of clarity about the existence of algorithmic management, which is present in all platforms, but because the intensity of algorithmic management is not necessarily high.



Red indicates high vulnerability to Uberisation, meaning the signs are clear and can be easily evidenced.

This traffic-light scorecard is a sliding scale: the more indicators are red the more vulnerability there is to Uberisation. There is also a cut-off: we have only included sectors in this analysis where at least five of the indicators are red.

This does not mean that these are the only industry sectors in Europe which are vulnerable to Uberisation. This report is not a systematic study of all of the European economy. These are simply the sectors that we have identified in this report which fit the bill, so to speak.

We also do not analyse sectors in which Uberisation has long been well-established, like ride hail and food delivery. Our focus below is on sectors and industries where Uberisation is viable, an emerging trend and/or are currently going through a period of rapid technological transformation.

3. Six industries vulnerable to Uberisation[14]

a) Home Care

Table 2: Index of vulnerability to Uberisation in the home care sector

Home care constitutes all forms of paid domestic work, including social care, home cleaning, childcare and so forth. In this report we focus on social care, especially that related to elderly people.

Across Europe, there has been a shift from institutional care towards home care, even for

14 In this report we are using 'industries', 'sectors' and 'groups of workers' interchangeably to avoid repetition, even though they are not always the same thing. Out of the six industries under study below, two - agency work and data annotation/labelling - can definitely not be concerned to be sectors, but they are specific groups of workers which are vulnerable to Uberisation, and could be considered industries (the media talks about 'the data labelling industry', for example).

elderly people with severe health problems.[15] This shift has partly been driven by technological changes, with digital technologies offering the ability to monitor the health status of elderly people remotely, but it is also related to the rising cost to governments of delivering social care for an ageing population. 'Ageing in place' is cheaper than institutionalised care and it is also the preferred option for most elderly people to live in their home as long as possible.

Due to these demographic and care trends, the potential size of the home care market is now enormous. In the European Union there are now 95.8 million people aged 65 years and above, 21% of the population (up from 16% in 2003). Out of this 95.8 million, 39.7% (38 million) have severe difficulties in personal care activities.[16] Almost half of this 38 million (49.6%) have used home care services of some variety. That ranges from 16.9% in Romania to 75.5% in Belgium, with the proliferation of home care services generally being greater among more wealthy European countries.[17]

The home care market is already big and it is set to grow significantly as demographic changes intensify. Eurostat projects the number of people 65+ will grow to 107.2 million by 2030 and 129.7 million by 2050, at a time when the EU's total population will have shrunk considerably.[18] The increased demographic weight of the elderly will make home care an increasingly important business opportunity for capital.

The influence of big business has been aided by another trend: the rise in privatisation, outsourcing and personalisation (direct public funding of care recipients who then buy-in their own care support) in Europe's social care sector.[19] All three of these trends have been evident in Europe since the turn of the millennium, especially since the Eurozone crisis in 2010 and subsequent austerity agenda. All three serve as business opportunities for home care firms, which also benefit indirectly from the reduction in publicly-delivered care services, as those in need of care and their families increasingly look to the private sector to fill the gap created by the retreat of the public sector.

Research by the EPSU union has found that a broad range of for-profit companies in the social care sector are now receiving public funding in many EU member-states, including Belgium, France, Germany, Greece, Ireland, Spain and Sweden.[20] The extent of for-profit

15 Inga Valgerður Kristinsdóttir et al (2021). 'Changes in home care clients' characteristics and home care in five European countries from 2001 to 2014: comparison based on InterRAI - Home Care data.' BMC Health Serv Res 21, 1177.
16 Eurostat (last update 2022). 'Difficulties in personal care activities by sex, age and use of home care services'.
17 Eurostat (last update 2022). 'Self-reported use of home care services by people with severe difficulty in personal care activities by sex and age'.
18 Eurostat (last update 2023). 'Population on 1st January by age, sex and type of projection'.
19 Jane Lethbridge (2021). 'Privatising our future: an overview of privatisation, marketisation and commercialisation of social services in Europe'. Public Services International Research Unit and EPSU.
20 Lethbridge (2021), 'Privatising our future'.

influence in home care services varies by country, with 64% of home care providers in Germany being for-profit, compared to less than 20% in Sweden and Slovenia. A study by the European Agency for Safety and Health at Work found that "some digital labour platforms are launched by existing health and social care organisations, or with the support of public authorities."[21]

The private home-care market remains highly fragmented, with a range of small players typically competing in each national market, sometimes only on a local or regional basis. Nonetheless, there has been a notable expansion of multi-national companies operating in this industry, with an increased interest from private equity markets. In Ireland, investors have identified home care as a "high growth sector" where "investors can expect to become profitable within three years".[22] The platform care model makes up one section of this broader corporate expansion into the home care sector.

A mapping of care platforms in Europe by the academic Origami project found that 76% had their headquarters in the country they operated in, suggesting most care platforms are still operating at a national or even local level.[23] The platform care market also reflects the broader home care market in that it remains fragmented, with research Ivana Pais identifying 13 specialised care platforms and 10 multi-service platforms in Italy alone.[24] However, there are some signs of internationalisation, with American multi-service platform Care[dot]com operating in 10 EU countries and French multi-service platform Yoopies in 19 countries.[25] The Origami project found 22 platforms which operate in at least two countries. Accountancy firm Deloitte's private equity research group has projected that platform businesses will significantly outgrow traditional companies in the health and social care sector and "have the potential to capture approximately 50% of all health spending by 2040."[26] While this research is focused on the United States, a highly privatised market for health and social care, many of the features Deloitte describes as being applicable to the platform business model apply equally on the other side of the Atlantic.

The 2022 OSH Pulse survey found that 2% of people working in health & social care in Europe obtain most of their income via digital labour platforms, while 3% obtain part of their income in this way. This is about the same as what the survey found for the working population at large.[27] This suggests that Uberisation in this sector is not currently at an exceptional level, but there is reason to believe it is growing quickly. A 2024 FES study

21 Karolien Lenaerts et al (2024). 'Digital platform work in the health and social care sector'. EU-OSHA.
22 Caroline Murphy, Ivana Pais and Tish Gibbons (2024). 'Care platforms: Impacts and challenges from a trade union perspective'. FES.
23 Francesco Bonifacio and Ivana Pais (accessed 2025). 'Landscaping of the home care digital platform with an info-sheet for each platform'. Origami.
24 Mentioned by Ivana Pais at FES and EPSU care platforms live event 24 June 2024:
25 Lenaerts et al (2024), 'Digital platform work in the health and social care sector'.
26 Deloitte Private Equity (2024). 'Platform business models – Private equity opportunities in the life sciences and health care sector'.
27 Maurizio Curtarelli (ed., 2022). 'OSH Pulse - Occupational safety and health in post-pandemic workplaces'. EU-OSHA.

found that the number of domestic and care work platforms worldwide grew from 28 in 2010 to 224 in 2020.[28]

The platform care business model shares the typical features of digital labour platforms in that the platform matches clients with workers. Companies therefore benefit from the network effects which a platform can offer. The platform can also reduce costs for companies by hiring workers on a self-employed basis and thus outsourcing risk (including health and safety, a significant issue in the care sector[29]) and management costs to the worker. But whereas in a sector like food delivery the payment system is always organised via the platform, in platform care there is a variety of different monetisation models. A subscription model requires workers to pay the platform for access, and payment-per-task is organised off-platform between the client and worker. Some platforms pay workers a base salary, with payment-per-task acting as a top up. Others have a fully fledged payment system where clients pay via the app and the platform takes a commission on each payment.

Domestic work, which is almost uniformly done by women and disproportionately by migrants, is a notoriously exploitative industry for workers with very low-levels of unionisation. While social care workers who have worked in the public sector will have likely interacted with unions, most platform care workers will have no experience of unions and, given their workplace is in other people's homes, have little opportunity to interact with colleagues. Weak associational power makes the sector ripe for Uberisation.

A key benefit of platform care for clients is the customer rating system, giving care receivers and their families a degree of control over who cares for them and the conditions of their care. Another of the advantages is the on-demand aspect of platform care, which fits with the needs of informal, unpaid carers, who are usually family members and still make up a large section of (unpaid) home care support in Europe.[30] These informal carers may buy-in home care support for their loved ones on a platform at times when they cannot care for them due to other responsibilities, for example looking after their children or paid work. The flexibility offered to clients can be a major boon in this context.

For workers, the platform care model can also be attractive partly because of the flexibility over their work schedule. Three-quarters of care workers in Europe are women[31] and many also have (unpaid) caring responsibilities to manage as well, which is one reason why the health and social care sector is among the most prevalent in Europe for part-time working.

28 Murphy et al (2024), 'Care platforms: Impacts and challenges from a trade union perspective'.
29 For more on this, see Lenaerts et al (2024), 'Digital platform work in the health and social care sector'.
30 One study found that 80% of carers in Europe were informal, see Dr Valentina Zigante (2018). 'Informal Care in Europe: Exploring Formalisation, Availability and Quality'.
31 Laura Rayner and Danielle Brady (2022). 'Gender equality: Who cares? Do you?'. European Policy Centre.

Being able to select your own hours - albeit within the limits imposed by customer demand - can therefore be appealing. However, this comes with significant risks, especially for social care workers. EPSU has warned that multi-service care platforms blur the boundaries between household personal services, like home cleaning, and social care, with the latter group of workers at particular risk of de-skilling from Uberisation.[32] The Origami project mapping found more workers were hired as both carers and cleaners (37%) than those who were hired only as carers (23%).[33] Platform care also involves significant job insecurity and unpaid labour in travelling to homes and searching on the platform to work.[34]

There are significant constraints on the platform business model in home care. First, in social care in particular the needs of clients can be complex and sensitive. The importance of strong relationships between worker and client based on trust is far higher for this type of work than industries we would typically associated with Uberisation, like taxis and food delivery. The platform model is not necessarily conducive to this because it is based on relationships between worker and client which tend to be fleeting and temporary, with each worker easily replaceable by another. This doesn't sit comfortably with the desires of most recipients of social care and their families.

Related to this, because workers and clients in platform care spend a lot of time with one another and strike up a rapport, there will be an obvious temptation to cut-out the platform once a relationship of trust has been established, therefore saving both the worker and the client money in the commission which is taken by the platform. Care platforms have strict policies to prevent this, with workers at risk of being permanently banned from the platform if they are caught, but policing this is difficult even with the digital surveillance that platforms deploy.

Furthermore, one of the advantages to companies of hourly-pay, as opposed to pay-per-task, is that bosses can exert greater control and discipline over the full working day of their workers. In a highly sensitive sector like social care, where a client wants to be guaranteed that a care worker will show up and not cancel at the last minute, the 'flexibility' of pay-per-task can be a problem for management. Whereas managers hiring workers under standard contracts can re-assign work to another member of staff if someone is off-sick, that type of control over the whole working day of the workforce is much harder when operating a digital labour platform model.

Finally, platforms typically enter into sectors where regulation is limited and the requirement for workers with specific qualifications is low. While this is the case with

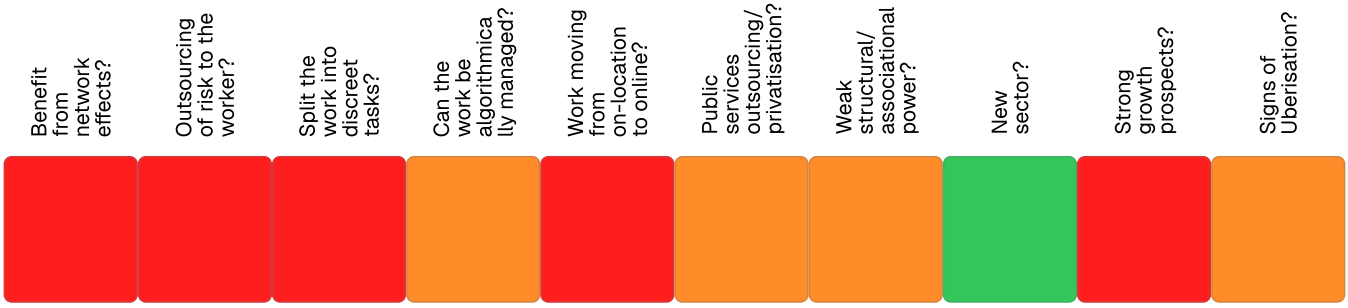
32 EPSU (2016) 'Personal Care and Household Services: EPSU Policy Orientations'.
33 Bonifacio and Pais (accessed 2025). 'Landscaping of the home care digital platform'.
34 Valeria Pulignano, Claudia Marà and Karol Muszynski (2023). 'Informal employment on domestic care platforms: a study on the individualisation of risk and unpaid labour in mature market contexts'. ETUI.

household personal services, such as home cleaning, it's not the case for social care, where the need for social carers to be certified is a legal requirement. This requires platforms to have some infrastructure in place to check qualifications and so forth. While research has found that care platforms often do breach national regulations (thus lowering their costs),[35] regulation nonetheless remains a hurdle to platform business models, especially for those which want to engage with the public sector to win outsourcing contracts.

It's for these reasons that it is unlikely home care companies will go over wholesale to the platform business model, with many likely to maintain workers on employment contracts. What is more likely is that platforms develop niches within the home care market, specialising for example in providing temporary support to clients at short-notice, as well as focusing more on multi-service provision rather than being single-purpose. Nonetheless, it's clear that home care is a sector which has a high degree of vulnerability to Uberisation and one that unions should therefore be paying close attention to, given the importance of this workforce in Europe is only set to grow.

b) Education

Table 3: Index of vulnerability to Uberisation in the Education sector



Education workers at all levels - university, college, school and lifelong learning - have faced significant pressure on their wages and conditions since at least the 2008 financial crisis, through a combination of cuts to public services and the marketisation of the education system.[36] In the main, this has not yet led to the introduction of a gig economy model. While some unions have argued that a "gig economy" is entering into the university system,[37] in reality this has taken the form of precarious fixed-term and temporary contracts, rather than Uberisation as we have defined it in this report.

35 Pulignano et al (2023). 'Informal employment on domestic care platforms'.
36 For instance, see Tadej Košmerl and Borut Mikulec (2021) "'You have to run it like a company'. The marketisation of adult learning and education in Germany and Slovenia". European journal for Research on the Education and Learning of Adults.
37 UCU (2024). "New report exposes 'gig-economy' reality of prestigious university research departments".

However, there is evidence of Uberisation already on the fringes of the education system. Online language class platforms have mushroomed in recent years, with a number of major platforms now offering teachers from across the world in multiple languages. 'Preply' boasts over 50,000 tutors on its platform from 180 nationalities, having raised over $100 million in venture capital funding.[38] 'Italki', a Hong Kong platform, claims to have over five million students, with 10,000 teachers working in over 130 languages.[39] The online language learning market was estimated to have been worth $15 billion in 2022 and is expected to grow to to over $40 billion by 2030, although this includes platforms which do not use platform workers, such as 'Duolingo'.[40]

It's not just in the language market, general adult online learning platforms have also grown rapidly. 'Udemy' is an adult learning platform whereby anyone can sign-up as an 'instructor' to design and teach their preferred course online. Udemy take a 63% commission on each standard student course enrolment and 3% commission on enrolments where the student has found the course through the instructor's self-promotion. Instructors are therefore financially incentivised to promote Udemy through their contacts, social media connections, and so forth. The platform claims to have had over one billion course enrolments since it launched in 2010 and 80,000 instructors worldwide.[41] It has raised $274 million in venture capital funding and is listed on the Nasdaq stock exchange.[42] The company has never turned a profit and has a strategy of reducing instructors' pay rates over time to improve margins.[43]

While Udemy offers no accredited qualifications from its courses, 'Coursera' has established partnerships with over 350 major universities and corporations, which provide teachers to deliver a variety of online courses, including ones which offer university degrees. Partners include Google, IBM, Imperial College London and Utrecht University.[44] Like Udemy, Coursera is also a listed company in the US with an annual revenue in 2024 of $694 million. Other major platforms in the general adult online leaning space include MasterClass, SkillShare and Udacity. The online learning market has been predicted to grow from $194.25 billion in 2022 to $545.38 billion by 2030, at an annual growth rate of over 10%.[45]

The value of platformisation for online learning companies includes:

38 Preply (2022). '2022 Preply Language Report'.
39 Italki (accessed 2025). Homepage.
40 Omkar Raul (2023). 'Online Language Learning Market Size, Share, Growth & Industry Analysis, By Language (English, Spanish, French, German, Chinese, Japanese, Others), By Type (Individual learners, Institutional learners) and Regional Analysis, 2023-2030'. Kings Research.
41 Udemy (accessed 2025). About page.
42 Tracxn (last updated 2025). 'Udemy funding & investors'.
43 RL Insights (2024). 'Udemy: Focus On Profitability Via Reduction In Instructor Incentive'. Seeking Alpha.
44 Coursera (accessed 2025). 'Meet our Partners'.
45 Mastermind (2025). 'Online/E-Learning Market Size'.

- The platform connects teachers to students and thus benefits from network effects;
- The classes mean the work can be split into discreet tasks to be commodified on a pay-per-class basis;
- It's possible for platforms to tap into a global labour market thus ensuring ample supply of labour and downwards pressure on wages and conditions;
- The costs of in-person teaching (buildings, electricity, etc) are outsourced to the worker and the client;
- Finally, the use of customer rating systems gives students a degree of control and choice in relation to their teachers, something they wouldn't get in more traditional education settings.

There are two main constraints on the spread of online learning platforms. First is client experience: online learning classes may be more convenient but they are not as good for concentration as in-person ones,[46] which has a major impact on the capacity to learn over the long-term. Second, and relatedly, is that although it is feasible to have an online classroom with multiple participants, this is much more complicated than having a classroom in-person, which is why online classes tend to be one-to-one. The detriment of one-to-one classes from a business perspective is that labour costs are much higher than in a classroom setting. Also, many students prefer to learn in a classroom environment rather than one-to-one. The development of the 'metaverse', while often over-hyped, means the student experience of online classroom settings may improve to some degree going forward.[47]

These are constraints on the platform business model, rather than solid obstacles. With the rapid growth of online rather than in-person learning,[48] especially since the pandemic, the potential for digitalisation to quickly lead to Uberisation is clear. But even in-person education settings could be vulnerable to Uberisation to some degree.

Firstly, there are signs that education workers are subject to some forms of digital and algorithmic control which are associated with platformisation. An EU Joint Research Centre (JRC) study found that education was the third highest sector indicating 'strong' levels of platformisation, meaning workers experiencing both digital monitoring and algorithmic management in the sense of automated evaluation and automated direction over their work.[49]

46 The author can attest to this personally having experienced online language classes during the pandemic and in-person language classes since then.
47 Gülay Güler (2024) 'The Role of Virtual Classrooms in the Metaverse: Revolutionizing Education for the Next Generation'. VisionFactory.
48 Johnny Wood (2022). 'These 3 charts show the global growth in online learning'. World Economic Forum.
49 Enrique Fernández-Macías et al (2023). 'The platformisation of work: Evidence from the JRC Algorithmic Management and Platform Work survey (AMPWork)'. European Commission Joint Research Centre.

Secondly, the digital labour platform model would fit the market for substitute teachers in schools and universities due to the temporary, one-off nature of substitute work. 'Swing' is an American digital labour platform for substitute teachers which argues on its website that "substitute teaching is the future of gig work".[50] There would be little impediment to such a business model taking-off in Europe too.

Third, as some universities become global institutions, they are increasingly moving towards offering online courses to reach potential students wherever they are. 'Upskillwise', a skills platform rating company, claims that 98% of universities now offer online courses.[51] As mentioned above, Coursera already has partnerships with universities across the world. As online university courses grow so will online university teaching, which significantly increases the risks of Uberisation.

Could gigification reach the heart of the education system, becoming a new normal for school teachers, college lecturers and university professors? While the JRC study shows that some degree of platformisation already exists, a fully-fledged gig model remains unlikely because education workers work fixed hours and go through a process of career progression over a long-period of time. These factors mediate against Uberisation. Also, education workers (especially in schools) do have a strong degree of structural and associational power, with a history of union organisation which would make it difficult to impose a gig economy model on the workforce.

Nonetheless, education unions should be on guard about ways in which digital monitoring and algorithmic management are being introduced into the education system. This includes raising probing questions about the extent of online teaching and partnerships with platforms like Coursera, as if this becomes the working norm for even some of the workforce in schools, colleges or universities it will significantly increase the risks of Uberisation.

50 Abie Ginis (2024). 'Why substitute teaching is the future of gig work'. Swing.
51 Devlin Peck (2025). 'Online Learning Statistics: The Ultimate List in 2025'.

c) Mental health care

Table 4: Index of vulnerability to Uberisation in the Mental health care sector

As awareness around mental health issues has grown and mental health problems have become more acute, demand for mental health services has grown rapidly in Europe, especially since the pandemic, far outstripping the capacity of the public sector to provide mental health support.[52] In Spain and Germany, 87% and 81% of people respectively experienced a long waiting list to access mental health services in the public-sector in 2023.[53] Given this, it's no surprise that many people turn to the private sector for help.

The staple of private sector mental health services is the local private practice, typically consisting of just one mental health professional. But as the sector has grown, so has the role of multi-national corporations, many of which have turned to a platform-model to maximise returns. As customers are attracted to these platforms, mental health professionals are tempted to go where customer demand is. Also, the cost of insuring a private practice compared to platforms - which get reduced costs from insurance firms because they are buying at scale - can make it harder financially to sustain a small private practice.[54]

The platform model value proposition for companies in the mental health sector includes that:

- The service benefits from network effects due to the matching of mental health professionals with those in need of mental health care;

52 For a broad overview of rising demand and insufficient capacity in mental health services in Europe, see Sarah-Taïssir Bencharif (2022). 'Europe's growing mental health care gap'. Politico.
53 Statista (2025). 'Share of people that encountered long waiting lists when accessing mental health services in Europe in 2023, by country'.
54 For the challenges private practices are facing, see Danielle Barron (2024). 'Increasing indemnity costs threaten private consultants'. The Medical Independent.

- Many mental health professionals are used to working on a freelance basis without employment contracts and having costs (building, electricity, etc) outsourced to them, therefore Uberisation may not feel like such a radical change for the workforce;
- The division of tasks into individual appointments with clients means it is relatively straight-forward to commodify the work on a pay-per-task basis;
- Most mental health services are based on a one-to-one meeting format, making it easy to conduct online;
- Clients are able to select their mental health professional from a number of options and the use of customer ratings' systems gives customers a degree of control that they wouldn't get in the public sector;
- Finally, mental health professionals have no strong tradition of trade union organising, partly on account of the fact that self-employment has been the norm for many, meaning there is little capacity for organised resistance to the entry of platforms into this space.

Mental health platforms are generally divided between a subscription model - where clients pay a monthly fee to access services as and when they need it - and commission-based fees. Many of the largest platforms obtain their revenue from employers, which have included free mental health care as a contractual perk, as well as healthcare providers (including in the public sector) and insurance firms outsourcing clients to platforms. There have also been reports of schools contracting platforms to provide child mental health services.[55] The most typical form of service-provision is video conferencing, but some platforms also offer text-based mental health support whilst a small number provide virtuality reality therapy. Some platforms combine online therapy with an on-location offer.[56]

During the pandemic, demand for online mental health services surged and there was a rapid increase in venture capital investment. For example, 'Cerebral', a US-headquartered therapy platform, raised $462 million in venture capital funding in 2020 and 2021, giving the company a valuation of $4.8 billion despite having only launched in 2019.[57] BetterHelp, another US platform, spent $7.5 million on podcast sponsorship in July 2024, almost $2 million more than the second largest podcast spender, Amazon.[58] Data Dynamics Research has estimated the online therapy platform market to be worth $3.5 billion and it is projected to grow to $5.4 billion by 2030.[59]

The rapid expansion of mental health platforms has increased media scrutiny on how they

55 Kate Ferguson (2024). 'How online therapy became big business'. DW.
56 For an example of online and on-location offers, see Harley Therapy (accessed 2025):
57 Heather Landi (2021). 'SoftBank leads mental health startup Cerebral's $300M round, propelling valuation to $4.8B'. Fierce Healthcare.
58 PodcastTonight (2024). 'Podcast advertising is seeing a record year with significant spending increases in July 2024.' Instagram.
59 Data Dynamics Research (2024). 'Online Therapy Platform Market Size and Regional Insights Fueling Growth'. LinkedIn.

operate. BetterHelp is perhaps the most high profile case. The US platform fell foul of the US Federal Trade Commission in 2023 for selling patient data on to third parties including Facebook and SnapChat, despite promising clients that they would keep their data private. The company had to pay a $7.8 million fine. [60]

Concerns from workers about BetterHelp have also been growing. Mental health professionals have said that the company's pay policy - rates increase the more appointments' therapists take on - incentivises burn out, with pay per-hour lower than in a typical private practice. BetterHelp's hiring process in the UK, a market it has sought to rapidly expand into in recent years, was described by mental health professionals as not serious and it was not possible to speak to a supervisor or manager on the phone if there was a problem, a typical issue for workers in the gig economy.

Moreover, the company promises "licensed, accredited professionals" on its website but this includes therapists who are not university educated. In the UK, there is no such thing as "licensed" therapists and "accredited" usually means accredited by the British Association for Counselling and Psychotherapy (BAC), but some of the 1,000 UK mental health professionals which had signed up for BetterHelp told The FT that they weren't BACP accredited.[61] Problems with a loss of professional identity have also been registered by mental health professionals working on therapy platforms in Italy.[62] The platform model therefore appears to carry significant risks of de-skilling in the mental health sector.[63]

Customer complaints have also been rising. Some German customers told 'DW' that having signed-up for BetterHelp's subscription service, they weren't able to get a one-to-one meeting with a mental health professional on the platform.[64] BetterHelp re-funded $93 million to customers in 2023, most of whom had signed-up but already cancelled before the end of the first month.[65]

BetterHelp's number of subscribers has been falling and it's owner, publicly-listed telehealth company Teladoc, continues to run at a loss, with the stock price just a fraction of it's 2021 peak.[66] Cerebral, mentioned above, has also faced scrutiny over it's practices

60 US Federal Trade Commission (2023). 'FTC Gives Final Approval to Order Banning BetterHelp from Sharing Sensitive Health Data for Advertising, Requiring It to Pay $7.8 Million'.
61 Ian Johnston (2023). 'Therapists sound alarm on BetterHelp's rapid UK expansion'. The FT.
62 Laura Carrer (2023). 'Lo psicologo? Lo trovi online: così le piattaforme reclutano terapeuti a basso costo' (The psychologist? You can find it online: this is how platforms recruit low-cost therapists). Il Fatto Quotidiano.
63 This is also a concern in public mental health services and has been linked to outsourcing to the private sector, for more see The Free Psychotherapy Network (2024). 'Machina Ex Deo: AI and the future of NHS Talking Therapies'.
64 Ferguson (2024), 'How online therapy has become a big business'.
65 Chris Larson (2024). 'BetterHelp Refunded Customers $93M in 2023'. Behavioral Health Business.
66 Ben Caldwell (2024). 'BetterHelp is losing a lot of subscribers'. Psychotherapy Notes.

and was reported by BusinessInsider in 2022 as "fighting for its survival".[67] This raises questions over whether the boom in venture capital funding for therapy platforms will turn out to be a pandemic-era driven flash in the pan.

Constraints on the growth of therapy platforms include: many clients prefer in-person mental health services to video conferencing; there's a strong desire among clients to use 'trusted' services, which often means local; concerns over customer privacy; legal compliance requirements in a highly-regulated sector; and difficulties in deploying an international labour market due to client desire for mental health professionals who they feel culturally connected to.

Despite these constraints and despite the struggles of some of the big US venture capital-funded platforms, there are still a wide range of therapy platforms for potential customers to select from in Europe today, in what remains a fragmented market. European venture capital-backed therapy platforms include 'Ieso Health', which has won contracts with the NHS in the UK to provide free Cognitive Behavioural Therapy (CBT), Swedish therapy platform 'Mindler', which boasts on its website that it has treated over 150,000 patients, and Oliva, a London-headquartered platform offering mental health and professional coaching support specifically for employees.[68]

While mental health professionals are traditionally middle-class jobs which one would not necessarily associate with trade unions, the emergence of therapy platforms shows that even high-skilled workers can are vulnerable to Uberisation. More specifically, the risk in this sector of bogus self-employment and de-skilling are subjects which unions have significant experience with and it may be possible to build a unionisation campaign among mental health professionals on that basis. Unions should be attentive to the possibility of organising in an industry that is going through significant turbulence.

67 Blake Dodge and Shelby Livingston (2022). 'How Cerebral went from a hyped $4.8 billion mental-health startup to fighting for its survival'. Business Insider.
68 Freya Pratty (2021). 'Here are all of Europe's mental health startups'. Sifted.

d) Music

Table 5: Index of vulnerability to Uberisation in the music sector

The music industry has been turned upside down by platformisation. Music streaming platforms like Apple Music, Spotify, Youtube and Tidal have transformed the economics of the sector for musicians, which previously made a significant portion of their income from CD sales. Now, the rights holder of a song receives a tiny commission per stream (a 'royalty'), on Spotify between $0.003 - $0.005 on average, with 1,000 streams required before musicians can start receiving any royalties at all.[69] Moreover, individual musicians don't upload their music directly, they need to licence it first to an intermediary known in the industry as a professional distributor, which takes a cut of the royalties.

Suffice to say, it takes a huge number of streams for a professional musician to make a living through streaming alone. While the music industry globally now generates greater revenue than before CD sales collapsed at the start of the internet age, the distribution of that revenue is even more unequal than in the days of CDs due to the centralisation and concentration of consumer access via streaming platforms, which commanded two-thirds of global music revenues in 2023.[70] One survey found 90% of workers in Europe classified as 'performers' were paid under €1,000 per annum from streaming.[71]

The ability of musicians to attract streams is heavily mediated by the algorithmic management of the platform. Sorting algorithms dictate what ranking songs receive and whether they appear in automated playlists which have been algorithmically curated for listeners. One study concluded that "Spotify has substantial power to influence song success as well as consumption decisions", with a song ranked first on the U.S. New Music Friday list increasing it's streams by about 14 million on average.[72] Streaming platforms

69 Ditto (2025). 'How Much Does Spotify Pay Per Stream in 2025'
70 IFPI (2024). 'Global Music Report 2024: State of the Industry'. Page 11.
71 Referenced in Drew Gardiner (2024). 'The Role of Digital Platforms in Shaping the Conditions of Creative Work'. ILO.
72 Gardiner (2024), 'The Role of Digital Platforms in Shaping the Conditions of Creative Work'.

also have content moderation policies which can lead to songs being deleted or demonetised on the platform if they are deemed to have not complied with their guidelines, with little recourse to appeal.

Traditional music rights holders and publishing companies appear to have learned how to extract revenue from the streaming platforms, at the expense of musicians. A study of musicians in the UK found that the average per-stream rate for musicians from 2012 to 2019 has fallen, while revenues to record labels have gone up.[73] Streaming platforms are, on the whole, still not profitable.[74]

The new economics of the music industry has put greater weight on live performance, which according to the International Federation of Musicians (IFM) represents 50% or more of income for the majority of musicians.[75] The term 'gig economy' comes from musicians 'gigging'; paid per live performance with no contract and no guarantee of future work. Music gigs have actually not been thought of as part of the modern gig economy, which is associated with working via digital labour platforms, whereas music gigs have been traditionally organised on the phone and paid cash-in-hand. But there are signs that digital labour platforms may become increasingly relevant to live performance.

'LiveTonight', a French live music platform, connects clients (concert organisers) to musicians.[76] Clients leave reviews and ratings on the profiles of musicians. Pay rates are based on clients expressing what they are looking for and the musicians giving them a quote. When a rate is agreed, the LiveTonight payment system is used, with the platform taking a 21% commission. Musicians can also be hired on the platform as "intermittent" workers, essentially a temporary employment contract, or work on a freelance basis. LiveTonight currently boasts over 500 musicians for clients to choose from.

'SofarSounds', a UK-headquartered live performance platform operating globally, offers clients the option of musicians for a gig or to curate a full private concert for them. Clients do not select musicians directly, they tell SonarSounds what they are looking for and the platforms' local and regional teams select from those who have set-up profiles on the platform to find the optimal candidate. If it is a SofarSounds organised event the musician receives a base fee plus a per centage of ticket sales over $100. If it is a musician for an independently organised concert, SofarSounds doesn't guarantee any payment, with the musician needing to negotiate directly with the organisers. For a concert that is donation-based, "there may be an option for artists to choose a high-quality video of the performance

73 Hesmondhalgh et al (2021). 'Music Creators' Earnings in the Digital Era'. Intellectual Property Office.
74 Dan Rys (2023). 'Tidal plots a new course - will it pay off?'. Billboard.
75 Thomas Dayan (2024). 'Music Sector and Platform economy'. The International Federation of Musicians.
76 Live Tonight (accessed 2025). Homepage.

as an alternative to payment", it states on the SofarSounds website.[77]

The company, which claims that more than 10,000 musicians perform via its platform every year, had to pay a $460,000 fine to the New York Department of Labour in 2020 after an investigation found that 654 SofarSounds 'ambassadors' were never paid for their work. The fine was distributed to the unpaid workers and SofarSounds changed its operations as soon as the investigation was opened to stop the use of unpaid volunteers.[78]

What the examples of SofarSounds and LiveTonight show is the potential for the platform business model to make inroads into the live performance space. Live performance ticks a lot of boxes for Uberisation:

- The work can be organised into discrete tasks ('gigs');
- The platform can expand through network effects;
- It is a sector where self-employment and precariousness is the norm and therefore workers are used to the risks being outsourced to them;
- Musicians have weak levels of structural and associational power with little tradition of trade union organising;
- Finally, the use of ratings and review systems offers clients, especially those who are not familiar with the local live music scene, a level of quality control.

There are some constraints on the platformisation of live performance. Firstly, live music is a highly fragmented sector because most live gigs still take place in small venues with a localised music scene. In this environment, a lot of the organisation connecting musicians to gigs can happen relatively seamlessly through informal channels based on word-of-mouth recommendations, reducing the need for a digital labour platform.

Secondly, the organisation of gigs can be quite complex when you consider the various costs that can be involved (travel, accommodation, equipment, etc) and therefore is not necessarily conducive to simplified, uniform digital payment systems. Also, at the most profitable, top end of the live music sector, where globally-recognised stars performing in major concert venues, there is no purpose for a digital labour platform business model.

Nonetheless, live music remains a growth sector in Europe,[79] making it potentially eye-catching to venture capital and private equity. LiveTonight is venture-capital backed, raising $587,000 in 2022 from SideCapital, a French VC firm which invests in early tech start-ups.[80] SofarSounds is also venture-capital backed, with its most recent funding round in

77 SofarSounds (accessed 2025). 'How it works: Artist compensation'.
78 Jem Aswad (2020). 'Sofar Sounds Reaches $460,000 Settlement With Department of Labor (EXCLUSIVE)'. Variety.
79 Matéo Vigné (2024). 'Unveiling Europe's Live Music Scene: Market Dominance and Cultural Diversity'. Reset-Network.
80 Pitchbook (accessed 2025). 'LiveTonight Overview'.

2021 raising $16.2 million.[81] While these are not huge sums for the venture-capital world, they indicate that VC interest in live performance has remained resilient in wake of the pandemic, which was a major blow to the live performance sector.

The need for unionisation among musicians is clear. Not only are most musicians extremely poorly paid by both streaming platforms and live performance organisers, they have to navigate the complex world of professional distributors and management agencies, all looking to take as large a cut as they can of any money that musicians do make. Many musicians are having to deal with the stress of trying to cobble together an income through various sources, including streams, merchandising, hard copy sales, crowdfunding, sponsorship, grants, teaching, and even releasing their work as NFTs (non-fungible tokens). As one trade union study on creative workers found, a typical musician today may be "not only an author and composer, but also a performer, producer, and publisher…he is also a community manager (maintaining relationships with his fans), creating content for social media, and performing all kinds of business management tasks (creating contracts, preparing accounts, networking, negotiating, rights management, etc.)."[82] Juggling all of this, which includes a lot of unpaid labour, without financial stability is extremely difficult in the medium-to-long term.

Moreover, the music industry has a long-standing gender pay gap,[83] while the ability for musicians from wealthy backgrounds to get ahead in the industry by having their work subsidised by their parents means there is also a major social class divide.[84] Unions are well placed to tackle these structural inequalities.

The difficulty in organising in this sector is due to the fact that there is a major over-supply of workers and that most people working as musicians see it as 'aspirational labour'; a job that is also a personal passion, therefore making them more willing to put up with shoddy working conditions to stay in the industry. But there are examples of effective organising in the live performance ambit, for example in Finland the Musicians' Union secured a collective agreement for a live streaming tariff in 2019, including for video, audio and real-time streaming.[85] Creative industries are by no means easy to organise in but, as big strikes in the US actors' union has shown in recent years, successful actions among this group of workers can quickly become high-profile and have a resonance among wide sections of society.

81 Pitchbook (accessed 2025). 'SofarSounds Overview'.
82 TWIIID and Doenker (2023). 'Digital Working in the Media, Arts & Entertainment Sector: Challenges and Opportunities'. FIA, EFJ, FIM and UNI Europa.
83 Musicians' Union (2024). 'Musicians' Census Finds Over Half of Women in Music Have Experienced Gender Discrimination'.
84 Musicians' Union (2019). 'Breaking the Class Ceiling: Social Mobility'.
85 TWIIID and Doenker (2023). 'Digital Working in the Media, Arts & Entertainment Sector'.

e) Agency work

Table 6: Index of vulnerability to Uberisation in the agency work industry

Agency work now makes up a significant section of workers in Europe, with 2.4% of the total EU workforce now agency workers (approximately 4.8 million workers).[86] Hospitality and retail are the two sectors most typically associated with using agency workers.

Agency work is associated with low-pay, high levels of unpaid work and temporary or zero-hour contracts.[87] Temporary employment agencies traditionally hired workers and placed them in temporary positions based on contracts that the agency had with business clients. But agency work platforms, which directly connect workers looking for temporary gigs to clients in need of temporary workers, are increasingly supplanting the temporary employment agency in this space.

Young Ones, a Dutch agency work platform, is illustrative of the growing influence of DLPs in this industry, and the risks associated with it.[88] Young Ones was established in 2017 and operates in the Netherlands and the UK. It boasts over 100,000 'freelancers' in the Netherlands and over 8,600 clients, including retailer H&M, fast food chain Burger King and logistics firm DHL. The clients must pay a minimum hourly rate which is slightly above the national minimum wage. Clients can post gigs for free and Young Ones takes a flat fee from the company of €4.40 on every transaction. The worker, who is hired on a self-employed basis, has a profile on the platform where clients can rate their performance. The worker can accept the rate offered by the client for a gig or seek to negotiate a higher rate.

For workers, the attraction of an agency work platform like Young Ones is that it has very low barriers-to-entry: you just have to create a profile and complete a short in-app on

86 Eurostat (last updated 2024). 'Temporary and Permanent Employment - statistics'. Figure 6.
87 Nicolas Countouris et al (2016). 'Report on temporary employment agencies and temporary agency work'. ILO, pg 26.
88 Young Ones (accessed 2025). Home page.

boarding course.[89] Some workers, especially migrants who may have difficulties with the native language, will find this accessible compared to a job interview. Secondly, being able to pick shifts based on your own timetable can be useful for workers who are seeking work around their studying or care commitments, or alongside another part-time job.

For clients, agency work platforms offer a quick and available source of temporary labour, which can help fill labour shortages when workers are sick or increase the size of the workforce to meet times of peak demand, such as on weekends in retail, or fulfil special functions, such as weddings in hospitality. Agency workers have very weak structural and associational power due to the temporary nature of the work. The ratings system on the platform also gives clients considerable control over the worker, since their rating will have a major impact on their ability to get work on the platform in the future. Finally, as Young Ones promotes on its website, clients "do not pay employer's contributions or payroll taxes" for the workers they hire because they are contracted on a freelance basis, reducing clients' labour costs.[90]

It is not difficult to see how agency platform work could be open to abuse and exploitation, and media scrutiny is picking up. YoungOnes has been found to offer nine-hour shifts in the UK without a break, which is illegal under UK employment law. There have also been reports of workers not receiving payment from YoungOnes, with the platform blaming the client for not yet paying their invoice to YoungOnes.[91] Whereas previously YoungOnes payment system paid workers within three days without charge, a new system introduced in January 2025 charges 4.8% commission if the worker wants to be paid immediately and 2.9% if they want to be paid in three days. If workers don't want to pay any commission to receive their wages, they typically have to wait 30 days.[92] Temper, another Dutch work agency platform which has received venture capital backing[93], delivered a briefing to hospitality clients claiming that workers on their platform are not covered by fair tipping laws because they are freelancers. The briefing was deleted by the platform after it came to public attention.[94]

These scandals have raised questions about whether agency platform workers are bogus self-employed. Traditional employment agencies employ agency workers, and there is a strong argument to say that agency work platforms are also employers. The UK employment rights minister Justin Madders wrote to YoungOnes and Temper in January 2025 warning them that "bogus self-employment is entirely unacceptable" and that the government will "not hesitate to ask all relevant authorities to scrutinise employers or agencies whose

89 Young Ones (accessed 2025). 'What do I have to do to start working through Young Ones?'
90 Young Ones (accessed 2025). 'Tarieven Freelancers Boeken' (Rates Freelancers Books).
91 Tom Wall (2025). 'Gig economy firms warned by UK government they may be operating illegally'. The Guardian.
92 Tom Wall (2025). "'So immoral': gig economy workers charged fee to get paid quicker". The Guardian.
93 Pitchbook (accessed 2025). 'Temper Overview'.
94 Tom Wall (2024). 'Gig economy firm under fire for telling restaurants they can avoid UK's new tipping laws'. The Guardian.

behaviour appears to be exploitative". Both YoungOnes and Temper responded claiming that UK employment law and employment agency regulations don't apply to them because their workers are freelancers. There are concerns that a new UK employment rights bill, which will eradicate zero-hours contracts, will lead to businesses in retail and hospitality increasingly turning to gig economy models to avoid the costs of workers' rights.[95]

There are some limits on the growth of agency work platforms. Firstly, almost all retail and hospitality workplaces would struggle if a majority of workers on the shop-floor or in a restaurant had never previously worked there before turning up for their shift. All workplaces which are on-location and involve a level of team co-operation among staff require some degree of workforce continuity. It's therefore difficult to imagine agency work platforms becoming the dominant labour model in these sectors.

Secondly, although for some workers the flexibility of temporary agency work fits around other responsibilities in their lives, this is not the case for most and is likely to only be an appealing prospect for workers for a short period of time and in highly specific circumstances (such as students or people with irregular care responsibilities). Most workers want to build a familiarity with their colleagues and not have to prove themselves over and over again in a new work environment every day. The appeal of work agency platforms for workers therefore has strict limits, although in sub-optimal labour market conditions many workers may not have a great deal of choice.

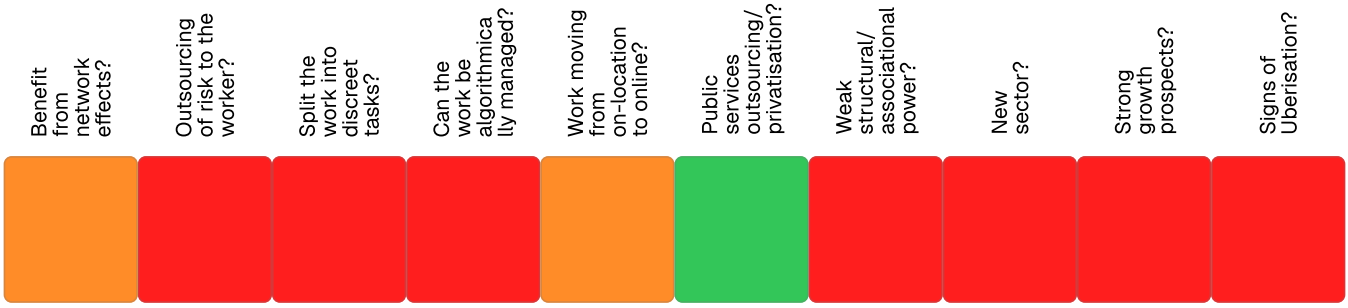
These are factors which will restrict the expansion of agency work platforms, rather than constraints on the digital labour platform model per se. It's not clear there are significant barriers to agency work platforms replacing temporary employment agencies as the dominant model in the agency work industry. This should draw the attention of unions, not least because the expansion of agency work of any type is always a threat to unionisation efforts. A notorious use of agency workers is as a scab labour force to replace employees when they are on strike. Despite this, there have been successful examples of unions organising agency workers and winning pay rises, such as in the Netherlands in 2017[96] and Germany in 2022.[97]

Unions should seek to combine organising efforts among agency workers - platform or otherwise - with utilising political and industrial leverage to limit the use of temporary workers in workplaces where employment contracts are standard.

95 Wall (2025). 'Gig economy firms warned by UK government they may be operating illegally'.
96 ETUC (2017). 'Fairer pay and security for Dutch temporary workers'
97 ETUC (2023). 'Union wins pay rises for temporary workers in Germany'

f) Data annotation/labelling

Table 7: Index of vulnerability to Uberisation in the data annotation/labelling industry



Data annotation/labelling (sometimes called 'microwork', 'crowdwork' or 'clickwork') is carrying out many small digital tasks in order to train, test and fix AI systems. Data annotation work has existed at least since the early 2000s when the internet was first going mainstream.[98] Amazon Mechanical Turk, one of the first big microwork platforms, launched in 2005. However, the rapid growth of generative AI in the last few years is transforming the data labelling industry and is therefore worthy of specific attention when we are considering the future of Uberisation.

What makes generative AI different from predictive AI is that it can create new content. This capacity to create is based on foundation models, the one part of the generative AI value chain which doesn't exist for predictive AI. Foundation models are large deep learning models which "are pretrained to create a particular type of content and can be adapted to support a wide range of tasks," according to business consultancy McKinsey.[99]

Foundation models, as the name suggests, provides the foundation for a host of generative AI tools that can be built on top of it, such as OpenAI's ChatGPT. Large Language Models (LLMs) are one form of foundation model. What foundation models require is to be trained on mountains of data which needs to be collected, prepared, tested and then fine-tuned. The testing and fine-tuning parts of this process requires a lot of human data annotators to work on it, turning the data from low to high quality.

It's often wrongly assumed that data annotation work finishes when the foundation model has been built. That would be true if generative AI always worked as it should, but there are now a wide variety of examples of generative AI working badly.[100] This is often related to

98 Brit Dawson (2022). "'Microworking' is the side-hustle's next con". GQ.
99 Tobias Härlin et al (2023). 'Exploring opportunities in the generative AI value chain'. McKinsey.
100 Dasha Maliugina (Published 2024, last updated 2025). 'When AI goes wrong: 10 examples of AI mistakes and failures'. Evidently AI.

what is known as ‘edge cases’; use cases which don’t fit neatly into the training data which the AI has been built on. Data annotators are therefore likely to always be needed not just to build generative AI systems but also to help fix them once they are built.

Because of this, generative AI requires a much larger workforce of data annotators than predictive AI has needed. There is no reliable data on the size of the industry at the moment, so growth projections should be taken with a pinch of salt, but Dimension Market Research estimate that the global data annotation and labelling market will grow from $2 billion in 2024 to $29.6 billion by 2033, an enormous growth rate of 34.4% per year.[101] This may not seem so far-fetched when one considers the unprecedented levels of venture capital investment going into generative AI, $79.2 billion from Europe, the United States and Israel alone in 2024, 40% of all tech VC investment and up 65% from VC investment in generative AI four years previously.[102] Human data annotators are and will be an inevitable by-product of this generative AI expansion.

At the moment, the industry appears to be divided between two models of organising data annotation work: on the one hand, a call-centre style set-up whereby data annotators have employment contracts (often fixed-term) and are closely monitored by supervisors in a target-driven office environment. On the other hand, a gig economy model where workers sign-in at home at their own time of choosing and fulfil tasks as and when they arise. For the generative AI companies and the outsourcing firms they work with, there are pluses and minuses to both models.

The call centre-style set-up (or ‘click work factory’) offers a greater level of control over the workforce. This is important because generative AI companies want strict confidentiality from their data annotators to keep what they see as a secret from the wider world, and it is easier to discipline workers in an office environment than if they are working from home. The office environment also offers greater control over the productivity of data annotators, which can be precisely monitored through digital and human surveillance. It also makes it much easier to verify the quality of data annotation if workers can be trained and supervised on-site.

The remote work model has two main advantages for companies. First, they can access a global labour market with very limited bargaining power, meaning pay can be kept at rock-bottom rates. Secondly, the costs and risks can be outsourced to the worker. There is no need to set-up and staff large call-centre style offices, and if there is a lack of demand then the data annotators do not have to be paid as they are freelancers. This latter point is

101 Dimension Market Research (2024). ‘Data Annotation and Labelling Market is expected to generate revenue of USD 29,584.2 Mn by 2033, at 34.4% CAGR’. GlobeNewswire.
102 Ryan Browne (2024). ‘Generative AI startups get 40% of all VC investment in cloud amid ChatGPT buzz’. CNBC

particularly important because of the current industry dynamics of generative AI, which follows what journalist Josh Dzeiza has called a "boom-and-bust cycle", where a foundation model requires intensive training and therefore intensive data labelling to meet a target launch date, followed by fallow periods at a stage of the development cycle where data annotation is less in demand.[103]

The generative AI industry is currently trying to get the best of both worlds: remote work with stringent controls. Scale AI, an American data annotation company focused on generative AI, is a case in point. Clients include the US Department of Defense, OpenAI and Google. The data annotators who work for ScaleAI do so through its in-house outsourcing agency called Remotasks, which the company says it established to guarantee commercial confidentiality for clients, but former insiders have claimed was an attempt to shield ScaleAI from scrutiny. A Forbes article in 2023 claimed 240,000 data annotators work for Remotasks worldwide, most of whom are in southeast Asia and Africa.[104]

Remotasks' model is to use remote work on a pay-per-task basis combined with punishing requirements for confidentiality and intensive worker surveillance. Workers must go through an unpaid training ('virtual boot camp') which takes five days, seven hours a day, to complete, and then pass a qualification exam, before starting. The compatibility of such a labour model with freelancing raises questions about potential bogus self-employment. The company claims to pay a 'living wage' based on analysis of the local labour market, with workers unable to sign-up if their IP is not based in specifically selected locations. However, one report found a Remotask worker in Nairobi earning just $10 for data annotating an 8-hour long video.[105]

Low-pay is by no means the only challenge 'Remotaskers' face. Former workers say they have been subject to surge-pricing, where pay is increased or decreased depending on how quickly the company needs the data, increasing the insecurity of their income. Unpredictability of income is also a problem due to the volatility of available work. This incentivises workers to maximise their hours when work is available, with workers known to sometimes work all through the night without rest to get tasks completed.

Also, Remotask frequently shifts the locations it offers work from, leaving workers who have invested time and money in becoming a data annotator for the company high and dry.[106] Other problems are typical of the industry: high levels of unpaid work, deactivated accounts with no recourse for appeal, pay rates tending to drop over time, no possibility for career progression, high-levels of monotony, and lack of transparency about the end client

103 Josh Dzieza (2023). 'AI is a lot of work'. The Verge.
104 Kenrick Cai (2023). 'How Alexandr Wang Turned An Army Of Clickworkers Into A $7.3 Billion AI Unicorn'. Forbes.
105 Josh Dzieza (2023), 'AI is a lot of work'.
106 Russell Brandom (2024). 'Scale AI's Remotasks platform is dropping whole countries without explanation'. Rest of World.

you are working for and what your work is being used for. Fairwork, the academic-action project on platform work, rated Remotask just one out of ten for fairness.[107] Scale AI is currently under investigation from the US Department of Labor for compliance with the Fair Labor Standards Act, which regulates unpaid wages, employment misclassification, and illegal retaliation against workers.[108]

A sure sign of Uberisation in the data annotation space is that Uber itself has established a data annotation division called 'Scaled Solutions',[109] the first time it has offered platform work outside of the transport sector. Scaled Solutions began hiring 'independent contractors' in India, the US, Canada, Poland and Nicaragua in November 2024. Uber's clients include Aurora, an autonomous driving company that was formerly owned by Uber, Luma AI, a foundation model generative AI firm, and Niantic, a software development company. One ScaledSolutions freelancer in India, a software engineer, told 'Bloomberg' that he was paid $2.37 per task to analyse two complex AI coding solutions and say which one was best.[110]

The experience of the ScaledSolutions software engineer in India speaks to how data annotation work is evolving to include what is called human feedback data. Humans receive two responses from an AI and have to rate which one is better and which is worse. This could be a software code as in the example above, or it could be asking questions to a big bank's chatbot. Human feedback data annotation has a higher skill level and can attract higher wages, sometimes a lot higher if specialist knowledge, for example in law, is required to come up with accurate answers. Giving generative AI more human characteristics also requires workers who understand culture-specific references, whether that be in relation to comedy, politics or sport.

Already, the importance of human feedback data is beginning to change the worker profile of the data annotation industry. Surge AI, a US rival of Scale AI, has focused on this higher-end data annotation market and the company says it hires around 100,000 data annotators, mainly in the US. Scale AI has put out an advert in the US looking for expertise in "health coaching, human resources, finance, economics, data science, programming, computer science, chemistry, biology, accounting, taxes, nutrition, physics, travel, K-12 education, sports journalism, and self-help."[111] As Generative AI becomes more advanced, the importance of a higher-qualified, and more location-dependent, data annotation workforce will grow.

107 Jonas C L Valente and Mark Graham (2023). 'Fairwork Cloudwork Ratings 2023: Work in the planetary labour market'. Fairwork.
108 Charles Rollet (2025). 'Scale AI is being investigated by the US Department of Labor'. TechCrunch.
109 Uber (accessed 2025). 'The best of Uber's data labeling, testing, and localization for your business'.
110 Natalie Lung (2024). 'Uber's Gig Workers Now Include Coders for Hire on AI Projects'. Bloomberg.
111 Josh Dzieza (2023), 'AI is a lot of work'.

This is likely to significantly change the dynamics of data annotation work in Europe. Survey evidence has shown that the vast majority of data annotators in Europe today do the work sporadically, either as a way to pass the time while making some money or as a supplement to their main source of income, with only 8% being dependent on data annotation for their income.[112] In a scenario where generative AI becomes a significant player in many high-skilled industries, data annotation could go from a marginal part of the European economy to the mainstream.

What is the ceiling for the growth of data annotation work? In the most ambitious projections for generative AI, anyone who today produces 'content' - text, image, video etc - of any form and in any sector could become a data annotator. The tipping point would be if it becomes significantly more efficient for an AI to do the content and for the worker to test and finesse what the AI produces.

For example, let's imagine a legal research generative AI firm called 'Paralegal AI' which provides an off-the-shelf paralegal service to all law firms. Like ChatGPT, lawyers who are building a case would type into the ParaLegal AI search engine what research they are looking for: what documents to review, what previous cases they want to be summarised, what strategic focus they are prioritising, and so forth. Paralegal AI would replace the human paralegal, but Paralegal AI would still need to hire workers with paralegal expertise as data labellers to train and fine-tune their AI. In this scenario, it's feasible that large sections of what today is the paralegal workforce would become a data annotation workforce and potentially be subject to Uberisation.

On the otherhand, many people in the legal field are sceptical about whether an AI would be able to accomplish all the tasks of the paralegal. It's possible that an AI could simply supplement some of the more monotonous tasks of a paralegal, which could actually free them up to concentrate on the more strategic questions in building a legal case.[113]

Beyond questions about the extent to which generative AI can carry out complex tasks currently done by humans, the major constraint on generative AI spreading across the economy is the financial and environmental cost of this technology. Generative AI is extremely capital intensive[114] and requires an enormous amount of energy intensive data centres to function.[115]

However, these challenges are not necessarily insurmountable, as the recent breakthrough

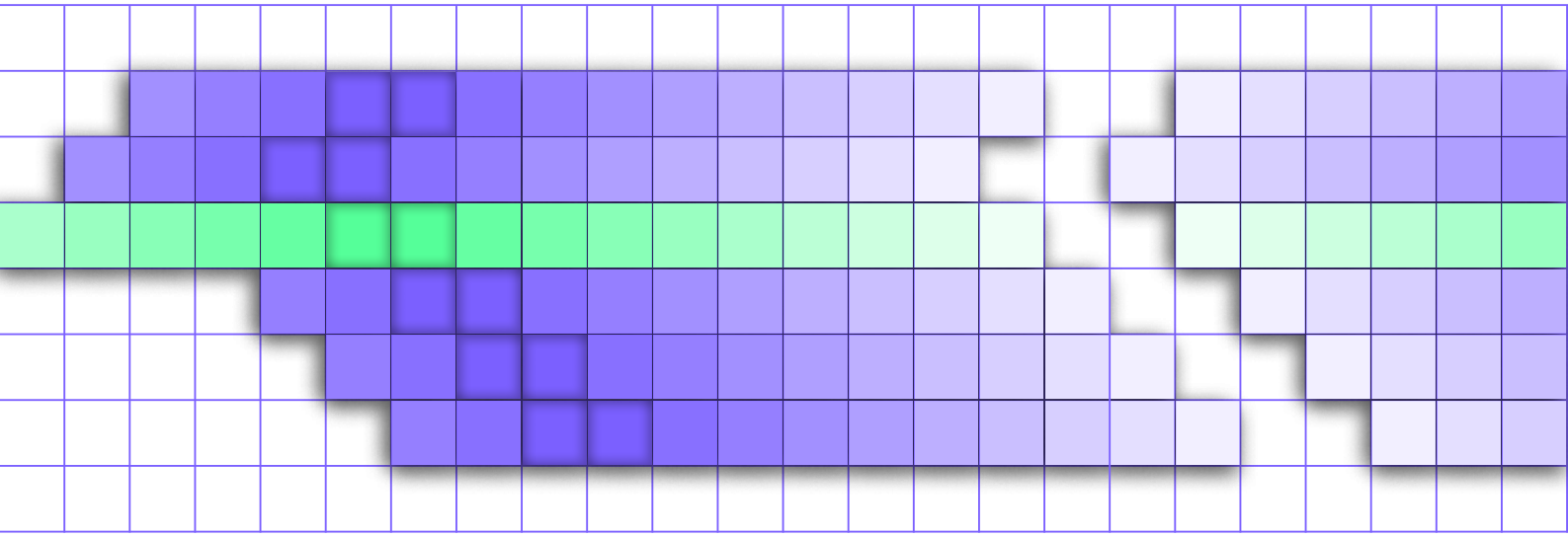
112 Ryan A Morgan, Ward van Zoonen and Claartje ter Hoeven (2023). 'Lost in the crowd? An investigation into where microwork is conducted and classifying worker types'. European Journal of Industrial Relations.
113 Thomson Reuters (2023). 'Will AI replace paralegals?'.
114 Ashu Garg (2024). 'The AI Hype: $600B question or $4.6T+ opportunity?'. Foundation Capital.
115 Anne-Laure Ligozat and Alex De Vries (2024). 'Generative AI: energy consumption soars'. Polytechnique Insights.

of DeepSeek in China - which has a similar capacity to ChatGPT at one-fiftieth of the cost - has proven.[116] DeepSeek is based on open source technology, rather than proprietary, meaning any software engineer can analyse, test and build on it. The use of fewer semiconductors to power DeepSeek also means less data centres are required, making it much more energy efficient than ChatGPT. This has the potential to open up generative AI to a much broader array of businesses and governments, expanding the possible use cases it could be rolled-out in.

While union organising in the data annotation industry at present is extremely difficult due to the global nature of the workforce, far-sighted unions which want to get their foot in the door at the start of the AI boom should consider the capacity for knowledge development and the strategic potential that organising in this industry offers. Politically, unions should be alert to the regulatory debates around generative AI, which so far have paid little attention to its potential impact on work, a major oversight considering the potentially far-reaching consequences of this technological shift for a broad swathe of industry sectors.

116 Brian Merchant (2025). 'The great undermining of the American AI industry'. Blood in the Machine.

4. Broader political economy dynamics affecting digital labour platforms



This report has identified the pre-conditions for an industry sector 'disruption', the specific characteristics of digital labour platform business models and why specific industries may have heightened vulnerability to those business models. But it is also necessary to consider macroeconomic and political trends which may significantly affect the trajectory of Uberisation, even after digital labour platforms are well established in an industry. These general circumstances, which can best be described as political economy dynamics, are important because the gig economy does not operate in a vacuum, it is significantly affected by broader shifts, especially in three areas: finance, the labour market and politics. Let's look at each in turn.

Finance

As briefly mentioned in section 2.1, Uber was the first global digital labour platform, and it is no coincidence that it emerged in the aftermath of the 2008 financial crisis. The state bailouts and quantitative easing (QE) which came in response to the crash pushed interest rates and inflation to rock-bottom and massively increased liquidity in the financial sector, with venture capital firms especially flush for cash.[117] In this context, Uber and other Silicon Valley tech start-up's appeared to be worthwhile investments, with the billions poured in to Uber transforming the economics of the taxi industry overnight.

117 William Janeway, Ramana Nanda and Matthew Rhodes-Kropf (2021). 'Venture Capital Booms and Startup Financing'. Harvard Business School, Working Paper 21-116, pg 8.

Many of the world's largest digital labour platforms can trace their origins back to this time when money was 'cheap'. However, the era of cheap money came to a shuddering halt in 2022 when inflation began to rise sharply in the context of the disruption to supply chains from the pandemic crisis and the impact of the Ukraine war on global trade, especially energy. With rising inflation came rising interest rates and what has been dubbed 'the tech downturn' began, with investors pulling back on broad tech start-up investments, focusing tech funds solely on generative AI.[118]

The tech downturn came as a crushing blow to many digital labour platforms which had sought to follow Uber's 'growth-before-profits' financial model: expand and defeat the market competition first using venture capital to subsidise operations, and once monopoly status has been achieved only then seek to raise prices and reap the profits.[119] In Europe's app-based grocery delivery sector, which boomed during the peak of the pandemic, tens of thousands of jobs were created and then destroyed within the space of a few years as the industry went from rapid, venture-capital fuelled boom to bust, as investors suddenly stopped bankrolling operations at a loss. Almost all of the players in European app-based grocery delivery either no longer exist or have reduced their operations only to their home country.[120]

The rise and fall of European app-based grocery delivery highlights the need for caution when considering future Uberisation trends. Just because an industry grows rapidly does not necessarily mean that growth can be sustained. Especially when digital labour platforms are highly reliant on venture capital, we should be vigilant about its future prospects. This is true for the data annotation/labelling companies which are growing rapidly in the context of the generative AI boom (see section 3.6) above for more), which many believe will turn out to be another financial bubble.[121]

Financial experts are paid millions to predict future financial trends because it is not an easy task, but there is certainly sound reasons to believe that the recent increase in inflation and interest rates are not a blip, and that the post-financial crisis conditions - which were the financial foundations for the emergence of the gig economy - are not likely to be the new normal. If that is the case, we can expect digital labour platforms to have to be much more reliant on their own revenue for expanding their operations, a significant limiting factor on their growth potential.

118 George Hammond and Tabby Kinder (2023). 'Venture capital funding in start-ups halves as tech downturn bites'. The FT.
119 Per Davidsson, Paul Steffens and Jason R. Fitzsimmons (2013). 'Chapter 7: Growing profitable or growing from profits: putting the horse in front of the cart?'. In 'New Perspectives on Firm Growth' (ed. Per Davidsson and Johan Wiklund), Monograph Book.
120 Ben Wray (2024). 'Podcast – The rise and fall of grocery delivery in Europe'. The Gig Economy Project.
121 Andrea Nepori (2024). 'Is Generative AI Just Another Tech Bubble?'. Direct Industry.

Labour market

Digital labour platforms are reliant on an abundant supply of (typically) cheap labour to make their business model viable. What is happening in the rest of the labour market is therefore a key determinant as to whether platforms can attract workers to work for them for a wage the platform is happy to pay. Uber CEO Dara Khosrowshahi has been quite open about the importance of this, stating in 2022 that the company was "benefiting from the inflationary environment" because the impact of inflation on the cost of living was pressuring more workers to drive for Uber to earn extra money.[122]

It follows that in the opposite context, when wages are rising, unemployment and under-employment is lower, and the labour market is 'tight', workers are going to be less attracted to low-waged, precarious work in the gig economy. At the peak of the pandemic, when many workers stopped driving for Uber due to health risks and rising wages in the rest of the economy, the company raised pay rates by 10% to try to attract them back into the car.[123]

Like finance, future trends in the labour market are also difficult to predict because of the high number of variables at play. But one variable we can be confident about is long-term demographic shifts. Europe's population is projected to be 152.2 million people fewer by the end of this century, according to the UN.[124] The working age population has already shrunk relative to the old-age population, with just three workers for every person of pension age today, compared to four to one 20 years ago and five to one 40 years ago.[125] Demographic pressures will almost certainly foster a labour market where workers are in greater demand and are more able to pick and choose who they work for. Already, demographic pressure is seen as one factor in the recent increase (albeit small) in wages in the global north.[126]

One factor which could offset this to some degree is automation. In ridehail, for instance, Tesla is on the verge of rolling-out 'robotaxis' in the US.[127] There has been experimentation with the use of robots in food delivery.[128] However, in both cases there remains significant safety and regulatory concerns.[129] More broadly, while automation may affect some parts of the platform economy significantly, other platform work jobs - such as in social care - are extremely difficult to automate. Also, as we have seen in the case of data annotation/

122 Ashley Capoot (2022). 'Uber CEO says the company may actually benefit from rising inflation'. CNBC.
123 Gwyn Topham (2021). 'Uber raises London prices by 10% in effort to lure back drivers'. The Guardian.
124 UN (2024). 'UN projects world population to peak within this century'.
125 Ben Wray (2025). 'Population Decline Will Transform Our Social World'. Jacobin.
126 Gad Levanon and Frank Steemers (2021). 'Why Wages Are Growing Rapidly Now— And Will Continue to in the Future'. The Conference Board.
127 Chris Kirkham and Abhirup Roy (2025). 'Tesla robotaxis by June? Musk turns to Texas for hands-off regulation'. Reuters.
128 The Local (2022). 'Food delivery robots land in the Spanish capital'.
129 Shubhangi Goel and Tom Carter (2024). 'Don't hold your breath waiting for a Tesla robotaxi'. Business Insider.

labelling above (see section 3.6), automation can destroy some jobs while creating others.

It's therefore difficult to make a conclusive statement about the future of the labour market, but we have at least identified some factors which are likely to tend towards tighter labour market conditions, which is not good for Uberisation.

Politics

As mentioned in section 2.1, Uberisation has been based on 'disrupting' existing regulatory regimes, especially in relation to labour law, and using lobbying pressure to force regulators to adapt laws around their business model. This has had significant success, since most countries in Europe have not forced Uber and other major digital labour platforms to significantly change their models to fit pre-existing regulatory regimes.

The most significant legislative development in Europe has been the passing of the EU Platform Work Directive (PWD),[130] which establishes a rebuttable legal presumption of employment in the platform economy, although the all-important details of that presumption will be decided at member-state level, which is likely to mean that the significant regulatory variability across the continent on platform work is set to continue.

If PWD does lead to the end of bogus self-employment in Europe's platform economy, it will have a major impact on the business model of platforms, since it has been estimated that the costs for platforms will rise by a third if they have to employ their workers.[131] Uber has threatened to stop operating in "hundreds" of European cities if they have to employ their drivers and riders,[132] although such threats should be taken with a pinch of salt as they were made in the context of PWD legislative negotiations when the company was seeking to exert leverage over law-makers.

Political trends are highly volatile. When the idea of the PWD was first broached by the European Commission in 2019, it was in the political context of widespread concern about the rise of precarious work in Europe, as the continent was emerging out of the Eurozone crisis. In 2025, political concerns have switched towards the continent's economic 'competitiveness' in the context of the rise of China and the United States' increasingly hostile trade relations with Europe. At time of writing the European Commission is pursuing a deregulatory agenda which includes reducing corporate responsibility for workers' rights

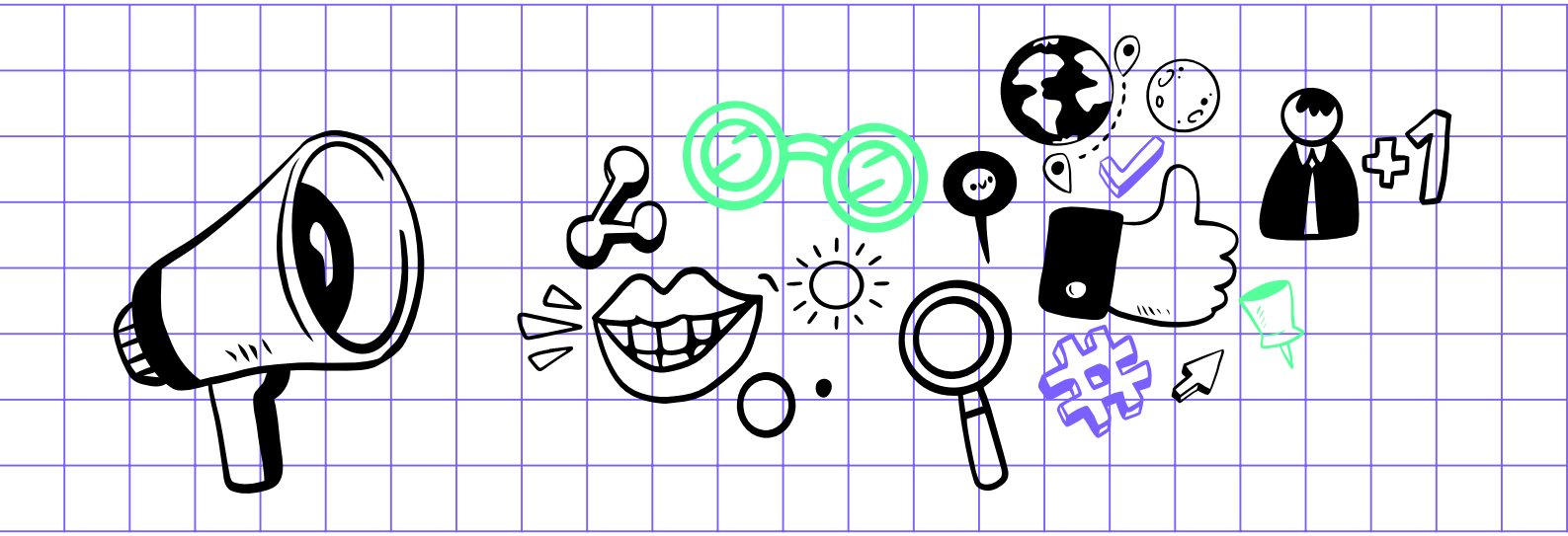
130 EUR-Lex (2024). 'Directive (EU) 2024/2831 of the European Parliament and of the Council of 23 October 2024 on improving working conditions in platform work'.
131 Eduard J. Alvarez-Palau (2022). 'Economic profitability of last-mile food delivery services: Lessons from Barcelona'. Research in Transportation Business & Management, Volume 45, Part A.
132 Javier Espinoza (2024). "Uber warns drivers would disappear from 'hundreds' of EU cities under gig work plan". The FT.

in the supply chain.[133]

Given this rapidly changing picture, it would be foolish to make bold predictions about how regulatory developments in Europe will affect Uberisation over the long-term. It's also difficult to predict what impact PWD will have on the size and shape of the platform workforce in Europe due to the many unknowns in the transposition and implementation of the directive in each member-state and how it may affect the platform business model. What we can be sure of is that politics is and will be a major factor in shaping how digital labour platforms operate going forward, which will in turn have a knock-on effect on the extent of Uberisation.

133 ETUC (2025). 'Unions protest against Omnibus' drive towards deregulation'.

5. How unions can respond to Uberisation



Unions need to develop a strategy to combat Uberisation at two levels: a prevention approach before industries are Uberised, and a transformation approach in industries where digital labour platform models are already well-established. Let's look at each in turn.

a) Preventing Uberisation

The introduction of AI technologies into the workplace needs to be tightly controlled to prevent risks to the quality and security of workers' jobs, and some applications of AI technologies should indeed be kept out of the work environment all together.

The time when unions are likely to have maximum leverage over companies in relation to new technology is before it has been introduced into the workplace. Unions should include in any collective agreement that the introduction of any new technology - no matter how seemingly small, insignificant or worker-friendly that technological change is presented as by management - must be subject to union consultation and negotiation. Ideally, unions should be involved at the design stage before new technologies are introduced, an approach which would be beneficial for management as well because it would help ensure worker buy-in, a key ingredient to making a success of new technology roll-out.

In a report on new technology in the workplace,[134] UNISON, a public-sector union in the UK, has proposed the following check-list for branches in relation to new technology roll-out:

134 Unison (2024). 'New technology and AI in the workplace: Incorporating monitoring and surveillance, and automation guidance'.

- Has the employer notified the workers of the nature and scope of the new technology that is being introduced?
- Who designed and owns these systems? Who are the developers and vendors and how does their contract with the employer cover data access and control, as well as system monitoring, maintenance, and redesign?
- Which managers oversee and are responsible for the systems? What mechanisms do they have in place should the systems fail, harm workers or be poorly governed?
- Is the reason given for introducing the new technology, valid and reasonable in the circumstances?
- How much will the new technological system cost? Does it represent good value for money?
- If automated systems are planned, find out about any anticipated consequences on job roles. Could it result in a restructure?
- Find out if data collected by digital platforms used by workers is being analysed.
- Find out how this data is being used by the employer.
- If used for monitoring or surveillance, could a less intrusive form of monitoring be used?
- If the new technological tool involves artificial intelligence, can the employer provide information on how it was trained, on what data and data sources are being used, which factors or 'variables' have been used to build the tool and how they have been weighted or prioritised, how the tool will be evaluated, what will happen if risks or harms are found?

UNISON also advises that impact assessments on equality, health and safety, and data protection are conducted by the company before the technology is introduced. This should also identify the actions the company will take to reduce or remove any risks. Also, the employer should produce an "AI explainability statement" so that workers understand in a non-technical way how all AI technologies are used and their effects.

We can add to this a number applications of AI technologies which unions should actively resist being brought into the workplace:

- Any form of algorithmically-determined ratings' or evaluations of the individual performance of workers.
- Any form of algorithmically-determined pay, including base rate, peak hours and bonuses.
- Any algorithmically-determined work allocation which reduces or increases the total number of hours worked per week, month or year.

- Any forms of automated or semi-automated punishments (by semi-automated, we mean decisions nominally taken by a human-being but without genuine human input in the collection and analysis of the facts, nor consideration of the perspective of the worker).

The aim of blocking the introduction of these forms of algorithmic management is to prevent a slippery slope where new technology roll-out leads to an erosion of workers' terms and conditions and, potentially, the Uberisation of the workplace.

Additionally, unions should be vigilant when employers' are actively seeking to move from an office environment to remote work. Of course, many workers prefer to work from home and that is perfectly understandable, but careful consideration should be given to the motivations for such a shift on the part of employers, as the risk is that it could be a pretext for Uberisation due to the potential the digital vector offers to rigidly split workflow into discreet tasks, surveil worker performance and establish automated or semi-automated forms of management evaluation and decision-making.

b) De-Uberisation

But what if a company or industry is already Uberised? In this context, the goal for unions should be to de-Uberise the workplace. What would de-Uberisation constitute?

First, addressing bogus self-employment is fundamental. We have seen that when food delivery platform Just Eat has moved from a freelance to an employment model, such as in Spain in 2021, that the intensity of algorithmic management immediately reduces because key aspects of the work relationship, most critically pay and work allocation, are based on objective, fixed criteria rather than being algorithmically-determined.[135] That is not to say that the working conditions suddenly become good, but the potential to push for good working conditions is higher because the employment contract provides a basis for workers to attain the legal rights attached to employment status, employees tend to be more motivated to organise in a union (as research from Austria has shown[136]), and the possibility to secure a collective agreement is therefore significantly improved.

Secondly, workers should be able to connect with one another and connect with a human resources department when they have a problem or concern. This human connection - horizontally to other workers and vertically to management - reduces the intensity of algorithmic management and provides a foundation for stronger worker power. This includes preventing the use of sub-contractors, which is another form of outsourcing the

135 Ben Wray (2025 forthcoming). 'Negotiating the Algorithm: Trade Union Manual'. ETUC.
136 Leonard Geyer, Kurt Vandaele and Nicolas Prinz (2023). 'Riding together? Why app-mediated food delivery couriers join trade unions in Austria'. Economic and Industrial Democracy, 45(3), 835-858.

risk to the worker and reducing the accountability of management for workers' terms and conditions.[137]

Third, the role of the algorithm in determining the most fundamental aspects of the working relationship should be kept to a minimum, following the data minimisation principle. Algorithmically-determined evaluations, ratings and punishments should be prevented, workers should have clear explanations for all automated and semi-automated decisions and the right to review those decisions. There should be a collective governance body which includes trained employee and employer representatives to manage issues in relation to digital monitoring and algorithmic management.[138]

In summary, a de-Uberised workplace would be one where:

- Workers go from bogus self-employment to employment rights;
- The technological veil is removed so that worker alienation and fragmentation is replaced by accountable, human relationships;
- The intensity and power of algorithmic management is significantly reduced;
- Workers can exercise a degree of control over the technologies that they work with, including if necessary placing restrictions and limitations on the way in which these technologies are applied.

De-Uberisation does not necessarily mean de-platformisation. As explained in section 1 of this report, platforms are digital infrastructure which allows multiple parties to interact with one another. It's perfectly possible to have workers connect with others on a platform without themselves being a commodity which is bought and sold on that platform. In other words, what we are seeking to eliminate is a platform model whereby job and pay insecurity is built into its foundations, but that does not mean workers cannot interact with customers via digital infrastructure.

Of course, achieving de-Uberisation is a much more difficult challenge than describing it. Unions will have to build up their industrial and political strength to do this.

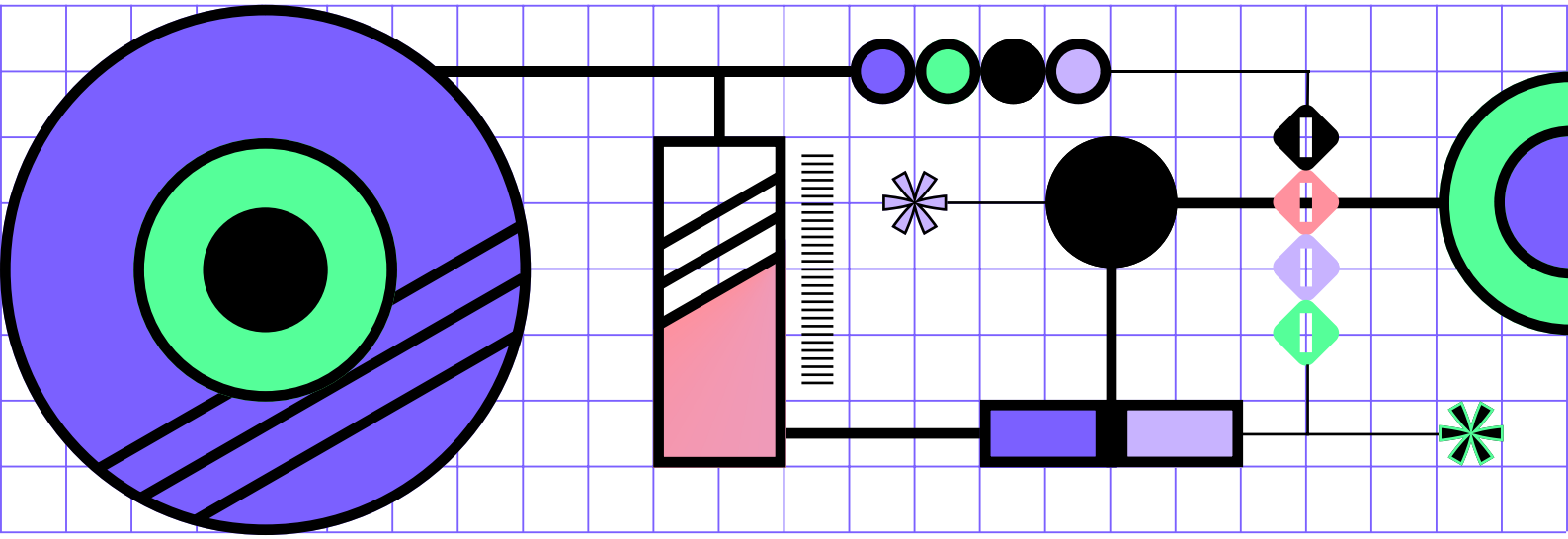
Industrially, unions should prioritise growing their presence in Uberised sectors where workers have structural power and the potential to build associational power is evident. Given many Uberised workers are in financially precarious situations, offering a platform worker discount to join the union may be one tool in running an effective union recruitment drive. Using digital organising tools and helping workers access and analyse their own data could also be useful to reach younger, more tech-savvy workers. Targeting high-profile

137 Borelli et al (2021). 'Securing workers' rights in sub-contracting chains: Case studies'. ETUC.
138 UNI Global Union (2017). 'Top 10 Principles: For workers' data privacy and protection'.

platforms for unionisation could also increase the profile of union efforts, increasing the chances of platform workers spontaneously trying to unionise.

Politically, the EU Platform Work Directive can be a tool in every member-state to push regulators and enforcement agencies to apply employment laws and laws relating to algorithmic workers' rights to digital labour platforms. Using strategic litigation and targeted campaigns focused on high-profile platforms can increase the pressure on governments to strictly apply labour laws to all workers in the gig economy. Ultimately, a combination of political pressure and industrial strength will be required to make de-Uberisation a realistic prospect.

6. Conclusion



This report has sought to identify industries at high-risk of Uberisation in Europe. We have drawn on the experience of Uberisation up to this point to identify its structural characteristics: its defining features, as well as the constraining factors which may inhibit its growth. This has been done with the aim of developing a realistic understanding of which workers could be faced with this significant change in the organisation of their work in the near future.

However, 'high-risk' should not be mistaken for 'inevitable'. Uberisation is not like the weather; a force of nature that cannot be stopped and must be adapted to. There are a whole host of factors which go into determining whether workers and entire sectors are Uberised, and once they are Uberised, whether they stay that way. Not least, the actions of workers and unions themselves can have a major impact in preventing Uberisation or de-Uberising a company or an industry. What we do matters.

For this reason, unions should not approach AI technologies with fear and trepidation. Across the long history of trade unionism, workers have undergone several rounds of technological transformation, and unions have always come out the other side, often changed but never eliminated. The technological change we are currently in the midst of is undoubtedly profound, but is it any more frightening than the introduction of new cotton spinning technologies to the weavers of the 19th century, or mechanisation was to the switchboard operators of the early 20th century?

134 Unison (2024). 'New technology and AI in the workplace: Incorporating monitoring and surveillance, and automation guidance'.

Like all of those technologies before it, AI technologies are ultimately made by and reliant on human labour. As such, AI can be controlled by workers so that it works for them, rather than against them. In so doing, a future where AI is used to carry out monotonous and bureaucratic tasks, reducing the length of the working day and freeing up workers to focus on the creative and critical tasks that only human-beings can do, is not impossible to imagine. That's the future we should all be fighting for.

Annex:

How many platform workers are there in Europe currently?

How big is the platform economy in Europe currently? That is a more complicated question than it may first appear. There are no official statistics on platform workers in Europe and, while there have been a number of studies, they have used a variety of definitions of platform work and a variety of methodologies, meaning they have often come to wildly different conclusions.

The European Commission (EC) study which informed the EC's draft proposal for the Platform Work Directive in 2021 calculated that there were 28.3 million platform workers in the European Union, and projected that figure would rise to 43 million by 2025.[139] These figures have since been widely reported in the media.[140]

However, it is most likely that the EC study was a major over-estimate. The method used to come to those figures were a largely self-selecting online survey, which, according to a 2023 EU Joint Research Centre (JRC) study, "tend to produce poor quality information" because of the amount of people who don't complete the survey and the inability to clarify the meaning of questions. Moreover, this survey method may well be "biased towards online platform work", JRC finds, because the survey is completed online and platform workers tend to spend more time online due to their job. Additionally, survey completion is not an activity that is very dissimilar to the tasks which many micro-task workers do on platforms every day, further increasing the chances of a disproportionate number of micro-taskers participating.[141]

The EC study's forecast for the number of on-location platform workers in Europe in 2025 projected that the number of transportation platform workers would double in four years. This estimate was based on Lithuanian and French administrative data only for ridehail drivers, and the data was projected forward on the assumption that the trends of the previous years would continue along the same trajectory for 2020 to 2025. Furthermore, it presumed that other on-location platform workers would match the projected growth rate of ridehail drivers.

139 Egidijus Barcevičius et al (2021). 'Study to support the impact assessment of an EU initiative to improve the working conditions in platform work'. European Commission.
140 For instance, see Lisa O'Carroll (2024). 'New EU gig economy laws saved from oblivion by Belgian compromise'. The Guardian.
141 Enrique Fernández-Macías et al (2023). 'The platformisation of work'.

This forecast appears in hindsight to have been very optimistic. The years 2020 to 2025 have seen substantial changes in the macro-economic situation for ridehail drivers and platforms due to the effects of Covid-19 and the inflation crisis, including many on-location digital labour platforms closing or exiting specific markets,[142] which are likely to have had a significant negative impact on the total number of on-location platform workers, albeit many will switch to platforms still operating in their respective countries/cities. A 2024 ETUI study of the food delivery sector in Europe found that the number of customers at Deliveroo and Just Eat, two of Europe's largest food delivery platforms, has been in decline since 2021, with any reduction of demand significantly affecting the willingness of riders to work on food delivery platforms.[143]

The EC study's forecast for online platform work was based on the University of Oxford's Online Labour Index (OLI), which used a complex methodology which combined publicly available data with a machine learning model where public data wasn't available, as well as qualitative data to adjust for specific issues, including workers being double counted on multiple platforms, some of which was based on non-representative samples. The OLI authors are clear that "there is considerable uncertainty in these estimates."[144] OLI has not been updated since 2021.

None of this is to criticise the EC study's methodology: the authors were working with the research they had available to them. The point is to demonstrate the genuine difficulties there have been in accurately modelling and forecasting platform work in Europe. Thankfully, in the time since the EC study was published, there have been some new European studies which have used more rigorous methodologies.

The EU JRC study mentioned above included a household survey of 3,000 workers in Germany and 4,000 workers in Spain, called AMPWork. This is likely to be more accurate because household survey methods are more rigorous and statistically representative of the working age population. The AMPWork study's authors found that there may be a "slight downward bias" against platform work in the study because on-location platform workers may be less likely to spend time at home than most workers. Also, migrants (especially undocumented migrants) who are proportionally over-represented in the platform economy may be less keen on responding to a household survey. Nonetheless, these methodological problems are likely to be small compared to the self-selecting online survey approach.

AMPWork found that 2.1% of workers had ever done platform work in Spain and 0.8% in

142 For example, in food delivery, Deliveroo has exited Spain and Netherlands since the pandemic crisis, while Just Eat has exited Portugal, Romania, Norway and France. These are two of the big players in European food delivery.
143 Kurt Vandaele (2024). 'Inevitable, vulnerable, unprofitable: an inquiry into food delivery platforms in Europe'. ETUI, pg 22.
144 Otto Kässi, Vili Lehdonvirta and Fabian Stephany (2021). 'How many online workers are there in the world? A data-driven assessment'. Open Research Europe.

in Germany. In population terms, that is approximately 670,000 people in Spain and 429,000 in Germany.[145] This contrasts enormously with the findings of the European Commission study, which found that there were 3.8 million in Germany doing platform work, an estimate almost 10 times larger. In Spain, the EC study estimated 4 million platform workers in 2020, almost six times as much as AMPWork found. We should also factor in that the European Commission study estimated that by 2023 (the year of the AMPWork study) the number of platform workers in the EU would have grown by 23%, putting the AMPWork study estimates and the EC study estimates even further out of kilter.

The likelihood that the platform economy is significantly smaller than the EC study estimated is backed-up by the European Trade Union Institute's Internet and Platform Work survey in 2021, which was conducted in 14 European countries via computer-assisted telephone calls and based on a probability sample. The sample size was between 1476 and 1760 in each country. The researchers stated that they thought their estimate may be "conservative" because respondents had to identify a digital labour platform they worked for and a specific task they did, which is a fairly high-bar for a telephone survey.

The ETUI study found that 4.3% of the working-age population in Europe did platform work, with this being a main form of work for 1.1%. If that figure was extrapolated across the EU it would mean 12.1 million workers had done platform work, with 3.1 million doing platform work as their main job. A platform workforce of 12.1 million is less than half of the EC study's estimate.

The ETUI survey also has a break down of the figures from Spain and Germany, so it's possible to compare it like-for-like with the AMPWork survey and European Commission study respectively, as we have done in Table 8 below.

Table 8: Number of platform workers in Europe by study

	Spain (total numbers)	Spain (%)	Germany (total numbers)	Germany (%)	EU-27 (total numbers)	EU-27 (%)
European Commission study (2021)	4 milllion	12.8 %	3.8 million	7.2 %	28.3 million	8.0 %
ETUI survey (2021)	1.5 million	4.8 %	2.3 million	4.4 %	12.1 million (extrapolated from 14 European countries)	3.4 %
European Commission study (2021)	670,000	2.1 %	430,000	0.8 %	-	-

145 Based on EuroStat's labour force survey (latest figures for 2023):

We can conclude that the European Commission study was likely a significant over-estimation of platform work in 2020, and therefore its forecast for 2025 is unlikely to be helpful for us. The authors of both the ETUI and JRC studies both thought their figures could be slight under-estimates based on the methodology, and they have both come up with significantly different results, with AMPWork's survey finding less than half the number of platform workers as the ETUI survey. We can therefore estimate that the platform economy between 2021 and 2023 was somewhere in the ballpark of between 2 to 5% of the workforce, a relatively small number but large enough to be considered a relevant section of Europe's economy in its own right.

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