In-depth-Analysis

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EMPLOYMENT AND SOCIAL AFFAIRS

THE SITUATION OF WORKERS IN THE COLLABORATIVE ECONOMY

BACKGROUND

The **collaborative economy** (also known as "sharing economy" or "platform economy" or "gig economy" or "crowd work") **is described as** transactions between peers, with platforms taking the role of brokers between peers, with a view to making resource utilisation more efficient (Jourdain 2016, 21). However, at times also businesses make use of online platforms to organise "the outsourcing of tasks, which would normally be delegated to a single employee, to a large pool of 'virtual workers'" (Eurofound 2015, 107, with examples of typical services commissioned).

Two forms of work can be differentiated (see JRC 2016, 52): is it a platform that mediates "physical services" such as plumbing, childcare or driving passengers around, which inevitably need to be performed locally? Sundararajan (2016, 1) calls these physical services "**work on-demand via apps/internet**". Or is it a "virtual service" which is transmitted via internet and can be performed anywhere in the world, such as accounting or translation tasks, also called "**crowdwork**" by Sundararajan (2016, 1)?

A common treatment of both forms of work is opportune as both are enabled by IT and make use of the internet to match supply and demand at extremely high speed, thus minimising transaction costs and labour market frictions (Sundararajan 2016, 3).

In the last few years, **platform work has been growing exponentially**. Expert estimations foresee that by 2020 in the US, contingent workers will make up nearly half of all US workers, and 11% of these will be working for on-demand platforms (Huws 2016, 27). In the EU, in 2015 gross revenue from collaborative platforms was estimated at \in 28 billion, almost doubling compared to 2014 (2016 **Commission Staff Working document**, p. 8/9).

INSIDE

This literature review, prepared by the European Parliament's Policy Department A on Economic and Scientific Policy, provides a background and main findings of relevant papers on the situation of workers in the collaborative economy.

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It is not clear whether transactions are made between the workers and the client, with the platform taking a commission on the price agreed, or whether the platform makes a transaction with the client and pays the workers a set fee; the latter seems to be the case for Uber (Aloisi 2016, 674). A 2016 study (Aloisi 2016, 665) finds that

"online platforms retain for themselves, on average, 15% of the fee as commission and exclude all liabilities, thereby trying to depict their role as limited to the sole activity of an intermediary".

"In some cases, no relationship exists between the client and the worker: [the worker] executes the task and is paid by the platform, which then provides the result to the client. In other cases, the platform acts more as a facilitator of the relationship between clients and workers (Risak and Warter, 2015)." (Sundararajan 2016, 3)

Much expertise on the subject deals with the US labour market, which the EU labour market is tailing in terms of numbers of workers and users of online platforms. However, as the basic problems posed are similar, the present literature review will also look at finding from US literature as indicators of future developments in Europe.

Why did it develop in the last few years only and not earlier?

The recent development of online mediating platforms has been made possible by:

- the internet and the development of high-speed networks;
- Big data, i.e. the exploitation of masses of commercial, personal and geographic data which is merged and combined by online platforms;
- the explosion of new forms of mobile devices which allow immediate internet access at all times and places and allows for real on-demand services where- and whenever they arise (Degryse 2016, 7).

Put differently (Degryse 2016, 12):

"We are moving out of an economy where it was the master of infrastructures who created (and captured) value and into an economy where it is the master of data who creates (and captures) value."

"First, platforms provide an algorithm that allows for an effective matching of labour providers and users. Second, technology brings down transaction costs to the extent that platforms can also facilitate microtransactions. Third, platforms provide services to reduce or manage risks involved in market transactions, hence addressing such market failures as incomplete information about the labour provider or the risks of cheating." (Drahokoupil 2016, 2)

A 2015 European Parliament study concurs (Robertshaw 2015, 79):

"Data will become the main source of desire, the preeminent medium of exchange and the main source of tension".

Creating digital trust

Through the collaborative economy we let strangers sleep in our beds and drive our cars or babysit our kids - all activities we would in the past only have entrusted to people we know as neighbours or friends or perhaps strangers which were recommended to us through people we know. The collaborative economy therefore needs **specific features to "recreate" this social trust** (Codagnone 2016, 22). Most of this is done through review or reputation mechanisms on the online platforms. E.g. on Airbnb, guests and hosts can rate each other and describe their experience, while giving further in-depth feedback to the host which does not impact on the public rating. For Sundararajan (2016, 60), the explosion of collaborative platforms in the last years can be attributed

"to dramatic improvements in our ability to get people to trust others they don't know through the use of different systems generating [a] reliable [...] digital trust infrastructure".

Sundararajan (2016, 141) rightfully observes

"informal exchanges are brought into the mainstream economy, creating service providers that are "in between" personal and professional."

The Commission, which on 1 June 2016 has **published guidance** on how existing rules already apply to the collaborative economy, and has identified a number of good practices across EU countries, refers to the fact that online platforms make use of the social trust generated when individuals supposedly "share" their assets with each other, although some transactions clearly emanate from professionals. Accordingly, the Commission Communication recognises that EU countries should differentiate between individual citizens providing products and services on an occasional basis (who should not have to bear "disproportionate administrative burdens") and providers acting in a professional capacity, e.g. through income thresholds. The Communication also states that it is up to each worker to conform to the tax- system of his country of work.

"Collaborative economy" or "sharing economy" versus "platform economy"

However, the **terminology of "collaborative" or also "sharing economy" is not undisputed** (for further examples and discussion see Codagnone 2016, 6/7, with an interesting overview and mapping of "sharing platforms on p. 10-13). Several authors find that the **transactions** taking place are standard market transactions, which would be better described as "renting" rather than "sharing" or "collaborating" (Drahokoupil 2016, 2).

"'Sharing is a form of social exchange that takes place among people known to each other, without any profit. Sharing is an established practice, and dominates particular aspects of our life, such as within the family. (...) When "sharing" is market-mediated — when a company is an intermediary between consumers who don't know each other — it is no longer sharing at all. Rather, consumers are paying to access someone else's goods or services for a particular period of time. It is an economic exchange, and consumers are after utilitarian, rather than social, value'." (Degryse 2016, 28)

An alternative term proposed is "platform economy" in order to point to the matching service between worker and client through an online platform (Drahokoupil 2016, 2).

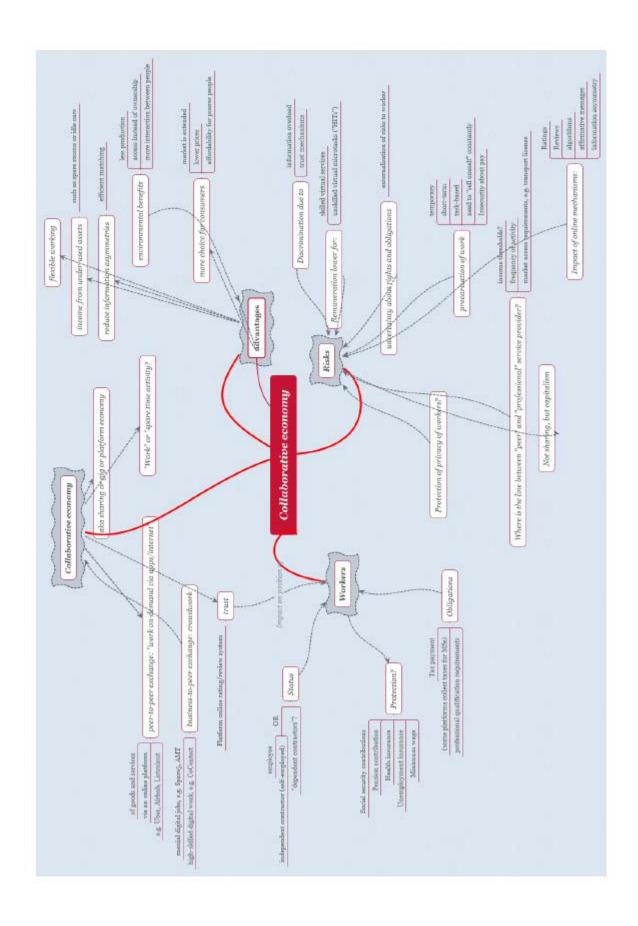
Is platform work "work" at all?

Another discussion relates to **crowd working as "spare-time activity"**, which does not do justice to many workers in the sector. While a recent study (Eurofound 2015, 113) found that workers working for European platforms do not seem intent on making crowd employment their main job, but rather consider it a spare-time activity alongside another job, education or care responsibilities, an ILO study (Berg 2016, 16) indicates that for 38 per cent of American workers and 49 per cent of Indian workers of Amazon Mechanical Turk, platform work constitutes their main source of income.

Other surveys indicate that the **primary motivation** for workers to crowd work (even for very low paid tasks e.g. on Amazon Mechanical Turk) is **earning money** (JRC 2016, 6/34/53). The control of working conditions (meaning the flexibility of when to work where for achieving a better work-life-balance) comes second place (Berg 2016, 7). The least often reason cited is "for personal enjoyment" (JRC 2016, 34).

When talking about working in the collaborative economy, terminology thus matters: talking about "gigs" or fulfilling "tasks" or "giving rides" obscures that this is work, done by workers who earn their income - and not "some extra money" which "entails no real work" (Berg/Di Stefano 2015; Berg 2016, 18; De Stefano 2016, 5). As a 2016 ILO (Berg 2016, 19) study rightfully states:

"when the discourse evokes 'pin money,' 'extra money' or 'beer money' as motivations for work, there is less support or perceived need for regulating it."



FINDINGS FROM RECENT LITERATURE

Legal status of platform workers

The **collaborative economy has developed at the fringes of regulation** (Aloisi 2016, 686), with technology developing faster than regulation (Maselli 2016, 1):

"These virtual sourcing platforms have somehow developed "in the wild," at least from a legal standpoint: entering a market first, taking advantage of its dominant position, exercising a significant degree of control over workers, evading regulations and only then dealing with legal compliance".

However, their long-term survival is dependent on clear and reliable regulation (Jourdain 2016, 15).

At this time, a recent study could **not identify any legal framework specifically addressing crowd employment in Europe** (Eurofound 2015, 109,):

"For Germany, Klebe and Neugebauer (2014) clarify that the worker acts as if self-employed, and economic independence is assumed. Consequently, labour law does not apply, and the worker is not entitled to a minimum wage, annual leave or pay in case of sickness. The case studies for this project indicate the same is true for other European countries. In general, the employment relationship between the client and the worker is based on individual agreement, hence pay, working conditions and other issues, notably intellectual property rights, are determined either by the two parties or the terms and conditions of the platform (Klebe and Neugebauer, 2014)."

In most cases, **platform workers are classified as self-employed**, see Valenduc 2016, 34:

"Workers are effectively self-employed, and the platform's terms and conditions generally dictate all the details (such as pay, working conditions and intellectual property)".

This leads the ILO to conclude that

"at present, "platforms are not regulated by governments, but this does not mean that they are not regulated, or that it is a free exchange of services between independent parties. Rather, the platforms regulate the market" (Berg 2016, 18).

It is contested that the regular classification of platform workers as "self-employed" really does justice to the original idea of self-employed. As judge Chhabria aptly explained it in the Lyft litigation in California (Aloisi 2016, 676): Self-employed possess specific skills and exercise great discretion over the way work is actually done; they are normally hired for tasks that a client's employees are unable to perform and which are tangential to the day-to-day-operations of the client's business. However, on-demand drivers (like Lyft drivers)

"use no special skill when they give rides. Their work is central, not tangential, to Lyft's business."

Given this lack of specific skills, while - for some drivers - being dependent on working for Lyft for their weekly paycheck, drivers lack any power to negotiate a specific rate with a potential client. In Judge Chhabria's opinion, such a driver looks very much like an employee. Similarly, an Etui 2016 publication pointedly asks (Degryse 2016, 35):

"Do [platform workers'] rates of pay take account of the fact that they use and have to maintain their own equipment, that they pay their own insurance, that they should be paying social security contributions, and that they lack cover in the event of sickness or accident?".

Also, typically, firms have greater control albeit higher costs over employees as compared to hiring independent contractors over whom they have much less control but who are cheaper to hire for specific, non-recurring tasks.

Platforms, however, **increasingly exert control over platform workers while maintaining low costs** (JRC 2016, 50). Sundararajan (2016, 4) notes that

"both crowdwork and work on demand via apps allow for a far-reaching "personal outsourcing" of activities to individuals [..., which] grants even more leverage to standardising terms and conditions of contracting out and assigning work whilst keeping a considerable control of business processes and outputs".

However, many authors feel that labour law is slow in adapting to new economic realities, and instead of

"adapting to the evolving needs of both workers and those who would benefit from their skills, [...] **labour law continue[s] to depend on the historical distinction between an employee and independent contractor**" (Kennedy 2016, 2).

Whether someone is an employee or a freelancer is far from clear-cut for most platform workers. This introduces a great deal of legal uncertainty, which has also given rise to litigation in the US in the following cases:

- Crowdflower where workers requested the minimum wage settlement reached;
- Lyft where employee benefits and cost reimbursements were claimed settlement reached; and
- Uber 1-3 with claims for employee benefits and cost reimbursement- settlement reached in Uber 1, conferring due process rights (grievance process heard by an arbitrator) in case of account deactivation to workers; Uber 2-3 still ongoing (JRC 2016, 48/49).

Due to the settlements reached, **the issue of classification of platform workers as employees still remains open in the US**; they do not prevent any other governmental regulator from determining e.g. that platform workers are employees and asking for retroactive payment of taxes or contributions (JRC 2016, 49).

European courts have been concerned with litigation on collaborative platforms, especially Uber, for some years, but recently, a Spanish judge has submitted a preliminary question to the European Court of Justice in **case C-434/15** to decide whether Uber should be considered a transport company or a digital service: If the former, its drivers could potentially request Uber to pay e.g. their insurance fees; if the latter, national regulators would have it much harder to regulate Uber's activities because of their freedom to provide services digitally across the EU Internal Market.

The uncertainty of classification of workers leads to uncertainty as to which regulations apply (e.g. are Uber drivers "professionally transporting passengers" and have thus to be licensed?) and thus discourages the creation of further job opportunities because online platforms might fear potential ex-post liabilities.

The current legal differentiation between employees and self-employed also has the unintended side-effect of preventing platforms from providing more support to workers (e.g. offering them training or additional insurance) because due to the support given, the legal standard to determine whether someone is an employee could transform the relationship into an employment one, thereby attaching a host of legal regulations to conform with all of a sudden (Kennedy 2016, 7). As a result, online platforms are often reluctant to alter their business model to provide extra help to workers (Kennedy 2016,12; Sundararajan 2016, 182).

A preliminary finding in the literature is that "current labour laws [with the current differentiation between employees and self-employed] do a poor job of benefiting the workers they are intended to protect" (Kennedy 2016, 2).

Any future regulation should focus on increasing protection of workers without suddenly increasing the costs for platforms, though (JRC 2016, 57). It is proposed to establish a "Fair and Dignified Support Infrastructure" for platform workers, which could include (JRC 2016, 58):

- a **minimum wage**, which could e.g. be calculated with the help of technology, according to the average completion time for a task (Berg 2016, 23). It could be coupled with a maximum number of hours worked per day, and a prohibition on deactiving workers' accounts if their acceptance rate drops; minimum wage;
- a minimal form of social protection and health insurance;
- liability insurance for damage to third parties (see also Valenduc 2016, 42);
- regulation of privacy protection;
- algorithms that may not produce discrimination.

Other authors suggest the following (Valenduc 2016, 42):

- "Methods need to be found of **applying existing European directives and national legislation to work of this kind**, and status-related issues must be clarified so that it falls within the scope of the relevant directives on working time, temporary work, undeclared work, fair pay, etc."
- "Consideration should be given to ways of **certifying the skills offered by platforms**, particularly in fields such as healthcare or electrical services."

Some other authors think about:

- whether it would be useful to "**let the market try first**", and once an online platform has passed the 'startup phase', it could be invited by the regulator to take certain responsibilities vis-à-vis its workers (Maselli 2016, 7).
- **prohibiting exclusivity clauses**, so that e.g. drivers can drive not only for Uber but also for Lyft. This seems a logical proposal as normally only employees can be restrained from working for other enterprises (De Stefano 2016, 14).
- **removing anti-cartel protection from individual platform workers**, so that they can organise in unions to fight for better work conditions (see also The Hamilton Project 2015, 5; De Stefano 2016, 23).

Increasing importance of platform work

The 2016 Commission Staff Working document, p. 40 describes that

"[t]here are indications that the type of work associated with the collaborative economy is increasing",

with **rising rates of self-employment in the EU** (2006: 3.7%, 2016: 5.6%) and a higher proportion of workers taking up second jobs (2002: 3.6%; 2016: 4.2%). The Commission is, however, noting that these trends started before the onset of the collaborative economy, and are thus in line with longer-term employment shifts in the EU (Maselli 2016, 6). A Commission 2016 study finds that

"the emergence of new digitalised work arrangements is not unrelated to the broader trend of work destandardisation with the widespread diffusion of non-standard work and to job polarisation with the hollowing out of standard middle level jobs" (JRC 2016, 52).

This feeling is echoed by De Stefano (2016, 6):

"extreme flexibility, shifting of risks to workers and income instability have long become a reality for a portion of the workforce in current labour markets that goes far beyond the persons employed in the gigeconomy. It can indeed be argued that [working on collaborative platforms is] part of a much vaster trend towards the casualization of labour (Bowles and MacPhail, 2008; Campbell, 2004)"

Typical sectors of the collaborative economy are web content and software development, advertising, audio and video transcription, database building, market research and digitisation (Eurofound 2015, 112). Typical tasks on platforms such as Amazon Mechanical Turk are creating metadata or removing duplicate entries from databases, completing surveys and transcribing audio-visual material (Eurofound 2015, 107).

A survey of 7000 employers found that 76% of employers hired platform workers because they were less expensive, 46% because they could get work done faster and 31% because it was difficult to find talent locally. Between 15-

20% of employers stated that in the absence of the possibility of hiring crowd workers, they would have made local hiring (JRC 2016, 42).

Interestingly, **platform work does not attract the unemployed or inactive, but rather the under-employed or the self-employed**, thus those who wish to work more but so far have been unable to find full-time employment (JRC 2016, 6/34/40):

"[Two studies] suggest that individuals from the most socially-excluded social groups are not aware of these digital labour possibilities, and do not have the skills to participate in them".

Workers in the collaborative economy are mostly younger than the corresponding workforce and more highlyeducated; interestingly, the gender balance (at least in developed countries) is better than in the corresponding "offline" workforce (JRC 2016, 31).

However, platform work itself does not seem to solve the problem of under-employment, as 90% of crowd workers in a survey reported that they would like to do more crowd work, but that not enough work was available (Berg 2016, 13).

The Eurofound 2015 study concludes (p. 144):

"It can therefore be assumed that these forms of employment – in general – are a necessary element of modern labour markets and they are unlikely to disappear. Those that pose inherent danger for working conditions and the labour market should be addressed through legislation or regulation."

Effect of online matching platforms on the labour market

Positive effects of crowd working on the labour market mentioned in the literature (Eurofound 2015, 116) are:

Positive	But	
Making labour markets more inclusive : online platforms create new opportunities for people who have care obligations or are disabled and cannot leave their home, or who live in rural areas and places damaged by war or natural disasters, as it does require little capital investment and employee training.	However, such job opportunities depend on the availability of a quick internet connection, which is not a given in rural or war-torn areas or in developing countries (De Stefano 2016, 10).	
Platform work gives good access to work opportunities for freelancers and early work experience for young labour market entrants. Through participating in competitions, especially young professionals with good skills but no track record have an opportunity to show their ideas and have them assessed by large companies; even if they don't win the competition, they get valuable insight into potential clients' expectations.		
The possible "stepping-stone" theory of positive first experiences between workers and clients leading to a more stable employment	This seems, however, not to ring true, not least because platforms either do not communicate the name of the client to the worker or explicitly prohibit by-passing the platform for future transactions.	
Platform workers can control when, where and what they work , and thus better fit their working into their private life.	This seems, however, not true for a considerable part of crowd workers who work for platforms which are demand-dependent (JRC 2016, 37). However, surveys conducted confirm that workers seem to be aware that they trade the security and benefits for flexibility (Aloisi 2016, 662). De Stefano (2016, 5/6) notes that the flexibility argument should not be overstated: "competition between workers [] pushes compensations so down that people may be forced to work very long hours and to give up a good deal of flexibility in order to make actual earnings".	

In the literature, the following **negative effects** are discussed (Drahokoupil 2016, 4):

- transforming employment relationships into activities of self-employment;
- dehumanising of the "invisible workers" who are doing the brunt work behind the screens (Sundararajan 2016, 4/5): Workers that are available on-demand, 24/7, supplied by IT channels, don't have a face and there is the danger that they could be expected to run as flawlessly and smoothly as a software. Only this has the drawback that if something goes amiss (which might not be in the worker's area of responsibility, like a power outage), the worker receives unfavourable reviews on the platform, which could severely impede his ability to be hired for future work on this platform.
- through the remote provision of services, work from local labour markets could be offshored although this has not been as strong an effect as expected, see below. However, offshoring does nowadays not only cover moving work to India (and thus creating a form of "virtual immigration" (Degryse 2016, 32)), but it also means dividing the work of a former employee into different tasks, which are then allotted to a multitude of individual crowd workers in the same country which are paid less per hour and do not enjoy any benefits ("local offshoring");
- increased competition by lowering barriers to entry into the self-employed labour market, leading to pressure on pay and working conditions;
- rating/reputation mechanisms used lead to **increase in "begging and bragging" rituals** to land the next job;
- increased breakdown of working activities into individual (at the low end) mindless tasks.
- In addition, participation in crowd working presupposes internet access and certain IT skills, which
 excludes some population groups from the outset; see De Stefano 2016, 10 which notes that low-income
 workers scarcely benefit from these opportunities. Besides, temporary jobs can become 'traps' and thus
 reduce social mobility (JRC 2016, 29).
- Trends towards work becoming more flexible have also been associated with growing inequality, connected with the wage penalty of non-standard work and the increasing risk of falling into poverty (JRC 2016, 29): "A downturn in demand, or sudden change in consumer needs, or a personal injury or sickness, can make it impossible to pay the bills. It eliminates labor protections such as the minimum wage, worker safety, family and medical leave, and overtime" (Degryse 2016, 42).
- If crowd workers are not adequately protected against the hazards of (professional) life, **in the end governments have to shoulder the bill** and provide social protection for precarious workers, which will increase fiscal costs (JRC 2016, 29).
- The unlimited reach of the internet also **revives questions of fundamental rights at work** as covered through the 1998 ILO Declaration on Fundamental Principles and Rights at Work, namely on forced labour and on child labour. As to the former, e.g. in China people are "employed" in sweatshops for "gold
- farming", meaning they are paid to harvest virtual treasures for online gamers in the developed world who want to advance quickly in their game of choice to build a high-level character (De Stefano 2016, 10).

These authors therefore see the platform economy as contributing to an increase in precarious work like bogus self-employment, and warn against a possible setting of employment standards on the basis of platform economy practices (Eurofound 2015, 117),

"which might occur from the moment that the platforms are considered a serious competition by the incumbents." (De Groen/Maselli 2016, 16)

Remuneration of platform workers

In general, it seems to be the case that remuneration depends largely on the share of the labour force that could potentially perform the service (De Groen/Maselli 2016, 6):

"Hence, suppliers of physical/local services seem to earn more per hour than suppliers of virtual services, and high-skilled performers earn more than performers of low-to-medium skilled services."

Physical services ("work on-demand via apps/internet")

Online mediated "physical" services have **average rates comparable to those in the "offline" labour market**, although a slight premium can be discerned, as can be seen for the Belgian platform ListMinut (which intermediates local services similarly to TaskRabbit in the US), as reported in the 2016 **Commission Staff Working document** on the collaborative economy (De Groen 2016,12/13; De Groen/Maselli 2016, 14):

Category	ListMinut (completed tasks)	Offline labour market	Difference
1. Home repair	17.50	12.70	+4.8
2. Animals	26.00	10.82	+15.18
3. Households	10.50	8.20	+2.3
4. Tutoring	15.00	13.06	+1.94
5. Events	13.00	12.12	+0.88
6. Gardening	13.00	11.35	+1.65
7. Transport	17.50	10.94	+6.56
8. Computer science	14.00	12.51	+1.49
9. Babysitting	7.67	10.78	-3.11
10. Wellness	26.00	10.29	+15.71

Median gross hourly earnings by category (Euros)

Source: De Groen 2016, 13

In addition, for this Belgian platform, more than 90% of the tasks yield hourly earnings above the minimum wage, with the exception of babysitting activities, which are typically done by teenagers and not the average adult workforce (De Groen 2016,11).

The skills dimension does not matter much, as for "physical" services, even low- and medium-skilled online mediated tasks are similarly remunerated as in the offline labour market.

Interestingly, when demand exceeds supply, there is no effect on price, but instead the supply expands, e.g. by contractors working more while the average price on TaskRabbit stays between \$52-59 per job (JRC 2016, 45).

Virtual services ("crowdwork")

As to the divergence of rates from offline markets for "virtual services", the Commission finds that in case the platform operates internationally, the platforms set an equilibrium price that is between the rates charged on the national market of the participants. As an example,. Italian participants on CoContest, an interior design platform,

get 30% lower rates than in the Italian offline market for the same "virtual design service", while Serbian participants score rates which are three times higher than on the Serbian offline market.

A more in-depth study on CoContest has shown that it makes only sense to participate in contests for designers in high income countries such as Italy if they have little experience and face high labour-market entry barriers, or if they value the flexibility more, as the average gross hourly pay of 5€ does not allow to reach the Italian average income of 1.477,- €/month in an average 8-hour working day. For Serbian designers, however, it makes economic sense, as it is much easier to match the average Serbian salary of 334 €/month (Maselli 2015, 10-12). A Commission 2016 report notes that working for different platforms can yield an income of 2,000-3,000 \$/month, if a workers is ready to work up to 12-15 hours a day (JRC 2016, 36). However, this is not possible for the majority of platform workers as "superstar" effects exist (20% of contractors - with good ratings - do 80% of the jobs) on many of these digital markets (JRC 2016, 36). This concurs with the European Commission's findings that workers with no experience have a much lower probability of being hired, due to missing confidence-inducing ratings from previous jobs. The Commission even finds that that there is no correlation between earnings and skills/experience,

but that, instead, reputational mechanisms (such as customer ratings on previous jobs) do have an effect (JRC 2016, 41).

Interestingly, although per se platform workers "are placed in a worldwide competition on price" (Degryse 2016, 38; Aloisi 2016, 661), **outsourcing to lower-wage countries** does not happen as much as could be expected; the online virtual service market is not as beneficial as expected for developing countries as a

"foreignness liability" (...) limits the globalised trade of digital labour and the expected wage convergence" (JRC 2016, 7).

However, **unskilled virtual tasks**, the so-called "micro-tasks" or HITs (Human Intelligence Tasks, such as tagging photos on websites) only **yield particularly low rates of remuneration**, especially if converted into hourly rates. A Eurofound 2015 study (p. 115) finds an hourly rate of about 2 \$ for tasks on Amazon Mechanical Turk, which are paid as low as 0,01\$ per task.

In addition, **not all work is compensated (**De Groen/Maselli 2016, 10/11). A 2016 ILO study found that workers spend on average 18 min of unpaid searching for every hour of paid work (Berg 2016, 11). In a survey, crowd workers on Amazon Mechanical Turk report (Berg 2016, 15):

- "So far it's been a relatively positive experience; I just wish I didn't have to spend so much time looking for work versus actually doing the work."
- "It's an extremely unstable existence....I cannot say to myself I'm going to log in from 9 to 5 today and do enough work to make X amount of dollars. Sometimes there is work you can do, sometimes there isn't....So it becomes right time, right place, and fighting other workers for the better paying tasks/work if/when they are available. If you want to be successful, you can't stop. You can't log out...."

In the case of contest platforms (such as CoContest for design), of an average of ten participating designers, only the three best are rewarded (De Groen/Maselli 2016, 11; Eurofound 2015, 111):

"The winner of the contest receives 70%, the runner-up 20% and the third 10% of the amount paid after deduction of the commission for the platform. This scheme implies that the participating designers have a large chance of not being rewarded for their work at all."

So to speak, in the digital economy, 'the winner takes it all' and pay is not calculated any more on basis of absolute performance but on relative performance, meaning the one who is slightly better than the rest gets the whole market (Degryse 2016, 43).

Another negative aspect regarding remuneration is the **insecurity about pay** (Eurofound 2015, 115; Broughton 2016, 117). On Amazon Mechanical Turk, if a client is not happy with the work provided, he can refuse to pay,

without giving any justification (JRC 2016, 37) while retaining the work done (Aloisi 2016, 667) and without the platform effectively mediating between the worker and the client (Eurofound 2015, 115):

"[workers] report that Amazon will very rarely step in to arbitrate disputes when an employer and worker disagree about work quality or where the fault lies for bad work" (Degryse 2016, 37; Berg 2016, 15).

In a survey, 94 per cent of platform workers report having had work rejected or having been refused payment (Berg 2016, 15). Lacking an enforcement mechanism (Aloisi 2016, 667), this has led to instances of parallel creation of worker websites with fora where to exchange experiences and "blacklist" certain clients, e.g. Turkopticon or the platform FairCrowdWork created by German labour union IG Metall (De Stefano 2016, 23).

Some European platforms **do not set any prices but leave it to the discretion of the worker and the client to agree on an amount** and mode of payment. Others (like topdesigner.cz and adtriboo.com, a Spanish platform) apply a minimum or even fixed price for specific tasks, e.g. on adtriboo.com a minimum price from € 200.- for designing a logo to € 3,000.- for producing a video, based on market prices and assumed number of hours spent by the average worker for such a task (Eurofound 2015, 110).

Following litigation in the US about the employee status of platform workers, several platforms have changed their practices: TaskRabbit since 2015 sets a wage floor of a minimum of \$ 12.80/hour, which is higher than the minimum wage in any US state; other platforms (Instacart and Munchery) have given employee status to some of their platform workers (JRC 2016, 49).

Current European research, e.g. on ListMinut, finds that the number of hours intermediated on the platform are **insufficient to make it a substitute for conventional work** (De Groen/Maselli 2016, 8: even if workers are active on several platforms; De Groen 2016, 2/7, calls it a "market-place for one-night stands"), and that it is rather a source of complementary income. However, this finding might be premature as there is the possibility that in some cases, only the first connection is made via the platform and the future relationship is continued "offline" (De Groen 2016, 7). It also does not correspond to the findings in US research, which found that for at least 40% of workers crowdwork constituted their main income (Berg 2016, 16).

Mediation through IT in platform work has also **decreased on-demand workers' chance to get tips**. The recently upcoming food delivery services propose clients to pay for their delivery online. This takes away the only opportunity the pizza delivery guy on his scooter still had for a face-to-face conversation with customers, namely when the bill had to be paid in cash. This was the moment where delivery people could top up their salary through

tips. By conducting the whole order including payment of the bill online, bike couriers only hand over the food ordered and forego the chance for a tip as compared to earlier-times pizza delivery (Duquesne 2016). The same applies to Uber drivers, whose passengers are informed by Uber's FAQ as follows

"You don't need cash when you ride with Uber. Once you arrive at your destination, your fare is automatically charged to your credit card on file – there's no need to tip." (Aloisi 2016, 673).

UberEats, which is advertising food deliveries, advocates on the main page of its website:

"When you're ready to place your order, you'll see a total that includes the food and delivery price. There's no need to tip."

As an author puts it:

"In removing that moment of fumbling exchange, Uber removed the nudge passengers might receive to tip in a service job that is historically underwritten by a cultural practice of tipping (Hansen & Jespersen, 2013; Lynn, 2015). Drivers in the Uber system perform affective labor in exchange for ratings instead of tips." (Rosenblat 2015, 13).

In addition, food delivery platforms only provide uniforms and bags for carrying the food, but **couriers are required to use their own bikes, at their own risk**. If they have a flat tyre, it is their problem to get it fixed and they lose their income for the time they cannot be on the road.

Impact of trust-inducing mechanisms

European research shows that reputation is an important determinant in the allocation of a task to a certain candidate, as the following examples from different platforms show:

Profiles on ListMinut are constituted through one rating for richness of information provided by the worker to determine his "confidence score", and one based on feedback from users. The combined ratings determine the position of the workers on the website, with the best on top (De Groen/Maselli 2016, 10). Profiles with good ratings were typically awarded a disproportional amount of jobs. In addition, older workers had significantly higher earnings and more tasks than younger workers (De Groen 2016, 14/15).

- TaskRabbit "requires workers to accept at least 75% of the offers at times, location and types of jobs for which they indicated they would be available. Moreover, workers need to complete at least 85% of the accepted tasks offered and the workers should in at least 85% of the cases respond within 30 minutes when they receive an offer and not indicate not being able to respond. When a worker does not comply with one or more of these requirements, he or she will no longer be shown in the search results and thus de facto will not be able to obtain offers" (De Groen/Maselli 2016, 10).
- Uber drivers' accounts are deactivated if the driver receives too low ratings (under 4.6 of 5 stars in the last 25 or 50 trips, differs between regions), constituting a "new form of dismissal" (Aloisi 2016, 674). The problem is that many Uber drivers depend on passenger education about certain issues, such as the fact that it is illegal to accept unaccompanied minors; however, if Uber drivers reject transporting a minor, they risk receiving negative feedback, impacting on their rating (Rosenblat 2015, 5). "Passengers are empowered to act as middle managers over drivers, whose ratings directly impact their employment eligibility" (Rosenblat 2015, 11), while often being uneducated about the impact of giving only 4 of 5 stars to a driver (Rosenblat 2015, 12). Additionally, drivers cannot even have ratings removed if they have received them unfairly (Rosenblat 2015, 12).
- On Amazon Mechanical Turk, clients evaluations impacts on workers' virtual reputation, thus affecting the likelihood to be hired for future assignments (Aloisi 2016, 667): "A worker's history on Mechanical Turk primarily measures the percentage of work that has been approved – not the amount of assignments finished".

Some authors conclude (Drahokoupol 2016, 10):

"Overall, the ratings may on the one hand limit the possibility to participate in the collaborative economy and skew the earnings on platforms where the allocation of tasks is largely determined on the basis of scores

to a small group of workers; on the other hand, they also extend to the platforms a form of monitoring needed to deliver a good service."

Or, put differently (Aloisi 2016, 662):

"every worker's act [is]constantly traced, monitored and appraised under "the harsh light of customer satisfaction" as the supervisory power – a prerogative traditionally exclusive to the management – is partially delegated to users".

At the same time,

"platforms can create expectations about their service that workers must fulfill through the mediating power of the rating system" (Rosenblat 2015, 11; see also De Stefano 2016, 17),

which is in itself a measure of control of the online platform. This way, e.g. Uber

"can achieve an organization where the workforce behaves relatively homogenously without giving explicit directives – as with traditional employers (Girard and Stark, 2002; Bruder, 2015)." (Rosenblat 2015, 11; see also De Stefano 2016, 16).

Apart from the fact that ratings may have a disproportionate influence on workers' behaviour, Codagnone (2016, 22) demonstrates that ratings might not even be fully reliable, often with a bias toward positive reviews, and could thus not necessarily be a reliable measure of quality according to which workers are judged.

Impact of platform algorithms

Algorithm pricing

On-demand platforms of the last few years as Uber or food delivery services differ markedly from markets opened by Ebay or Airbnb, for example, which clearly display the supply of goods and leave the setting of prices to competing individuals (JRC 2016, 38). More recent on-demand platforms, instead, do not provide data about supply and demand but operate a pricing



algorithm which is opaque (JRC 2016, 38). These power asymmetries between the platform and the drivers (in case of Uber) could be said to establish managerial control through assignment algorithms (= work allocation in an employment relationship), surge price algorithms (= provision of information to employees) and semi-automated evaluation, combining drivers' acceptance rates and ratings from passengers (= managerial evaluation).

One pertinent example are food delivery services, which pay more on weekends, but the algorithm in their app is conceived in a way that the weekend premium is only paid if the worker works from Friday to Sunday and not only one weekend day (Duquesne 2016).

Uber exhorts its drivers to continue through affirmative messages: when they try to switch off the app, they receive the message

"Are you sure you want to go offline? Demand is very high in your area.

Make, more money, don't stop now!" (Rosenblat 2015, 10).

Uber also pays "surge prices" (double or triple the regular prices) **in cases of high demand to encourage drivers to get on the road** by increasing their earnings (De Groen/Maselli 2016, 10). However, it can happen that drivers travel to surge pricing zones to earn more money and discover upon arrival that supply had already gone up enough because many drivers travelled there, and thus the surge had already disappeared (Rosenblat 2015, 8), thereby belying the "implicit, technophilic promise of accuracy and fairness" (Rosenblat 2015, 8):

"The risk is transferred to the driver as to whether or not demand actually exists where and when Uber advises" (Rosenblat 2015, 10).

Uber even offers guaranteed gross fares to drivers fulfilling specific conditions: they need to accept at least 90% of the trips offered, need to complete one ride an hour and connect to the system for at least 50 min of every indicated rush-hour, which is communicated beforehand (De Groen/Maselli 2016, 10).

The combined effect of these algorithms is that **workers**, although in principle being flexible when they turn on the app, **are indirectly nudged to working at specific moments to earn more income**:

"When Uber sets low rates for routine work, incentive-based pay steers drivers into working under much stricter and less flexible conditions." (Rosenblat 2015, 9).

Thereby, Uber's algorithmically-mediated system could build new forms of surveillance and control (JRC 2016, 38).

In case of Uber, **the earnings are not always clear from the outset** (De Groen/Maselli 2016, 11). Uber drivers have to accept passengers without knowing their destination and thus the fare in advance, and accordingly are not able to reject unprofitable fares (JRC 2016, 39), which sometimes is the case when the Uber minimum fare not even covers all costs (Rosenblat 2015, 5). In case of rejection of certain passengers, Uber drivers risk being suspended (JRC 2016, 39). See Rosenblat 2015, 6:

"for Uber drivers, the results of monitoring, delivered weekly in the form of ratings and rankings, acts as a remote threat and a tangible nudge to drivers to be in compliance with workplace expectations".

In addition, Uber can unilaterally charge a fee between 20-30% from drivers. Drivers also have to bear the risk that a customer complains and Uber then reclaims the fare; proving that the complaint was unfounded is arduous and time-consuming for drivers, who have partly started to install dash-cams to produce a "counter-narrative" to the one the passenger submits to Uber (Rosenblat 2015, 4).

Information asymmetry

On several platforms, **clients have access to considerably more information on workers than** *vice versa*, e.g. being able to sort workers according to previous acceptance rates or top ratings (JRC 2016, 37). Often, the tasks to be performed are not well described (Eurofound 2015, 115) and it is very difficult and time-consuming for the worker to get into contact with the client to get further clarifications, which engenders the risk of wrong execution of tasks and the possible refusal of payment.

Regarding Uber, some authors claim that **the information asymmetries created by Uber's app design are a fundamental part of Uber's business model**, e.g. by comparing drivers' metrics and ranking them accordingly (Rosenblat 2015, 4). These "individualized metrics foster [...] a

"highly individualized sense of responsibility for one's own job stability" (Neff, p. 28), even though drivers have limited control over how passengers interact with the rating system or how Uber uses it." (Rosenblat 2015, 11).

Another asymmetry relates to **Uber's right to unilaterally control and change the base rate its drivers charge and the commission it takes from drivers**, thus retaining total control over their drivers' remuneration.

Impact on health and safety of workers

Platform workers are exposed to known risks (OSHA 2015, 2):

- of online work (in case of virtual services), notably stress, visual fatigue and musculoskeletal problems; other issues mentioned are technology addiction, information overload and cyber-bullying (Valenduc 2016, 36); and
- for some of the physical services, to possible attacks and harassment by clients (e.g. driving for Uber) or to potential household accidents (if working in clients' homes); and
- for **bike courier services**, workers are exposed to an **elevated accident risk in urban traffic**, given that they can make more money the quicker they deliver and accept the next order (Duquesne 2016).

Besides, platform working has **created psychosocial risks unknown to date**, and which are strongly interlinked with the set-up of the online matching platforms, including their "on demand" philosophy and their rating/reputation systems:

- precariousness of work, where it is sometimes unsure even from one hour to the next whether there will be work to do, what it will entail and how much it will pay; this insecurity of employment and income is associated with psychological morbidity (JRC 2016, 29; Maselli 2016, 5). De Stefano (2016, 4) calls this "workers provided "just-in-time" and compensated on a "pay-as-you-go" basis", as workers are only paid during the moments they actually work for the client. As the CEO of CrowdFlower, a crowdworking platform aptly puts it (De Stefano 2016, 4): "Before the Internet, it would be really difficult to find someone, sit them down for ten minutes and get them to work for you, and then fire them after those ten minutes. But with technology, you can actually find them, pay them the tiny amount of money, and then get rid of them when you don't need them anymore." (quoted by Marvit, 2014)".
- **impact of ratings from employers or clients**: a bad rating (e.g. lower than 4.7 of 5 stars differs between regions in case of Uber in the USA) entails deactivation of a worker's Uber account, or prevents the worker from obtaining well-paying jobs in the future; thus workers are continuously under stress to be friendly, efficient and serviceable at all moments, akin to a "constant monitoring system" (Aloisi 2016, 676).
- workers are required to work at very short notice only to find that if they arrive at the job site, the job might have gone to someone else already (Uber in surge areas). "The facility to use platforms combined with the availability of a large pool of workers makes the timing of this type of outsourcing extremely compressed. The consequence is that the system transfers the stress and pressure to the freelance workers on the other side of the screen." (Maselli 2016, 5).
- "mixing-up" of work and non-work activities, impacting on work-life balance in so far as it does neither allow the worker to concentrate on his work due to interruptions e.g. from children, nor can he

enjoy his spare time as he must always be on "stand-by" to accept any potential upcoming jobs (Huws 2016, 26). In that sense, measuring workload according to the hours worked is not appropriate any more, as the continuous "standby" of workers to catch the next online task posted also takes its toll (Degryse 2016, 41/44; Valenduc 2016, 37; The Hamilton Project 2015, 4).

- Platform work encourages a rapid pace of work without breaks: "Online crowd workers may be working to tight deadlines (more skilled freelance workers) or on low piece-rates for micro-tasks (lower-skilled clerical workers) while offline workers are under pressure to complete fixed-fee jobs and move on to the next" (OSHA 2015, 14).
- The cost of insurance and the risk of ensuring safety and health is externalised to the worker, creating, through the knowledge of not earning anything e.g. during times of sickness, a psychological burden of "not being allowed to fall ill" (Degryse 2016, 44).
- Platform workers often work isolated: they normally lack direct channels of communication with the ultimate client; they cannot exchange with colleagues and are required to work autonomously all the time, all of which increases psychosocial risk. See Valenduc 2016, 40: "Certain workers engaged in these new forms of work are left no opportunity for face-to-face or even shared activities, and this begs the question of how professional identities can be built and forms of collective organisation nurtured in such an unstructured environment."
- Continuous real-time evaluation of worker performance as studied e.g. on smart production lines as in Amazon warehouses, can become an important sources of stress. "It has also been observed that older workers (aged 45 and above) have a more tense relationship with new technologies that can contribute to a decrease in occupational wellbeing." (Degryse 2016, 45)

Occurrence of discrimination

Some posts offering tasks to fulfil on collaborative platforms **include clearly discriminating statements** (JRC 2016, 42; Berg 2016, 13):

"This job is not for people from Bangladesh and Pakistan and your bid would be rejected automatically if you are from any one of the mentioned countries;

Business to Business appointment setters needed: with previous calling experience Filipinos are preferred;

The client has requested they want a female caller with a British or Australian or New Zealand accent working on the campaign. MEANING UNLESS YOU ARE FEMALE AND UNLESS YOU ARE A KIWI, AN AUSSIE OR BRITISH, DO NOT APPLY!!!!."

Besides, **gender discrimination is also occurring**, as several studies have shown that, all parameters being equal, female workers are less likely to get hired for typically male jobs like programming, but more likely to get typically female jobs like customer service. In addition, even if women are hired for typically male jobs, employers make the



risk averse choice of paying them per hour instead of for the final result. They thus find that, while the platforms would normally enable an employer to make a rational hiring decision based on skills, merit and value for money, many employers due to information overload fall back on stereotypes and make potentially biased decisions. This causes distorted labour market decisions as these studies unequivocally show that women applying for typically "male" jobs possess on average more domain relevant skills than their male counterparts (JRC 2016, 46; De Stefano 2016, 11 for different forms of discrimination). Besides, changes generated by the digital economy are not "gender-neutral" (Valenduc 2016, 37/38):

"Thanks to virtual technology, **women can continue to multitask** – they opt in and opt out of work/family tasks, and by doing so, they can "do it all", without challenging conventional gender roles, without threatening their marriages or the belief that they are good mothers' (Rafnsdottir 2014)."

Finally, some trust facilitating mechanisms of online platforms, such as providing personal profiles with **pictures**, also facilitate discrimination based on workers' race, gender age or other aspects of appearance. In this sense, discrimination seems to be "an important unintended consequence of a seemingly routine mechanism for building trust" (Degryse 2016, 49).

On the other hand, **the data generated through the platform economy allows data analytics to detect systemic forms of discrimination** (e.g. a refusal of non-white passengers by an Uber driver), which would be harder to detect in a conventional taxi agency where this kind of data is not generated (Sundararajan 2016, 157).

Social security coverage

While employees are automatically insured under a social security regime, **platform work externalises this obligation to workers**.

A typical example of how this is set up are the food delivery services (UberEats, Deliveroo, TakeEatEasy, Foodora) which have replaced the pizza delivery guy with his scooter, working for the local pizzeria. Nowadays, bike couriers accept to deliver dishes ordered online, via an app installed on their smartphone. While clients pay 2-3€ on top of the regular price per dish, restaurant owners pay a commission of 20-30% of the dish price to the delivery platform, which then pays its "service providers" on bike. **Even if it is possible to make 3000-4000 € per month if working**

full-time for the platform, generally workers are not under any social security regime (see also Broughton 2016, 117). They are only paid for work done; there is no paid holiday, sick leave or unemployment benefits. From the money earned they would have to pay into private insurance products covering these risks, but as many of these bike couriers are in their twenties, few of them do it (Duquesne 2016).

In addition, when bike couriers have an accident, a frequent occurrence in urban traffic, they don't have any accident coverage. Additionally, in France, bike couriers have to have been contributing into the self-employed

regime for a year before the get daily allowances when unable to work, but only from the eighth day of inability to work.

Digital economy expert Ursula Huws purposely asks (Huws 2016, 27):

"What kinds of social protection systems are suitable for workers who do not know from one hour, day or week to the next when they will next be working, and for how long? How can the rights of self-employed workers be brought into line with those of employees?"

Tax implications

Regarding workers, tax implications mainly concern enforcement, as **platform workers are tax payers who have to declare their income and pay their taxes according to national rules** (2016 **Commission Staff Working document**, p. 41). Member States have taken different approaches to bring clarity to the applicable tax rules for users, ranging from providing guidance to automatic simplified tax declarations (2016 Commission Staff Working document, p. 42/43). Additionally, tax authorities in several Member States have agreements with online platforms to communicate yearly income of platform workers to the tax authorities like in France or having Airbnb collect tourist taxes like in Amsterdam (2016 Commission Staff Working document, p. 43).

The bigger challenge for tax authorities are **enterprises who mainly or exclusively operate on the web and have practically no employees at one physical location**; here it becomes more difficult to establish a link and thus allocate profits to a specific national jurisdiction (2016 **Commission Staff Working document**, p. 41). An author rightfully asks (Degryse 2016, 16):



"How will states adopt their tax policies to the digital economy? Will they still find ways of financing their social security systems? And how will they manage to regulate this completely trans-nationalised sector?"

later stating (p. 35):

"[The stakes] overflow to include the role – and the power – of states. In causing frontiers to 'disappear', this economy overrules all national regulatory frameworks and voids

taxation of its substance by using delocalised intermediaries".

Robertshaw (2015, 79) also sees the need for global policy formulation:

"Global policy formulations are required in the collaborative economy because it operates on a global scale, regardless of national or regional borders."

Implications for qualifications and professional responsibility

Given that usual procedures e.g. for obtaining a licence for exercising a particular profession do not apply, it is sometimes **unclear who is checking whether workers advertised as possessing specific skills actually possess them**:

OSHA 2015, 5 finds:

"However it is not always clear that they actually have the relevant qualifications or whose responsibility it is to check these credentials. This question has implications for professional responsibility, especially important in cases where there are regulations in place requiring that practitioners have the relevant certification (e.g.

medical services, electrical installation) or requirements for checks for past convictions (e.g. for theft, dangerous driving). Some platforms, but by no means all, state that all their workers are fully vetted (without necessarily explaining how). The absence of such checks can lead to situations where the safety and health of the worker concerned, and of clients and members of the public, can be put at risk."

Similarly an ETUI 2016 report (Degryse 2016, 48):

"Increasing numbers of workers who supply services on platforms such as Upwork, Uber, ATM, etc. are not required to submit proof of qualifications, or training completed, or any kind of experience at all. Most of the time what counts for the client is the rating of the service provider supplied by the most recent 'user', a state of affairs that, what is more, leads some service providers to develop an obsession with evaluation rather than with training."

As **to access to HR measures or to training, mentoring or coaching**, platform workers are considered as freelancers who do not get such benefits but have to organise their further professional development themselves (Eurofound 2015, 115)

Lack of representation

As freelancers, there is a lack of representation of crowd workers (Eurofound 2015, 115).

De Stefano (2016, 9) finds that especially the practical possibility for associating with their peers is reduced for workers on collaborative platforms, for several reasons:

- their dispersion on the internet;
- their unwillingness to cooperate given the huge competition between them;

• their reluctance to exercise collective rights as it could adversely impact on their reputation, or could lead to them being excluded from the platform (fear of retaliation), mirroring fears of temporary workers in the offline labour market.

Protection of privacy

The Eurofound 2015 report notes a possibility of privacy violation of crowd workers (p. 115), "as the workers often have to disclose personal information without a clear guarantee of confidentiality" (see also JRC 2016, 6).

A Commission 2016 report (JRC 2016, 39) reports that **some platforms** mediating virtual services like Upwork **measure their workers' productivity in terms of keystrokes**, or require workers to work in virtual office applications with regular screen shots and activity logs which ensure tight control (see also De Stefano 2016, 17).

The statistical void

There are **no official statistics on employment in the collaborative economy** and its direct and indirect effects, as the character of the collaborative economy engenders a high cost and burden to carry out surveys on households and SMEs and currently prevents the collection of reliable information (2016 Commission Staff Working document, p. 44).

Possible solutions might either involve platforms communicating official statistics to statistical bodies, which would, however, require stringent protection of confidential data (2016 **Commission Staff Working document**, p. 44).

Based on comparable statistics from the US, a rough estimation puts the number of workers in the collaborative economy in Europe at 100.000 (0.05% of total EU employees at the end of 2015), 65.000 of which are active through Uber (De Groen/Maselli 2016, 20). The **difficulty in gauging the number of collaborative workers in Europe** lies

in the fact that for one, collaborative platforms are privately held and do thus not have as stringent reporting requirements as publicly listed corporations. Secondly, given that workers are freelancers and not employees, platforms are not obliged to report numbers at all, adding to the fact that there is no standard definition of when someone is considered a "worker".

See also Aloisi 2016, 659:

"There is no clear distinction between active and inactive accounts (the definition lacks a quantitative specification) and a worker – in the absence of an exclusivity clause – could sign up in several platforms. It is worth nothing that we also lack data measuring the role of the gig-economy in fostering formalization of activities that would have otherwise occurred in the informal economy and, vice versa, its role in driving informalization and lack of protection in traditionally regulated sectors."

Proposed policy solutions and their pitfalls

The overall insight that something needs to be done to protect workers in the collaborative economy is aptly formulated by Sundararajan (2016, 160):

"New labor definitions are needed for a world of crowd-based capitalism."

This is also well described by the Judge in the Californian Lyft case:

"the jury in this case will be handed a square peg and asked to choose between two round holes" since the "test the California courts have developed over the 20th Century for classifying workers isn't very helpful in addressing this 21st Century problem"" (De Stefano 2016, 18).

Sundararajan relates this to the **old dichotomy of "employed" and "unemployed"** (2016, 175):

"In today's economy, being employed or unemployed is becoming increasingly difficult to measure as microentrepreneurship, multiple gigs, freelance work, and fluid self-employment muddle traditional definitions and measures".

He also questions the way measuring the job creation rates in the collaborative economy, using established employment measures (2016, 176):

"We [...] need to develop metrics that take into account job quality, income stability, and work-life balance".

He concludes:

"We need labor policy that anticipates this ongoing transition, moves past the false dichotomy of "employee" and "independent contractor" to redefine how we categorize productive work, decouples the

social safety net from full-time employment, and better supports our emerging networked society of microentrepreneurs".

Important conditions for any possible future regulation would be to firmly recognise jobs in the collaborative economy as "work" with a human character and to treat working conditions in the collaborative economy as one "symptom" of the increasing casualisation of the labour market in general (De Stefano 2016, 21/23).

Specific suggestions and their critique in the literature (in addition to the ideas mentioned **above**) are the following:

- **Minimum earning requirements** (e.g. minimum wage/hour): This would be difficult to implement and enforced given the status of collaborative workers as mostly self-employed, to whom collective agreements do not apply. In addition, most online platforms are located outside the EU, and apart from the question where to set the minimum earning requirement (according to which national minimum wage?), those platforms are hard to reach when the minimum wage is not respected (De Groen/Maselli 2016, 23).
- Information exchange with platforms to determine earnings of workers to improve tax declaration. Platforms could either issue workers with an overview of annual earnings for their tax declaration or automatically exchange information on earnings automatically. In case a workers and a client only establish the first relationship via the platform and then continue "offline", the payment through the platforms' account could help for following up direct payments between workers and clients: "since most of the payments are rooted through national payment systems and banks, they can also be tracked so that follow-up payments directly between the user and workers can be identified" (De Groen/Maselli 2016, 24).
- Address the special need for protection of platforms workers, e.g. against unfair deactivation of their platform account (Drahokoupil 2016, 5; De Stefano 2016, 22). In this respect, US workers in the collaborative economy have reached an intermediate victory against Uber, being provided with a grievance process which includes hearing an arbitrator before deactivating accounts.
- Extension of collective agreements to categories wider than "employees", including platform workers (Drahokoupil 2016, 5).
- Some authors propose to **create a third category, an intermediate status between self-employed and employee, e.g. the "dependent contractor" or "independent worker"** (Aloisi 2016, 685; Maselli 2016, 8), which should be afforded at least a part of the usual bundle of social security provisions (JRC 2016, 7/50). Sundararajan (2016, 179) rightfully observes that platform workers not necessarily aspire to working fulltime as an employee, but rather to obtain the benefits currently exclusively associated with that status.
- Such an intermediate status of "dependent contractor" would allow businesses to provide additional benefits to workers without running the risk of becoming an "employer" (The Hamilton Project 2015, 3). Critics argue that again, it would not be clear where to draw the boundaries between "real" self-employed, the "dependent contractors" or employees, but that the grey zone would be merely shifted somewhere else (JRC 2016, 50; Kennedy 2016, 10; De Stefano 2016, 19). Such a third category would also be likely to

deprive some workers which are currently protected as "employees" of their rights by sorting them into the new category (De Stefano 2016, 20). If such an intermediate category were to be created, it would have to be ensured that it does not apply to the collaborative economy only but also applies to the wider labour market with its increasing casualisation of work and "commoditising" of workers (De Stefano 2016, 21).

- Instead, a 2016 European Parliament study recommends including sharing economy providers in the scope of the general rules applicable to self-employment, and complementing this approach, to allow platforms to develop their own benefits policies that could compete with insurance options otherwise available to platform workers, e.g. by providing for a "default" opt-in position on automatic deductions from platform earnings for an insurance policy against sickness (Goudin 2016, 31/I-119).
- Similarly, Sundararajan (2016, 185) starts from the idea that collaborative workers are self-employed, but he suggests to remove the threat of courts or regulators finding an "employment relationship" when granting support to workers through the introduction of a "safe harbour" for sharing economy platforms, "which would allow them to give benefits, training, insurance, and other forms of protection to their independent contractor providers without triggering a categorization of theses providers as employees". This would give both platforms and workers, as well as regulators and courts the necessary time and space to see what kinds of protections and benefits naturally emerge from the sharing economy itself and where legislative intervention might be necessary.
- Another proposal is to review all the labour-market relevant legislation, sectoral and otherwise, to verify in how far it should be extended to cover platform workers: coverage of each labour law should be driven by its purpose and thus the relevant people to protect, independently of whether a workers is classified as an "employee" or not (Kennedy 2016, 11).
- Another possible solution to provide platform workers with social security rights is creating individual security accounts to protect workers as they move from one 'gig' to the other: "Benefits (wage insurance, health insurance, disability and injury insurance) should be designed universally and not tied to specific employers." (JRC 2016, 8; Aloisi 2016, 686; Maselli 2016, 8; France Stratégie 2016, 4; Sundararajan 2016, 187/188), and instead new tools be found to "deliver core labour rights" (Aloisi 2016, 686). An ILO 2016 study suggests that every worker would hold an account regardless of the number of businesses they work for or the nature of contractual arrangement. For each job, the client would have to pay a proportion of the earnings into this account, thus having the same obligation vis-à-vis its platform workers as with its
- employees (Berg 2016, 20). However, it is argued that this measure in itself is not sufficient in view of the too low earnings, the unstable flow of work, the privacy violations etc., which would only allow portability of blatantly insufficient benefit entitlements (Berg 2016, 20). Instead, these critics advocate a wider and more comprehensive regulatory approach (JRC 2016, 51).
- Upskilling of the workforce, especially regarding digital skills, alone might not suffice to keep people self-sufficient and out of poverty: "other solutions might prove indispensable, such as permanent income support, a strengthening of basic social services (health care, pensions, etc.) for persons definitively excluded from the labour market by machines and algorithms. 'A most fragile balance between the freedom of markets and the prosperity of workers must be sought and found' (Roubini 2015)" (Degryse 2016, 47). This is echoed by other authors, who wish to make career trajectories more secure in a world of discontinuity: "thought should be given to forms of payment other than earned income, such as negative income tax or an unconditional basic income" (Valenduc 2016, 43; also discussed by Sundararajan 2016, 189).
- Sundararajan (2016, 201) also refers to the threat that in the measure that collaborative platforms become a necessary conduit for finding work, it becomes increasingly important to be able to take one's data (ratings, reviews, pictures, income statements etc.) with you when switching platforms ("data portability")
- to avoid having to start from "zero" on each new platform. This would also reduce dependency of workers on specific platforms (De Stefano 2016, 22).

• Social partners play an important role for creating and supporting codes of conduct addressing labour protection in the collaborative economy: "the fundamental voice of workers must not be overlooked and self-regulation cannot be unilaterally set by businesses or aimed at satisfying only the "consumer" part of the stakeholders." (De Stefano 2016, 23).

To sum it up in the words of De Stefano (2016, 23):

"[T]he challenges the gig-economy poses to the world of work are enormous: simplistic and hastened responses aimed at deregulation and shrinking workers' protection must be avoided if opportunities stemming from the gig-economy and future technology-enabled developments in the economy are to be seized for everyone".

Robertshaw (2015, 86), however, **warns against a catch-up approach in policy making**, which applies not only to regulation of digital policies, but also of worker protection policies, as platform work is evolving so rapidly:

"Policy makers should not try to make policy for current digital technologies and capabilities. Digital technology evolves so fast that policy implementation may lag behind and, generally, harms the prospects of what follows. Instead, policy makers should look ahead and devise policy in a manner that regulations are in place as technology arrives. A catch up approach might be problematic when chasing increasingly short technology innovation cycles."

Further research needs

Currently, the main academic literature on the collaborative economy in the EU looks at the development or status quo of individual collaborative platforms, like comparing similar platforms or only evaluating one national platform. In this area, US research has gone much further, looking at the US labour market in its entirety and trends market-wide.

Further research is needed to better gauge the impact of the collaborative economy on the European labour market and on workers' situation. The Commission suggests to look more in-depth in the future at:

- the net impact of the collaborative economy on the wider economy (net impact on employment and structurally on the overall labour market);
- how regulation affects the creation and survival of platforms;
- the net impact of collaborative platforms on the environment, between sharing resources more widely than in the past but also creating environmental impact in other places.

When looking at workers' situation in particular, it would be useful to:

- do research on the employment status and history of those working in digital labour markets (JRC 2016, 6);
- conduct further in-depth research across different European and national platforms on working conditions based not only on platform-collected data but also interviews with platform workers; and
- comparing it with market-wide data generated through the Labour Force Survey.

Further, the long-term implications of the current situation should be looked into, namely how should our societies deal with the fact that

"a percentage of the cost of each transaction ends up in the coffers of a company which may be based on a different continent and is highly unlikely to be making any contribution to the cost of the worker's education, health, housing, childcare, pension or the infrastructure of the region where she or he lives?" (Huws 2016, 27)

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