

The End of the Subordinate Worker? The On-Demand Economy, the Gig Economy, and the Need for Protection for Crowdworkers

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The digital era has changed industrial relations dramatically, giving rise to considerable legal uncertainty about the rules that apply in cyberspace. Technology is transforming business organization in a way that makes the employee as a salaried worker less necessary. A new type of company in the 'on demand economy' or 'sharing economy' connecting customers directly with individual service providers is emerging. These companies base their core business entirely on workers classified as self-employed workers. In this connection, employment law is facing its greatest challenge, dealing with a very different reality compared to the one that existed when it came into being. However, workers still need protection, and this article examines the reasons for this claim.

1 THE EMPLOYEE OF THE FUTURE¹

Some years ago it would have been impossible to discuss capitalism without reference to the labour market. Much less conceivable would have been a criticism of capitalism that omitted the position of workers in the system. Now it seems that times have changed. The study by Thomas Picketty, 'Capital in the Twenty-First Century', offers an analysis and critique of capitalism without referring to the labour market. Perhaps the 'exploitation' of workers has finished and it is no longer necessary to discuss it? Or maybe the new capitalism is no longer based on the 'exploitation' of workers?

It seems that 'exploitation' still exists but in ways that are changing. The nineteenth century industrial relations model was different from the twentieth century model, that will undergo further change in the future if current trends continue. At the beginning of the twenty-first century, with the transformation of the economy, new organizational methods also appeared. These methods require

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different tools from the ones currently in place to protect individuals who make a living from their work.

1.1 THE MIGRATION TO CYBERSPACE

In the last twenty years, labour law experts have been concerned about how new information and communications technologies affect employment. Numerous research papers have been published about worker privacy (computer monitoring, CCTV, GPS, social networks),² increased workloads after working hours as a result of teleworking, email,³ and so on. All these concerns arise from the increase in the employer's powers over the worker. However, it seems that new technologies are now hitting employees in another way: by causing their disappearance.

Since the times of Ned Ludd, workers have been aware of the possibility of being replaced by technology. For this reason, this question does not seem new, nor does it seem worth talking about in research which aims to study the challenges of the twenty-first century. However, the way that technology could be 'finishing off' employees is not taking place as initially predicted.

New technologies make possible a reduction in transaction costs that was unthinkable just a few years ago. Transaction costs are the main reason why firms exist. In particular, firms prefer to do the job themselves rather than outsource it because of transaction costs.⁴ In the past, firms were aware that outsourcing work was expensive. Information used to travel slowly and the monitoring of the quality of the work done could result in a loss in productivity. Thus, firms preferred to have in-house people – employees – do the work. These included employees trained by the company to ensure the quality of the product or the service offered by the company, employees who had passed a hiring process (interviews, recruitment process), employees under surveillance during working hours (middle-manager monitoring), and a disciplinary system (dismissals). However, this system is transformed when new technologies reduce transaction costs to almost zero.

At present, many firms appear to have no incentive to have large organizational structures. Outsourcing is increasing, leading to the growth of organizational networks of small firms. With the reduction of transaction costs, the specialization

² C. San Martín Mazzuconi, *Navegar por Internet en horas de trabajo ¿Quién? ¿Yo?*, 19(2) AS 41–48 (2010).

³ A. Baylos Grau, *Teletrabajo y legislación social*, in *Trabajar en la sociedad de información: el teletrabajo: problema o solución: cómo contratarlo* (Rafael Casado Ortiz coord., San Sebastián de los Reyes: Fundación Universidad Empresa 1999), J. Thibault Aranda, *Aspectos jurídicos del teletrabajo*, 11 *Revista del Ministerio de Trabajo e Inmigración* 93–108 (1998) and J. Thibault Aranda, *Teletrabajo forzado a domicilio*, 4 AL 386–396 (2006).

⁴ R. H. Coase, *The Nature of the Firm*, 16(4) *Economica*, New Series 386–405 (1937).

of the company becomes the main objective. The important thing for firms is no longer to be able to offer multiple services by achieving synergies with each other, but to specialize in an industry or product, while outsourcing the rest.

However, as technologies improve and transaction costs are further reduced, it is becoming apparent, in some industries, that decentralization is not enough. Some firms do not hire workers (except technological workers), but source all their services from independent contractors. These firms claim that their business is to match clients with service providers, although these providers will not be companies but independent contractors. Outsourcing is carried to the extreme, resulting in the fragmentation of the labour market.⁵

Hence, even without technology replacing workers, it has been claimed that the role of the employee (salaried worker) that first appeared at the dawn of the industrial revolution could be coming to an end.⁶

Howe was one of the first to identify this new business model,⁷ describing how the picture supply industry collapsed because of the emergence of iStockphoto and other stock photo sites. The traditional picture suppliers hired professional photographers to meet the customers' needs. On the other hand, iStockphoto does not hire photographers, but has a large pool of photographers ready to do any job. These photographers registered with iStockphoto compete with other workers registered on the website, pushing down rates. Thus, in 2009, the company iStockphoto became the third largest photo supplier in the world without hiring a single photographer.

These virtual platforms create a market for the matching of supply and demand, facilitating the interaction between those who provide services with those who need them. Moreover, these platforms take advantage of the less protective regulation of independent contractors and a freedom to set prices that does not exist in the field of labour protection (considering the minimum wage). A traditional company cannot compete with a company that sources all its services from independent contractors, as a traditional company has to pay the minimum wage. In this sense, in a free market economy, without public intervention, the traditional organizational model appears to be doomed to disappear.⁸ These online

⁵ As Prof. Valdés Dal-Ré says, not all companies are in crisis. Big businesses with a vertical organization and hierarchical integration are in some cases being dismantled, but businesses as the centre of the concentration of capital will be strengthened. For more information see Valdés Dal-Re, *Descentralización productiva y desorganización del derecho del trabajo* 168–169, 61 (Sistema: Revista de Ciencias Sociales 2002). These strengthened companies will be the ones that control the virtual platforms and business know-how.

⁶ See M. Cefkin et al., *A Perfect Storm? Reimagining Work in the Era of the End of the Job*, *Ethnographic Praxis in Industry Conference Proceedings* 3–19 (2014) and A. Hines, *The End of Work as We Know It*, *Career Plan. & Adult Dev. J.* 10 (Summer 2015).

⁷ J. Howe, *The Rise of Crowdsourcing*, *Wired* 176–179 (June 2006).

⁸ Low barriers to entry and low entry costs of new businesses ensure their rapid expansion. See A. Franzetti, *Risks of the Sharing Economy*, *Risk Mgmt.* 10–11 (Apr. 2015).

platforms have profound social implications, since they challenge traditional business models and undermine the structure of jobs.⁹

The aim of this article is to argue that crowdworkers face the same vulnerabilities as traditional workers. Accordingly, by applying a purposive interpretation of the employment contract – instead of the traditional right-to-control test – the article will defend the idea that they need labour law protection. The next part outlines the new business model and tries to explain how these firms get the job done without controlling (in the traditional sense of the word) the worker. The third part explains how, despite the fact that the business model has changed, crowdworkers face the same vulnerabilities as the traditional, more controlled, workers and how that justifies the application of labour law to them. The fourth part deals with the need to apply a purposive interpretation of the employment contract to protect crowdworkers. The article ends with some conclusions.

2 THE NEW BUSINESS MODEL: THE ‘ON-DEMAND ECONOMY’

2.1 TYPOLOGICAL DIFFERENTIATION AND TERMINOLOGICAL CONFUSION

What has been described so far has been called the ‘on-demand economy’.¹⁰ This term refers to a business model with internet platforms to ensure that large pools of workers are ready to meet the customer’s needs. As we can see, the on-demand economy is defined as exactly the opposite of the traditional concept of permanent employees committed to a particular company.¹¹

However, this term is open to criticism, since even before online platforms the service industry was already ‘on-demand’. In the traditional economy, no service is provided prior to the customer requesting it. In this sense, the ‘on-demand economy’ is not an adequate term to distinguish between old and new business models. If we intend to highlight the fact that in the new economy the worker is hired only when someone orders a product or service and dismissed (or rather, stops getting paid) immediately afterwards, maybe it should be called ‘on-demand work’, but not the ‘on-demand economy’. However, in the literature this term appears to be gaining currency though some authors adopt the term ‘peer-to-peer economy’. This

⁹ A. Aloisi, *Commoditized Workers. The Rising of On-Demand Work, a Case Study Research on a Set of Online Platforms and Apps*, 37(3) *Comp. Lab. L. & Pol’y J.* 663–690 (2015).

¹⁰ The term started to be used in the article *Workers on Tap*, *Economist* (3 Jan. 2015), and has subsequently been popularized by other authors like E. Dagnino, *Uber law: perspectiva jurídico-laboral de la sharing / on-demand economy*, 3 *Revista Internacional y Comparada de Relaciones Laborales y Derecho del Empleo* 1–31 (2015) and Franzetti, *supra* n. 8, at 10.

¹¹ A. Felstiner, *Working the Crowd: Employment and Labor Law in the Crowdsourcing Industry*, 32(1) *Berkeley J. Emp. & Lab. L.* 143–204 (2011).

denomination focuses on the disappearance of the company and its substitution by the idea of the consumer going directly to the worker. It also suggests that there are equal conditions between clients and workers. However, this term can be misleading because it implies that there is an equivalent position between the person who does the job and the person who pays for it. But, as is well known in the labour market, the worker is usually in a weaker position because of the urgent nature of the work.¹² For these reasons it may be argued that ‘service providers through an online platform’ would be a more effective and neutral term to refer to this new business model.¹³

Moreover, the ‘on-demand economy’ is an umbrella-term that covers a range of different businesses (although they share the idea of using an online platform to match supply and demand). Technology can be used in many ways and its sociological, economic and legal consequences for the labour market are different. According to the characteristics, at least three business models can be identified: (1) the sharing economy, (2) online crowdsourcing, and (3) offline crowdsourcing.

2.2 THE SHARING ECONOMY

The sharing economy requires companies to work through an online platform. Such companies exploit underused goods (a room, a car, a kitchen and meeting rooms, among others). The owners (micro-entrepreneurs) put their goods on the market through the online platform, thus increasing competition and providing the users with more options. Sharing economy companies offer owners the opportunity to share their goods with potential users through online platforms. The difference between the sharing economy and other types of companies in the on-demand economy is that the focus is on the goods shared. The services provided by the owner are a secondary issue.¹⁴

For example, AirBnB is a US company operating worldwide that claims to be the largest temporary accommodation provider in the world,¹⁵ although it does

¹² Work that is not sold today cannot be sold tomorrow, whereas money has durability and could even increase over time. This results in a weakness inherent in any provision of services. But then there are other characteristics specific to the working class that weaken workers, such as the economic imbalance between employers and workers. See Aloisi, *supra* n. 9, at 9.

¹³ It is not surprising that CEOs of companies are those who are most committed to calling their business model ‘peer-to-peer’. See the interview with the Zipcar CEO in Rafter, 2015.

¹⁴ Some authors use the concept ‘sharing economy’ for any kind of business without taking into account their specificities. See A. Sundararajan, *The Sharing Economy. The End of Employment and the Rise of Crowd-Based Capitalism*, MIT Press (2016).

¹⁵ See Tecnohotel News, *Airbnb, proveedor oficial de servicios de alojamiento alternativo en los Juegos Olímpicos de Río 2016*, <http://www.tecnohotelnews.com/2015/03/airbnb-proveedor-oficial-de-servicios-de-alojamiento-alternativo-en-los-juegos-olimpicos-de-rio-2016/> (accessed 25 Nov. 2016).

not own any accommodation of its own. AirBnB relies on its users to offer their homes (or just a room) to its clients. In the same sense, BlaBlaCar shares empty seats on trips that the owner of the car is intending to make in any case. As we can see, the service provided is secondary while what is relevant is the goods shared. For this reason, this business model has been called the 'renting economy'.¹⁶ In these cases, obviously, there is some work to be done, such as driving the vehicle by the car owner, or preparing the accommodation for the guests. However, these activities are completely secondary in comparison to the rental of the goods.¹⁷ As a result, this kind of business lies outside the scope of labour law.¹⁸

2.3 CROWDSOURCING

Crowdsourcing consists in taking a job, traditionally performed by an employee, and outsourcing it to an undefined, generally large, group of individuals in the form of an open call.¹⁹ The model tends to follow a tripartite structure: (1) first, there are the 'requesters', the companies or individuals that require a task; (2) second, there are the 'workers', those who perform the task; and (3) third, there is the provider of the online platform, which develops the 'platform' on which requesters can post their tasks, and workers accept, perform and submit the work.²⁰ This business model can be used for almost any kind of service, specialized or not. Some examples can be: transportation, delivery, laundry, personal training, furniture assembly, graphic design, photography, tuition, guided tours, translations and cooking.

Almost any job can be transformed under the new model, but not every task has the same characteristics or gives rise to the same risks. In this sense, there are

¹⁶ A. Ravenelle, *Microentrepreneur or Precariat? Exploring the Sharing Economy Through the Experiences of Workers for Airbnb, Taskrabbit, Uber and Kitchensurfing*, First International Workshop in Sharing Economy (4–5 June 2015), Copernicus Institute of Sustainable Development, Utrecht University, Netherlands (2015).

¹⁷ In the case of BlaBlaCar, the vehicle owner will also make the trip with or without rental seats. For this reason, we are not dealing with a transport service where the customer chooses the destination and the driver provides the service, but the utilization of spare seats for a trip that would take place in any case.

¹⁸ The sharing economy, understood as the business model based primarily on the provision of goods by their owner whose provision of services is incidental or residual, does not seem to need labour protection. In fact, in the case of the rental of housing, the protective rules, historically, have been designed to protect the tenant. It is understood that the owner of the property to be rented is in a position of power that does not require safeguards. As a result, an initial observation consists in distinguishing between when we are faced with a true sharing business, where goods are the main element of the transaction, and when an exchange revolves around the delivery of a service. In the first case, labour laws would not apply, nor does it seem necessary for them to do so, since there is no imbalance of power.

¹⁹ See Howe, *supra* n. 7.

²⁰ See Felstiner, *supra* n. 11, at 148.

two groups. On the one hand, there are tasks that can be performed entirely online and, on the other hand, those that require physical performance. This differentiation is meaningful, since online tasks carry fewer risks and lower external costs for the workers. For example, graphic design can be performed anywhere in the world by anyone with the knowledge and skills and equipped with a computer. In contrast, taking pictures requires the physical movement of the worker to the place the client wants to photograph. This movement involves risks and costs (accidents, traffic fines, and so on) that the online tasks do not have.

Another important difference, still within crowdsourcing, is between those activities that can be offered globally and those that require local execution. In the event that the offer is global, that is, the provision of services is not designed to be performed anywhere in particular, workers in all parts of the world would be able to perform the task. In these cases, the labour laws of all the countries in the world are competing against each other, since workers from more protective countries will automatically be excluded from the 'auction' to get the job. With these platforms, workers around the world can compete for these virtual jobs, in a kind of tender, where only workers who are willing to perform work at a lower price will be hired. Thus, the compulsory rights of workers granted by national laws are an impediment to entering the global labour market. This should change the focus of the social demands towards a global scale: as long as a country with lower protection and a lower minimum wage exists, this is likely to push down the rights of all the other countries.²¹

For jobs that need to be executed in a certain place, competition tends to be weaker. Workers will compete on equal conditions (equal labour rights) with other potential workers.

Finally, from the point of view of the companies that run the virtual platform that matches supply and demand, we need to distinguish between two types, namely, generic platforms and specific ones. The first group includes platforms such as Amazon Turk, Microtask, Clickwork, TaskRabbit or Field Agent. In this group, the clients can request any kind of task. In the second group, there are specific platforms which only offer a particular service such as Uber for transport, Sandemans for guided tours, FlyCleaners for laundry, Myfixpert for electronic repairs, Chefly for cooks at home, Helping for housekeeping, Sharing academy for home tuition, and Entrenar.me for personal training.

The difference is important since the specific platforms exercise greater control over workers. Just like a traditional company, a platform dedicated to transport services seeks to maintain the value of the brand. In order to achieve this, the

²¹ This idea developed with the advance of globalization. See H. Arthurs, *Reinventing Labor Law for the Global Economy: The Benjamin Aaron Lecture*, 22(2) Berkeley J. Emp. & Lab. L. 271 (2001).

platform needs to ensure that the workers provide a good service. In contrast, generic online platforms act more like a bulletin board where services can be advertized and where the platform's reputation is not linked to any particular service or activity. This makes generic platforms less likely to exercise control over how workers perform their tasks, that is, there is less subordination. Generic online platforms seem to act more like employment agencies providing labour to a third party.²²

2.3[a] *Online Crowdsourcing*

As noted above, the main feature of online crowdsourcing is that all the work can be performed virtually without any physical work by the service provider. Crowdworking does not take place in a single physical workplace. It is arranged and paid for entirely online, often anonymously, and regulated by compulsory 'click wrap' or participation agreements.²³

The typical payment system consists of piecework regardless of the time required to complete the task. However, workers are not always paid for their services. Voluntary crowdsourcing is becoming widespread. Wikipedia has revolutionized the encyclopaedia publishing industry without a single paid worker behind the project. The preparation of encyclopaedia articles for Wikipedia is done by volunteers who contribute to its creation without pay.²⁴

'Contest crowdsourcing' is where the requester offers payment only to the first person to complete the task successfully. So far, contest-based crowdsourcing has been used to solve complex mathematical equations and algorithms. Instead of hiring a team of experts to solve the question, companies upload the problem onto the online platform in the form of an open call. Only the first person to come up with the solution to the question is paid. Before online platforms existed, these

²² Despite appearances, the reality is not so clear, since both the lack of integration into the platform's business and the lack of managerial prerogative and control by the platform can be challenged. See J. Prassl & M. Risak, *Uber, Taskrabbit, and CO.: Platforms as Employers? Rethinking the Legal Analysis of Crowdwork*, 37(3) *Comp. Lab. L. & Pol'y J.* 619–652 (2016).

²³ See Felstiner, *supra* n. 11, at 146.

²⁴ Voluntary crowdsourcing has played an important role in engaging participants in questions of general interest concerning the government, public interest groups and charitable organizations. E.g. NASA launched a project based on online volunteers with the aim of identifying topographical structures on Mars through photos. The task was completed in record time due to the number of participants who volunteered their time. See S. Michael, *Clickworkers on Mars*, *Am. Scientist* 226 (May–June 2002). Moreover, many employees donated their time online to check the images taken by rescue planes in the search for a missing aviator in the Nevada desert. See S. Fosset, *The Search for Steve Fossett: Turk and Rescue*, *Economist* 97 (22 Sept. 2007). As always, the ethical issues are in the use and not the existence of technology: Blue Servo created in 2008 by the Sheriff of the Texas border established a network of cameras on the border with Mexico requesting the help of online volunteers to look out for any suspicious entry: it can be seen at blueservo.net.

kinds of work would not been feasible because it was impossible to reach such large numbers of interested people, and the costs of transmitting the open call were too high. Today, with the availability of such platforms, it is easy to reach experts around the world, thus contacting enough people interested in solving the problem for the prize.²⁵

With reference once again to paid crowdsourcing, in this model, unlike traditional employment involving a one-to-many relationship between employer and employees, crowdworking is characterized by many-to-many connections, some lasting as little as a minute or two.²⁶

This method of organizing production can be applied to any sector. By means of technology complex tasks can be divided into simpler tasks. In this way, after a process of division, the worker will find a short, simple, repetitive task. With the use of technology, processes can be simplified so that an unskilled worker can attempt tasks that usually require well-trained workers. One example is the company SpinWrite (spinwrite.com). This company creates duplicates of papers, including scientific papers. To achieve this, the company breaks the article down into sentences and gives it to workers through virtual platforms to amend only that sentence. Later, the article is reassembled in a new form. Modifying the whole text, without changing the meaning, would be a job for an expert linguist, specifically hired for this task, but changing one sentence is a simpler task that anyone can attempt to perform. In this case, the skilled worker would be, in the best of cases, a work supervisor.²⁷ This would be a kind of twenty-first century Taylorism (or neo-Taylorism).

The 'scientific management' promoted by Frederick Taylor (1911) was based on splitting production into small tasks assigned to different employees. With this method, supervisors are required to monitor the entire process, ensuring the quality of the work and compliance with the deadlines and schedules. In this context the skilled worker is the supervisor. We can find similarities between 'scientific management' and the work on virtual platforms. By means of new technology, the division of labour leads to a kind of virtual assembly line, where tasks are divided up for the purposes of simplification. Furthermore, in neo-Taylorism working time is irrelevant since it is paid at piece rates, not by the hour, since schedules are irrelevant for the employer. In the same sense, as it is paid at piece rates, the way the work is done is of no concern to the employer (requiring less supervision).²⁸ Employers do not control the productive process (how the work is done), but the outcome of the work (ex-post supervision),

²⁵ It is also called competitive crowdsourcing. E.g. [Innocentive.com](http://innocentive.com)

²⁶ See Prassl & Risak, *supra* n. 22, at 630 and Felstiner, *supra* n. 11, at 146.

²⁷ M. Marvit, *How Crowdworkers Became the Ghosts in the Digital Machine* (2014), <https://www.thenation.com/article/how-crowdworkers-became-ghosts-digital-machine> (accessed 25 Sept. 2016).

together with an ex-ante supervision in the sense that employers will not hire workers who do not have good online ratings and reviews.²⁹

This form of work organization is used by companies such as Elance (elance.com). Elance offers all kinds of professional services such as administration, design, engineering, copywriting and web design without hiring in-house employees. The company has a large pool of workers willing to do the work who sign up on the platform. LiveOps is another company using a networked crowd of communication workers to create virtual call centres for tech support and direct marketing. Liveops provides telemarketers for companies that need them. The worker is remunerated by the number of calls made. This should mean that the worker is free to choose how many calls she makes and when. Given the large number of workers offered through this platform, companies do not risk running out of telemarketers, so they do not need to hire full-time or to have any kind of assurance that telemarketers will work a minimum number of hours. In addition, telemarketers can work for several companies at once without a lasting relationship with any of the companies. In this regard, crowdsourcing resembles domestic subcontracting, temporary staffing and business product outsourcing. However, unlike passive middlemen in a supply chain, all crowdsourcing vendors exercise some form of control over the creation and continuance of work relationships, and earn revenue from the volume of business conducted on their platforms. As a result, an employer does not need to hire managers to supervise workers and can avoid turnover and recruitment expenses. Employers do not require human resource planning, nor do they pay for unproductive time.³⁰ There is no need for lay-offs in the case of a drop in demand, or to pay workers who are working 'on call'. In the end, flexibility is achieved in an extreme form.

2.3 [b] *Amazon Mechanical Turk*

Amazon Mechanical Turk may be seen as a model of the generic crowdsourcing online platform. MTurk was created in 2005 with the aim of getting online

²⁸ In traditional work, paid at piece rates, the consequences were the same. See M. Finkin, *Beclouded work, Beclouded Workers in Historical Perspective*, 37(3) *Comp. Lab. L. & Pol'y J.* (2016).

²⁹ This could mean a threat to the 'knowledge economy'. Some authors argue that work on the assembly line is coming to an end. They explain that the new economy tends to value highly skilled, smart and competent workers. See K. Stone, *From Widgets to Digits Employment. Regulation for the Changing Workplace* 5 (Cambridge University Press 2004). However, the fragmentation of the labour market can revert or reduce this tendency. In the future unskilled workers may work on these virtual assembly lines, with skilled workers needed only occasionally as supervisors. See M. Cherry, *Working for (Virtually) Minimum Wage: Applying the Fair Labor Standards Act in Cyberspace*, 60(5) *Ala. L. Rev.* 1095 (2009).

³⁰ See Felstiner, *supra* n. 11, at 152.

workers to do simple tasks which computers were still unable to perform.³¹ Currently, there are more than half a million ‘Turkers’ (as MTurk workers have been called) around the world.³² The system operates as follows. Through the MTurk platform, the customers (or requesters) specify a task and determine the fee. They may specify conditions for acceptance, so that a worker who does not meet these conditions is not able to take the job. The remuneration offered per task is non-negotiable. In addition, Amazon, the owner of the platform, allows requesters to refuse a task, once completed and submitted, without any obligation to pay the worker or to give the task back. Requesters do not have to justify the rejection. Requesters give a rating to the workers and this information is made public for other requesters.³³ However, the platform does not allow workers to give a rating to requesters. Finally, Amazon maintains the right to close a worker’s account, meaning that the worker is not able to work through the platform again.³⁴

All of these conditions, including workers being considered independent contractors (micro-entrepreneurs) and not employees of Amazon or any company for which they work, must be accepted by workers before they can be registered on the virtual platform. In the terms and conditions, Amazon also forbids the worker to perform her task using ‘robots, scripts or any other automated device’. It also prohibits the contracting parties from reaching agreements outside the Amazon platform, thereby limiting their contractual freedom.³⁵ The minimum price that Amazon allows as payment per job is 1 cent³⁶ and the requester has thirty days to evaluate and pay for the task.

³¹ This is the idea that lies behind the name of the platform. Mechanical Turk is the name of an eighteenth century wooden ‘robot’ with humanoid form, adorned with a turban, that was able to play chess. It was said to be the first ‘robot’ in history. However, it turned out that inside the wooden humanoid was a person of small stature, who in actual fact ran the ‘robot’. This analogy may seem a curiosity, but reflects a far more worrying philosophy: workers carry out functions that are completely dehumanized by means of a computer. They perform totally repetitive, monotonous tasks that are far from the final product, without, in many cases, any knowledge of what they are really working on. See Marvit, *supra* n. 27. In particular, MTurk has raised some criticism regarding the ethical implications. Workers, without knowledge, could be working for the benefit of dictators who use this work to oppress their people. E.g. it could be used to identify protesters in photographs taken at demonstrations. This could be done without telling the worker making the comparison between photos. See J. Zittrain, *Work the New Digital Sweatshops*, Newsweek 41 (9 Dec. 2009).

³² There are many other platforms similar to Amazon Mturk, such as CrowdFlower, Clickworker, CloudCrowd, so the number of workers in the industry remains unknown. See Marvit, *supra* n. 27.

³³ A. Kittur et al., *The Future of Crowd Work*, 16th ACM Conference on Computer Supported Cooperative Work, CSCW 2013, 1303 (2012).

³⁴ See Aloisi, *supra* n. 9, at 11.

³⁵ G. Davidov, *Who Is a Worker?*, 34(1) ILJ 57–71 (2005).

³⁶ It is also possible for the requester to pay in money that can only be spent on Amazon or on specific video games. This has been criticized in the literature because it is claimed that the aim is to attract child labour. See Marvit, *supra* n. 27.

Amazon takes 10% of the fee and states that it will not mediate in any disputes between the parties.³⁷

As can be seen, even online and generic crowdsourcing platforms exert some control over workers. In this case, it is the requester who controls the service provision, having the power to establish requirements for acceptance, check the worker's online ratings, give instructions on how the work is to be performed, and finally to control the work done. However, the platform also gives some instructions and establishes some requirements. The requester acts as an unregulated temporary employment agency³⁸ circumventing the safeguards for the weaker party in the relationship.

In fact, the platform conditions give rise to an evident imbalance between the requester and the worker. Obviously, the platform wants to attract requesters, who are the ones paying for the service. Thus, in the absence of any legislation that prevents it, the platform is designed entirely to appeal to requesters. The clearest example comes from the existence of the 'satisfaction clause' stating that a requester will not be required to pay for a service if it is not considered satisfactory, and nor is there any need to state the reasons for doing so. Furthermore, the requester will not be obliged to return the piece of work that is rated as unsatisfactory. In short, this imbalance, added to the fact that there appears to be no applicable regulation, means that the average earnings of an MTurk worker are just USD 1.25 per hour of work.³⁹

2.4 OFFLINE CROWDWORKING

Crowdsourcing that requires local and physical performance shares many of the above features. Once again, crowdworking is based on the existence of a virtual platform allowing customers to connect with a large pool of workers. However, since offline crowdsourcing requires physical implementation of the work, it is necessary for the person to be in the right place at the right time. On the one hand, this should mean less competition among workers to be awarded the job (thus increasing wages) and, on the other hand, it should allow application of national labour regulations. The labour law of the country in which the service is performed cannot be circumvented since all workers in that country are subject to the same legislation.⁴⁰ However, the physical execution of the work gives rise to

³⁷ See Felstiner, *supra* n. 11.

³⁸ See *Ibid.*, at 145.

³⁹ *Ibid.*, at 167.

⁴⁰ Most of the problems arise because we have rules based on national territories that regulate global markets.

costs for the worker, such as travel expenses, or the risk of accident or injury, that do not exist in the case of online crowdsourcing.

2.4[a] *Uber*

The most famous company of the offline crowdworking type is Uber, that operates via a virtual platform providing city transport.⁴¹ Any user can download the app for free, enabling them to find the closest driver by means of GPS, and then book a ride. Uber does not formally hire drivers or own any cars: on the contrary, Uber expects its collaborating drivers to do the job and provide their own vehicle. These drivers have to submit an application to Uber and pass a test in order to be authorized to work on the platform. This authorization process includes a request to submit their driver's licence, car registration number and car insurance. Sometimes, depending on the city, drivers can be examined on their geographical knowledge of the city and interviewed by an Uber employee. The vehicle owned by the driver has to be less than ten years old. The price of the service cannot be negotiated by the parties, but is established by Uber. Tips are forbidden and Uber takes between 10% and 20% (or even 30% in some cases)⁴² of the fare. Users can evaluate drivers and the ratings are made public for other customers to see.⁴³ If the ratings are too low, Uber can prevent a driver from accessing the platform through deactivation. Uber can also disable a driver's access to the platform for other reasons, e.g. for criticizing the company on social media.

Drivers are free to choose when to work and for how long. They can also refuse bookings, but if a task is accepted it has to be completed.⁴⁴ Moreover, the Uber 'drivers' manual' states that drivers are expected to accept all the bookings offered. Uber will investigate – with the possibility of deactivation – if too many rides are rejected. The manual invites drivers to wear professional-looking clothes. It suggests that the radio should be switched off or, if left on, jazz music should be played. The manual also recommends opening the car door for users' convenience

⁴¹ The Generic type refers to platforms offering can find any kind of service, e.g. TaskRabbit.com or Gigwalk.com, including delivery, assembling furniture, housework, warehouse auditing and 'phantom customers' among others.

⁴² See E. Huet, *Uber Raises UberX Commission to 25 Percent in Five More Markets*, Forbes (2015).

⁴³ A. Asher-Schapiro, *Against Sharing*, Jacobin, <https://www.jacobinmag.com/2014/09/against-sharing/> (accessed 1 Oct. 2015).

⁴⁴ See Uber Terms and Conditions, www.uber.com/legal/usa/terms (accessed 4 Sept. 2016).

and keeping an umbrella in the car,⁴⁵ so that, in case of rain, the customers do not get wet when getting into or out of the vehicle.⁴⁶

The driver has to cover all the expenses (petrol, insurance, taxes) arising from the use of the car, as well as assuming all responsibility should an accident occur., though Uber offers insurance to all its drivers for what is said to be less than the market rate.

3 CROWDWORKER AND EMPLOYEE VULNERABILITIES. DO THEY REFLECT DIFFERENT SITUATIONS?

3.1 SUBORDINATION AS AN ESSENTIAL ELEMENT FOR PROTECTION

For the purposes of this study, one of the most significant factors of the business model described appears to be the lack of dependence, or subordination, of the worker. In all cases, crowdworkers appear to be able to choose when to drive (work schedule), and for how long (working hours), and they seem to have considerable freedom in the way the work is executed. Thus, these businesses tend not control the execution of work (as much as in the past) but still evaluate the results. This development is not a minor matter. Worldwide, the main characteristic that leads to labour law protection is the existence of a subordinate relationship.⁴⁷ The current model of employee protection revolves around the existence of subordinate work as the main characteristic of the employment contract.⁴⁸ Today, in examining the employment contract in order to find out whether a worker is an employee or an independent contractor, the courts rely, by default, on the ‘right-to-control test’.⁴⁹ The ‘right-to-control’ test is a common

⁴⁵ B. Rogers, *Employment as a Legal Concept*, Legal Studies Research Papers Series (Temple University 2015).

⁴⁶ *O'Connor v. Uber Technologies, Inc.*, No C-13-3826 EMC, 2015.

⁴⁷ Some countries put more emphasis on ‘control’, while others refer to ‘integration’ and yet others to ‘subordination’, but despite such variations, the tests are surprisingly similar across jurisdictions. See G. Davidov, M. Freedland & N. Kountouris, *The Subjects of Labour Law: ‘Employees and Other Workers’*, in *Research Handbook in Comparative Labour Law* 119 (M. Finkin and Mundlak eds, 2015). For an analysis of the concept of worker in international law, see B. Creighton & S. McCrystal, *Who is a ‘Worker’ in International Law?*, 37(3) *Comp. Lab. L. & Pol’y J.* 691–726 (2016).

⁴⁸ Art. 1 of the Statute of Labour in Spain establishes dependency as the main characteristic of the employment contract. See M. Rodríguez Piñero, *La dependencia y la extensión del ámbito del Derecho del Trabajo*, 71 RPS 155 (1966). In the US, the courts mainly apply the ‘right-to-control test’ to establish whether there is subordination and the situation thus qualifies as a labour relationship. See R. Sprague, *Worker (Mis) Classification in the Sharing Economy: Square Pegs Trying to fit in Round Holes*, 31 A.B.A. J. Lab. & Emp. L. Univ. Wyo. 16 (2015). In Italy, Art. 2094 of the Civil Code regulating the ordinary contract of employment refers to subordinate work. In the Netherlands, the employment contract is governed by Art. 7: 610, para. 1 of the Civil Code, where the only qualification is the fact that one person works for another.

⁴⁹ M. Harper, *Focusing the Multifactor Test for Employee Status: The Restatement’s Entrepreneurial Formulation* (1 Oct. 2015), Boston Univ. School of Law, Public Law Research Paper No. 15-51 (2015), Available at SSRN: <http://ssrn.com/abstract=2684134> or <http://dx.doi.org/10.2139/ssrn.2684134> (accessed 18 Dec. 2015).

law-based test which focuses mainly on the right of the employer to control, which means that the greater the control exerted by the employer over the work done by the worker, the more likely it is that the worker will be considered an employee.⁵⁰ In the new business model and with this kind of right-to-control test, the diminished control exercised by the firm could lead to workers not being classified as employees but as independent contractors.

In short, under the right-to-control test, it is understood that workers who are not being 'controlled' by the firm do not need protection. From a legal interpretation point of view, it is debatable whether these 'new' workers (crowdworkers) are really independent. We could even argue that this is just a new kind of dependence. However, in this study, I prefer to focus on other issues: Do crowdworkers and traditional employees actually face different realities? In other words, is the work situation faced by crowdworkers different enough to exclude them from all labour law protection?⁵¹ This analysis will be put forward to justify the necessary change towards a purposive interpretation of the employment contract applied to crowdworkers.

The employment contract, that developed with the industrial revolution, was created to protect workers in large factories⁵² who were mainly identified by subordination as the main characteristic. At that time, worker subordination was associated with several factors: first, membership of an organizational structure owned by a business; second, as a hierarchical worker dependent on the employer; third, alienation from the means of production, as workers would never be owners of the factory or machines, as well as exemption from business risk, as workers were not expected to bear the business risks.⁵³ In the same sense, subordination was manifested by the fact that workers would never have access to the market (market alienation)⁵⁴ or to the products they made during their work (product alienation).⁵⁵ Since workers in the nineteenth century (the ones to be protected at the time) displayed these characteristics, the protection system was built on this basis.⁵⁶

⁵⁰ G. Toronjo Pivateau, *Rethinking the Worker Classification Test: Employees, Entrepreneurship, and Empowerment* 2 (30 Nov. 2013), Available at SSRN: <http://ssrn.com/abstract=2361789> or <http://dx.doi.org/10.2139/ssrn.2361789> (accessed 24 Nov. 2015).

⁵¹ As we have seen so far, this new production model focuses on the fact that the workers are not protected by labour law. Arguably the different regulation is used as a comparative advantage over traditional businesses. Companies that do not hire protected workers can provide services at lower prices due to the reduction of costs resulting from the non-enforcement of labour protection. As a result, this business model does not seem to be creating more efficient and productive networks but simply avoiding the imposition of protective rules.

⁵² See Valdés Dal-Ré, *supra* n. 5, at 45.

⁵³ G. Bayon Chacon & E. Pérez Botija, *Manual de Derecho del Trabajo*, Marcial Pons (1976).

⁵⁴ M. R. Alarcón Caracuel, *La ajenidad en el mercado: Un criterio definitorio del contrato de trabajo*, Civitas 28 (1986).

⁵⁵ M. Alonso Olea, *Introducción al Derecho del Trabajo*, Revista de Derecho Privado 18–19 (1968).

⁵⁶ F. Pérez Amorós, *El trabajador como sujeto del Derecho del Trabajo Español*, 133 Revista de Política Social 87 (1982).

However, this does not mean that the ‘new workers’, who have different characteristics due to the evolution of the model of production, do not face the same risks or that they do not deserve similar protection by means of legislation.

As argued by Davidov in a series of articles,⁵⁷ what makes an employee especially vulnerable and thus deserving of employment and labour protections are the democratic deficit and psychological and economic dependence. The first characteristic – democratic deficit – means being under the control of another, having a manager to answer to, lacking the ability to influence the way the work is performed and to choose the work to be performed. The second characteristic, economic dependency, should be interpreted in the sense of being unable to spread the risks among a number of different relationships. In the following it is argued that crowdworkers suffer from the same vulnerabilities as employees and therefore need the protection provided by labour law.

3.2 OBJECTIVES OF LABOUR LAW APPLIED TO CROWDWORKERS

Three main sorts of reasons or justifications typically laid down for regulating employment relations are identified in the literature: (1) market failure, (2) distribution of wealth /welfare concerns and (3) an imbalance in bargaining power.

First, market failures justify employment regulation since the employment market has efficiency problems that the law should deal with. The main failures that characterize the labour market can be summed up as follows⁵⁸: (1) information asymmetry; (2) inelasticity of labour supply; (3) collective action problems; and (4) low investment in human capital. Hyde⁵⁹ has argued that these market failures affect all personal work arrangements and not only employment relations. In order to address these market failures and promote efficient regulation, laws have to be enacted allowing workers to group together in organizations and collectively bargain the minimum terms of employment (minimum wage and maximum working hours), restrictions on child labour, and health and safety rules, among others. In short, social rights are necessary for the operation of labour markets.⁶⁰ As

⁵⁷ G. Davidov, *The Three Axes of Employment Relationships: A Characterization of Workers in Need of Protection*, 52 U.TLJ. 357 (2002). See also Davidov, *supra* n. 35, at 62, and G. Davidov, *A Purposive Approach to Labour Law* 35–45 (Oxford 2016).

⁵⁸ J. Fudge, *Fragmenting Work and Fragmenting Organizations: The Contract of Employment and the Scope of Labour Regulation*, 44(4) OHLJ 626 (2006). See also H. Collins, *Justification and Techniques of Legal Regulation of the Employment Relations*, in *Legal Regulation of the Employment Relation* 7–11 (H. Collins, P. Davies & R. Rideout eds, Kluwer International 2000) and A. Hyde, *What is Labour Law*, in *Boundaries and Frontiers of Labour Law* 37–38 (Davidov & Langille eds, 2006).

⁵⁹ See Hyde, *supra* n. 58.

⁶⁰ S. Deakin & F. Wilkinson, *The Law of the Labour Market: Industrialization, Employment, and Legal Evolution* 290–303 (Oxford 2005).

argued below, these market failures can also be identified in crowdworking and the same regulations are therefore needed.

Second, the distribution of wealth and workers' welfare have been put forward as justifications for labour law. Prosser (2006) promotes the idea that the workers' labour conditions should not be decided by the market, but as the outcome of a democratic deliberative process. The author defends the existence of a range of values in society that can be infringed in employment relations thus justifying labour regulation. As society values change over time and they are mainly subjective, Prosser's justification of the application of labour law is difficult to apply to crowdworkers. However, the evidence suggests that social values, such as the elimination of child labour, and ensuring that wages are above the poverty threshold, are also being infringed in crowdworking.

The third basic, and probably the most widely accepted, reason for the existence of worker protection that has been put forward is the inequality of bargaining power,⁶¹ due to the lack of genuine autonomy when it comes to accepting working conditions.⁶² During the industrial revolution workers could not freely negotiate the terms of their contracts, given the imbalance in power with respect to the capitalist (the factory owner). Today, we are faced with the same situation with regard to workers on virtual platforms. Uber drivers cannot negotiate their conditions to be part of Uber, but can only accept or reject them.⁶³ The same applies to other platforms.

This imbalance in bargaining power seems to be the cause of all the risks workers are subject to (both traditional workers and crowdworkers): low wages, excessive flexibility of working hours, the transfer of the risks inherent in the business to the worker, and so on. Today, the owners of the virtual platform establish the working conditions to their advantage and either workers accept them or they cannot work. As a result, the employment contract is based primarily on mandatory rules that cannot be changed by the parties. Employment protection has to be imposed on the parties, since the power imbalance means that there is no real contractual freedom for the worker. In traditional employment, labour law introduced certain limits on certain working conditions because it was understood that the conditions were not accepted voluntarily but were imposed on workers by the company.

In the end, the three justifications for labour law seem complementary rather than exclusionary, and that is why this article seeks to justify the application of

⁶¹ P. Davies & M. Freedland, *Kahn-Freund's Labour and the Law*, Stevens 18 (1983).

⁶² See Valdés Dal-Ré, *supra* n. 5, at 45.

⁶³ A. Murray, 'Uber-nomics' *Fortune*, (2014) <http://fortune.com/2014/12/29/uber-nomics/> (accessed 1 Oct. 2015) and R. Hillman & J. Rachlinski, *Standard-Form Contracting in the Electronic Age*, 77(2) N.Y. L. Rev. 440-441 (2002).

labour law to crowdworkers from the three perspectives. To do so, the analysis will consider how certain labour law regulations are needed for traditional employees and crowdworkers alike in order to fulfil labour law objectives (as described above).

3.2[a] *Minimum Wages and Temporary Contracts*

Nineteenth century day labourers queued up outside the factory, the docks, or the farm every morning hoping to find work.⁶⁴ They were hired without stable employment (or compensation for unfair dismissal) and the employer could choose at any time the number of workers required. The employer could offer the job to those who were willing to work for low pay. All these elements are reflected in the model described above. In virtual platforms, employers can hire the workers, not by the day but by the task, which can last minutes or seconds, adapting the workforce to the needs of the moment. This leaves workers totally unprotected. Workers do not know whether a minute later they will have a job or not.

In addition, the large number of workers on the platform results in a kind of auction – a race to the bottom – that reduces the value of work. The intense competition created among workers (even more intense than the competition that might have existed in the nineteenth century) inevitably means that the price of labour will tend towards zero (imbalance of bargaining power justification). Specifically, studies have been conducted showing that on these platforms, regardless of the level of payment for work, workers will be willing to work until they obtain the earnings required (minimum subsistence level). Since no rules on maximum working hours are applied, even if they are receiving wages below the minimum subsistence level, they tend to accept the task and continue to work the necessary hours until they achieve the earnings that enable them to survive.⁶⁵

Moreover, it should be noted that the rules on minimum wages aim not only to protect workers, but also the broader market. Low wages drive down purchasing power in society, thus perpetuating a downward spiral of deflation and unemployment.⁶⁶ The minimum wage is the necessary legislative response to stop this spiral.⁶⁷ If, by recognizing crowdworkers as independent contractors, we deprive the labour force of that regulation, there will be a return to weak

⁶⁴ See Cherry, *supra* n. 29, at 1083.

⁶⁵ J. J. Horton & L. B. Chilton, *The Labor Economics of Paid Crowdsourcing*, Proceedings of the 11th ACM conference on Electronic Commerce 216 (2010) and J. Berg, *Income Security in the On-Demand Economy: Findings and Policy Lessons from a Survey of Crowdworkers*, 37(3) *Comp. Lab. L. & Pol'y J.* 561 (2016).

⁶⁶ R. Edsforth, *The New Deal: America's Response to the Great Depression* (Oxford: Blackwell 2000).

⁶⁷ See Cherry, *supra* n. 29, at 1105.

domestic demand resulting from the decline in purchasing power (market failure justification).

Furthermore, it has been argued that the major goal of minimum wage laws around the world is to redistribute resources in favour of low-wage workers, minimize social exclusion and reduce inequalities of income among workers.⁶⁸ Considering these goals, it does not make sense to leave out crowdworkers, who are, as we have seen, those earning the least. A worker who earns USD 1.25 per hour (less than the minimum wage) for her time is not likely to have the skill, entrepreneurial ability or economic independence one would expect of a true independent contractor⁶⁹ (workers' welfare justification).

Finally, there is human dignity, as human beings require a minimum level of compensation at work regardless of whether the work is subordinated or independent. There are some social values that cannot be infringed at work. This means that to ensure that our dignity as human beings is respected, it is necessary to prevent workers from selling their work for below the minimum acceptable price. More often than not, our self-esteem and self-respect depend on how society values us. Accordingly, paying a ridiculously low wage (such as USD 1.25 per hour) is a way of demeaning people and goes against human rights and social values.

3.2[b] *Maximum Working Hours*

It goes without saying that before the imposition of the eight-hour working day, working hours were much longer. The statistics confirm that many of the workers on these platforms have another full-time job but need more work to make a sufficient income.⁷⁰ As wages have been declining in traditional employment, workers need to supplement their income with other forms of alternative work, in this case, using 'flexible' jobs where they can provide services only in their 'free time'.⁷¹ However, this 'flexibility' cannot be seen as advantageous for workers, since many of them have to do a full day's work in addition to their work on the platform. As a result, these workers do not freely choose this type of work, but instead low wages are forcing them to accept it (imbalance of bargaining power justification).

Moreover, the existence of maximum working hours is a protection not only for workers but also for society in general. First, long working hours give rise to

⁶⁸ See Davidov, *supra* n. 57, at 77.

⁶⁹ R. Carlson, *Why the Law Still Can't Tell an Employee When It Sees One and How It Ought to Stop Trying*, 22 Berkeley J. Emp. & Lab. L. 361 (2001).

⁷⁰ R. Teodoro et al., *The Motivations and Experiences of the On-Demand Mobile Workforce*, CSCW'14, 5 (2014).

⁷¹ 60% of workers on Amazon MTurk have other jobs besides crowdworking. See Berg, *supra* n. 65, at 556.

major health problems that end up being paid for, in many cases, by society in general. Second, the maximum number of hours per day also concerns the distribution of labour to reduce unemployment. There are social interests behind these regulations, which remain applicable regardless of how the work is organized (whether subordinate or not).

3.2[c] *Payment in Kind*

Labour law prohibits employers from paying their workers in vouchers which could only be spent in shops owned by the employer.⁷² Today, in some cases, payment in kind is still seen. The Amazon platform allows the requester to pay its workers with money that can only be spent on goods on Amazon. Once again, this situation harms not only the workers but also the market as a whole. Limiting purchasing to one company reduces market competition, leading to a captive clientele and increasingly monopolistic markets (market failure justification).

3.2[d] *Child Labour*

It has already been mentioned that some companies remunerate work with vouchers that can only be spent on video games. This has attracted criticism since this form of remuneration can encourage child labour.⁷³ Some studies have shown that workers on virtual online platforms are underage young people working in their free time.⁷⁴ As already noted, child labour infringes the most basic social values.

3.2[e] *Organizational Inefficiencies and Being 'on Call'*

The imbalance in the bargaining power of the parties can easily result in certain risks shifting to the bottom of the chain: the worker. Specifically, in factories or in agriculture, with the adoption of piece-rate or performance-pay systems, workers used to bear the burden of delays, the lack of supply, the lack of work or any other administrative mismatch in the company. Thus, when workers could not produce at the factory, due to shortcomings on the part of the employer, the worker was on duty, but without remuneration. Over time, the law has regulated such situations to prevent the employer from imposing on the worker the cost of shortcomings on the part of the company.⁷⁵

⁷² Protection of Wages ILO Convention, 1949 (No. 94). E.g. Art. 26 *Statute of Labour in Spain*.

⁷³ See Aloisi, *supra* n. 9, at 9.

⁷⁴ See Teodoro et al., *supra* n. 70, at 240.

⁷⁵ See e.g. Art. 30 *Statute of Labour in Spain*.

With the advent of the on-demand economy, the costs arising from such inefficiency have once again been reallocated to the weaker party. Regulations preventing the imposition of these inefficiencies on workers not only benefit the workers themselves, but also national productivity. If a company can shift the cost of its shortcomings to workers, the employer will have no incentive to improve work organization or productivity, or even to invest in any kind of improvements.

Specifically, finding tasks to be done on crowdsourcing platforms is costly for crowdworkers. They have to spend a lot of time ‘on call’ in order to get a task. Berg⁷⁶ reported that ‘the toughest part of turking for a living is actually finding the jobs, for every hour I spend working, I most likely spend two hours monitoring (...) to see what jobs show up’. That means that in this model the worker has to bear the cost of unproductive time due to a bad organization of work.⁷⁷ Workers do not have the capital or the information to improve the work organization. The platform has the capital and information to improve the organization, but as long as it is able to offload such costs onto the workers, there will be no incentive to improve the system and to increase productivity. This market failure is dealt with by labour law, which ensures that the employer bears the costs arising from such risks.

3.2[f] *Highly Variable Wages*

As regards remuneration, the literature shows that it is much more efficient for society in general and for workers in particular to receive a part of their salary as a fixed or invariable amount for the following reasons:

- *Risk-averse workers*: The first reason is that workers do not bear risk well, which means that variations in income result in higher costs for workers than employers. For workers, variation in salary involves significant costs due to the need to support the family, pay the rent or mortgage, and so on.⁷⁸
- *Limits on credit for workers*: Economic theory states that individuals who are facing changes in their lifetime earnings turn to the capital

⁷⁶ See Berg, *supra* n. 65.

⁷⁷ Judgment of Spanish Supreme Court, 22 Dec. 2000 (rec. 1438/2000) establishes that the worker has the right to be paid the salary due for ‘being on call’. In this case the employer was a transportation company which only paid when the driver was offered a job. The Supreme Court ruled that the driver was entitled to wages for the entire shift pursuant to Art. 30 of the Spanish Statute of labour.

⁷⁸ J. E. Stiglitz, *The Design of Labor Contracts: The Economics of Incentives and Risk Sharing*, in *Incentives, Cooperation, and Risk Sharing: Economic and Psychological Perspectives on Employment Contracts* 48 (Haig R. Nalbantian ed., Totowa, New Jersey: Roman & Littlefield 1987). See also B. Ríos Salmerón, *Inembargabilidad del salario*, in *Enciclopedia Jurídica Básica* vol. III, 3549 (A. Montoya Melgar ed., Madrid: Civitas 1995).

market to borrow today what they hope to earn in the future. This theory works in perfect capital markets, where there is perfect information, but in reality capital markets are often closed to most (subordinate or independent) workers, meaning that they cannot mitigate volatility in their income through the use of financial instruments. In contrast, companies have easier access to credit and as a result they can deal with variations in income more easily.

- *Limits to risk insurance*: Another option for individuals who are risk-averse is to take out insurance. The individual who recognizes that income can be subject to significant variations has the option of insuring against that risk. However, again, it is difficult for workers to insure against that risk on the market, and as a result they rely on their employer to provide cover against that risk.⁷⁹
- *Risk diversification*: The employer can easily reduce the total risk assumed by diversifying investments in different projects, but this is more complicated for workers. In general workers concentrate all the income they earn on their ability to work, so they are not able to spread the risk of variation in income.

Risk-aversion among workers justifies the need for the wage protection granted by labour law. As Carlson⁸⁰ has pointed out, one of the main aims of labour law in its origins was to protect wages. Some laws, such as those granting preference to wages in bankruptcy cases or requiring liens to secure indebtedness based on unpaid wages, had the objective of protecting people who depended on a regular income in order to be able to face the cost of living. Actually, in the early days of labour law those regulations were applicable regardless of the degree of dependence on the employer, as the important thing was to protect those in need (workers' welfare justification).

In general, as Davidov⁸¹ has argued, independent contractors appear to be able to protect themselves to some extent from work-related risks since they can self-insure by hedging their risks, while employees find themselves in a position in which they are unable to distribute risk. In this context, it seems obvious that crowdworkers who work for an online platform are unable to diversify their risks since their income depends on the platform – i.e. the possibility of deactivation. In addition, as online reputation is not transferable from one online platform to another, workers cannot hedge their risks by working for different platforms. In fact, the costs of changing platforms can be even higher than the costs of changing jobs since workers have to

⁷⁹ See Stiglitz, *supra* n. 78, at 48.

⁸⁰ See Carlson, *supra* n. 69, at 307.

⁸¹ See Davidov, *supra* n. 57, at 47.

start building their reputation every time they change platform (provided that the platform does not require exclusivity, which some do). In the end, crowdworkers have to ‘place all [their] eggs in one basket’⁸² just as employees do.

Even if crowdworkers are able to work for more than one platform (which is not easy, as explained above), this does not mean that they can self-insure to hedge against these risks. An employee who has more than one (part-time) job is still an employee because legislation considers that the risks are not sufficiently diversified. Working for two platforms is not enough – in my view – to conclude that they can self-insure against these risks.

3.2[g] *Collective Bargaining*

Collective bargaining is an instrument enabling workers to protect themselves. However, as it is one of the fundamental forms of labour regulations throughout the world, it seems fair to wonder whether crowdworkers need collective bargaining as employees do. The function of collective bargaining has been described as threefold: workplace democracy, redistribution and efficiency.⁸³ As already explained, the platform unilaterally lays down working conditions (including the ‘satisfaction clause’). Thus, crowdworkers face an inequality of bargaining power. By means of collective bargaining, crowdworkers might be able to gain some bargaining power and change the way the workplace operates, and the way they are treated, rather than just quitting (‘voice’ rather than ‘exit’). It is important to bear in mind that collective bargaining allows workers to gain a voice and to take part in decisions on matters that affect their daily lives. That is why it is considered a basic human right. In this sense, the way crowdworkers do the job – under instructions or on an autonomous basis – does not seem sufficient reason to deprive them of their right to collective bargaining on how the online platform organizes their work.

On the redistribution of power from employers to employees, once again there are no distinctions between traditional employees and crowdworkers. The online platform holds the power. As a result, crowdworkers suffer from unfair or unjust terms of engagement just as employees would be subject to in the absence of collective bargaining.

With regard to efficiency, collective bargaining laws were intended to limit industrial conflict, which is obviously detrimental to efficiency.⁸⁴ Today, we are facing the same situation with crowdworkers. Collective action against ‘on

⁸² P. Weiler, *Governing the Workplace: The Future of Labour and Employment Law* 142 (Harvard University Press 1990).

⁸³ See Davidov, *supra* n. 57, at 86–95.

⁸⁴ *Ibid.*, at 94.

demand' companies has been reported in many parts of the world.⁸⁵ Crowdworkers may soon be organized and ready to take industrial action.⁸⁶ Contract law is not suited to solve these problems, which will give rise to efficiency issues.

In the end, all the questions examined remain applicable to both traditional employees and crowdworkers. These workers on virtual platforms are not, economically speaking, entrepreneurs. On the contrary, they are individuals whose position is much closer to that of employees. Crowdworkers are risk-averse, with limited access to financial and insurance markets and, as they are directly dependent on their labour to survive, they cannot diversify their risks nor negotiate their conditions individually.

4 HOW TO PROMOTE PROTECTION FOR CROWDWORKERS: A SUGGESTION

4.1 VULNERABILITIES AND THE NEED FOR PROTECTION

As argued above, the vulnerabilities of employees are the same as those of crowdworkers. Davidov outlined three main sorts of vulnerabilities; (1) organizational, (2) social, and (3) economic. First, concerning the inability of the workers to organize their work there appears to be a democratic deficit as a result of the imbalance of power between labour and capital, in which the employer has the upper hand. The same applies to crowdworking, where organizational conditions are determined by the online platform and the worker is forced to accept them. Moreover, conditions can change over time and the worker has no choice but to accept them or to stop working with the platform. The possibility of crowdworkers to choose how many hours to work or when to work is not sufficient to argue that crowdworkers organize their work, and this is for two reasons. First, freedom is more of a dream than a reality. According to the data,⁸⁷ crowdworkers would like to work more than they are able to due to the lack of tasks. This means that there is no real freedom with regard to how many hours they want to work. Second, the online platform organizes the work and lays down the conditions at its own convenience, not just with regard to the initial conditions. They can change the organizational instructions over time as the online platform changes its business model.⁸⁸

⁸⁵ For an example of conflict see: <http://qz.com/619601/uber-is-using-its-us-customer-service-reps-to-deliver-its-anti-union-message/> (accessed 2 Nov. 2015).

⁸⁶ See the Irani and Silberman experiment in I. Irani & S. Silberman, *Turkopticon: Interrupting Worker Invisibility in Amazon Mechanical Turk*, Changing Perspectives, (Paris 2013).

⁸⁷ See Berg, *supra* n. 65, at 560.

⁸⁸ As an example of Amazon MTurk see <http://turkrequesters.blogspot.co.at/2013/01/the-reasons-why-amazon-mechanical-turk.html> (accessed 12 Nov. 2015).

Second, the social point of view refers to work as the major framework for social interaction, and work as a provider of the means to achieve dignity, self-respect and self-esteem. As workers trust a specific employer for the fulfilment of these needs, they are vulnerable when they lose their jobs. In the case of crowdworkers, as the data shows,⁸⁹ the workers trust the platform to provide enough work to meet their needs, so they can be adversely affected if they are ‘deactivated’. Third, from the economic viewpoint, we already discussed how crowdworkers are unable to distribute their risk among a number of employers or customers. In fact, since they are paid on a piece-rate basis, they need greater protection as they are assuming more risks than traditional employees (on fixed wages).⁹⁰

Finally, in economic, social and organizational terms, crowdworkers and traditional employees work within the same reality and require legislative protection. For this reason, in my opinion, it may not make much sense to debate whether or not twenty-first century workers fit into a legal definition of employment contracts from the nineteenth century – whether their work is controlled or not. Rather, the real issue is that the reality to which the protection is applied is the same.

4.2 THE LACK OF ‘CONTROL’ IS NOT A REASON NOT TO PROTECT CROWDWORKERS

Davidov⁹¹ has advocated extending labour protection to dependent workers, in the sense of those characterized by economic dependency. He defends the view that workers without subordination but with economic dependency are in a vulnerable economic position, so they also need labour law protection. This purposive approach seeks to differentiate workers from independent contractors by reference to the vulnerabilities of employers that explain the need for protection.⁹² As argued in this article, regulations such as the minimum wage, working hours, annual leave (we will add: the ban on child labour, limitation on payment in kind, organizational deficiencies, risk aversion regulation, and collective bargaining) are all based on the assumption that a solution reached by the market cannot be guaranteed and the law should correct such deficiencies regardless of the degree of control exercised by the employer over the worker.⁹³

In the case of crowdworkers the only factor that can be cited to defend the view that they are independent contractors is the degree of control exercised by the online platform, and probably not even that, since control is exercised

⁸⁹ See Berg, *supra* n. 65, at 560.

⁹⁰ See Davidov, *supra* n. 57, at 46.

⁹¹ See Davidov, *supra* n. 35.

⁹² See Davidov, *supra* n. 57, at 35.

⁹³ See Davidov, *supra* n. 35.

indirectly by the monitoring system⁹⁴ and the online reputation management system. However, as we have argued in this article, even if there is no control in the way the work is performed, there are still enough reasons to protect workers and apply labour law provisions. Vulnerabilities, market failures and the need to maintain certain social values are still there. In the end, the lack of instructions given by the employer should not be a reason to set aside labour law provisions. Neither 'subordination' nor 'dependency' should be seen as a synonym for 'control'. Control refers to the instructions given to the employee, in the sense of management telling the workers what to do and how to do it, but subordination and dependency are much broader terms, which include economic dependency (the lack of any opportunity to diversify risk) and psychological dependency.

As new technology allows firms to provide work for third parties without giving direct instructions, the traditional 'right-to-control test' could easily fail to provide protection for workers who need it just as much as traditional workers. In this sense, in order to protect crowdworkers from vulnerabilities, the courts should not adopt a strict 'right-to-control test' but a purposive interpretation of the employment contract.

4.3 CROWDWORKERS AND INDEPENDENT CONTRACTORS

The exclusion of some workers from labour law protections is not only an issue relevant to the sharing economy. It is well known that technology can aggravate this situation exponentially and it has particular characteristics worth investigating, though it would be naïve to claim that we are facing a completely new problem. In the evolution of the labour market over the past few years, we can observe a rise in the use of self-employed workers. Indeed, the extreme flexibility and the transfer of risks from companies to workers through the use of self-employment extends far beyond the on-demand economy.⁹⁵ Hence, it would be reasonable to claim that crowdworking in the sharing economy is part of a broader trend towards the use of self-employed workers.

It could be argued that, in general, the self-employed also need minimum wage protection, control over payment in kind, and so on, so what is the key difference between crowdworkers and independent contractors? In my view there are two differences. First, independent contractors can diversify their risks (as discussed above) and, second, independent contractors do not have someone else responsible for complying with labour regulations, that is, an employer.

⁹⁴ M. Cherry, *Beyond Misclassification: The Digital Transformation of Work*, 3 *Comp. Lab. L. & Pol'y J.* 583 (2016).

⁹⁵ V. De Stefano, *The Rise of the 'Just-In-Time Workforce', On-Demand Work, Crowdwork and Labour Protection in the 'Gig-Economy'*, *Conditions of Work and Employment Series* 71, 6 (2016).

Arguably, the main problem in applying labour regulations to ‘non-controlled’ workers is that when there is no-one giving instructions – controlling the work – it is not always easy to identify the employer. This is the case of freelancers, independent contractors and small vendors, who are really independent contractors who do not have a clearly identifiable employer who can be held responsible for complying with labour regulations. It is undeniable that without an employer it is difficult to apply labour law protection.⁹⁶ Nevertheless, that should not be a problem in the case of crowdworkers, since the online platform – regardless of the detailed instructions – organizes the work and dictates the contractual terms. As a result, the most appropriate solution is to make the online platform responsible for complying with labour law protection.

A second possibility has been suggested by Prassl and Risak,⁹⁷ who argue that the conceptualization of the term ‘employer’ needs to move from the current rigidly formalistic approach to a flexible, functional concept. In short, these authors distinguish between five functions of the employer and they considered it possible that, in the case of crowdworking, some of these functions are carried out not by the online platform but by the requesters. In this context, some of the responsibilities concerning compliance with labour law should be shared among the requester and the online platform or be assigned according to their functions. In any case, this is no longer a subjective scope problem of labour law but an issue of identifying the employer responsible for the conditions of employment.

5 CONCLUSION

In the coming years the use of technology will continue to transform organizational models by making workers less directly controlled. In the service sector, companies will not need to give instructions or supervise work performance. Conversely, through technology, firms will rely on the evaluations made by their customers about the quality of the work. These assessments will be used to select future workers (hiring and dismissals). Some firms will not have any reason to train their workers, as, if they want to work, they will need to be already trained and ready to work. Modern work, through virtual platforms, is configured with lower levels of subordination and greater freedom for workers to perform their

⁹⁶ For more information about the challenges to incorporate non-market work into employment law, see D. Zatz Noah, *The Impossibility of Work Law*, in *The Idea of Labour Law* (Davidov & Langille eds, OUP 234–255, 2001). The absence of an employer makes most of the employment law regulations useless. It has been said that for unpaid care work and for small vendors (who do not have an identifiable employer) the regulations addressing their needs will have different means, compared with laws protecting employees; see Davidov, *supra* n. 57, at 8.

⁹⁷ See Prassl & Risak, *supra* n. 22, at 619.

work and choose their working hours. For this reason the definition of the contract of employment existing to date (as interpreted by the courts through the 'right-to-control test') does not fit this modern work organization. However, this does not imply that crowdworkers do not need protection.

This new business model is not based on improving competitiveness and production efficiency, but on cutting costs by reducing social protection and allowing competition among workers in relation to remuneration. All this may lead to the disappearance of companies that do not want to adopt this organizational model because they will incur higher costs. From the moment that certain firms are allowed to exploit such 'comparative advantages', the rest will either adopt the model or disappear.

We should not accept a new production model based on a paradigm of exploitation and degradation of human dignity at work. It is fair that technology improves organizational forms and business productivity, but legislation cannot allow the competitive advantages of business models in the twenty-first century to come from exploiting loopholes and avoiding the worker protection put in place over the past century or more.

Workers on virtual platforms are not entrepreneurs who can negotiate on equal terms and use their initiative to maximize profits. They are interchangeable operatives on a long list of virtual jobseekers. In the case that they do not fit in with the courts' interpretation of what an employee is, it is not because they do not face the same social reality, but because we have an outdated law (or an outdated legal interpretation of the concept of workers) that is not well adapted to the new business models.

In this article I have argued that, since traditional workers and crowdworkers face the same reality, both groups need protection. A purposive interpretation of the employment contract is needed to allow labour law to fulfil its objectives (solving market failures, maintaining social values and balancing bargaining power).

The next issue to tackle, though not in this article, is to identify exactly what kind of protection that crowdworkers need. The conclusion of this article is that, despite the degree of control exercised by the employer over the worker, at the very least, regulations need to be applied governing the minimum wage, working hours, annual leave, the ban on child labour, limits on payment in kind, organizational deficiencies, risk aversion and collective bargaining.