

The Rise of Platform Economies: Analysis of Regulatory Requirements in Europe and Implications for Employment Relationships

Antje Bollen
University of Bremen, Institute Labour and Economy (iaw)

Summary

Platform economies rapidly developed across Europe and are currently covering a variety of sectors. Despite the enormous economic potential of modern platform economies, the commercial procurement of services through digital platforms is discussed controversially. As a result, the European Union is forced to deal with multiple challenges regarding to platform economies. Major difficulties derive from undefined employment relationships and work structures in platform economies, often resulting in low wages and poor working conditions, combined with disregards of workers' rights and work safety, social security and quality of work.

This paper focuses on the economic and political impact of platform economy on the European labour market and the ongoing discussion on efficient regulation of platform economies within the European multi-level system. For this purpose, the structures of five well-known platform providers of different branches operating in European countries are analysed - *Foodora*, *Helpling*, *HomeAdvisor*, *Airbnb* and *Amazon Mechanical Turk*. The key focus lies on working structures and conditions of employees working within platform economies. Analysis and classification are carried out on the basis of selected studies on labour markets in the platform economies, taking aspects like local or personal dependencies of services into account (Cloudwork/Gigwork). This research highlights the large diversity and complexity of the core business and structures of individual platform providers. It allows conclusions on the regulatory requirements for platform economies and underpins the need for regulatory measures in Europe.

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1. Platform economy in Europe

In the last decade, digitalisation continuously became a game changer for modern business of the private sector, resulting in enormous changes to a variety of business sectors. This progress is reflected in modern business models, utilizing online services, that have developed in addition to traditional providers in the market. Prominent examples include companies such as *Uber* in passenger transportation and *Airbnb* in the hosting industry (cf. Bruhn & Hadwich 2017, 7). Such modern companies are also referred to as "*Platform economy*"¹ because the core business is handled through digital platforms.

Bruhn & Hadwich (2017) suggest that the impact of digitalisation on traditional market concepts will increase even further. This hypothesis is supported by PwC (2016), predicting an annual growth of about 3% and revenue growth of 35% of such platform economies. Despite this substantial development, platform economy has been more successful in other parts of the world (USA, China) compared to Europe. Winter (2017) points out the potential urgency for Europe to develop a stronger presence in the field of platform economy in order to be able to compete globally. However, these intensified activities in the platform economy go along with considerable challenges as the "burgeoning" platform economy is contributing to changes in the European labour market (cf. De Groen et al. 2017, 345; Drahokoupil & Fabo 2016, 4). An example are the often non-transparent structures of employment within platform economies that pose difficulties for the European Union and its member states.

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The selected providers for analysis include the delivery service *Foodora*, the cleaning service provider *Helpling*, and in the field of home maintenance and improvement the provider *HomeAdvisor* was chosen. As a marketplace for hospitality *Airbnb* is examined, while

1 There is no uniform definition of the term "Platform economy". In literature, various terms are used in a similar context, e.g. "Sharing Economy" or "Collaborative Work" (cf. Fabo et al. 2017, 164; De Groen et al. 2017, 346).

2 In the context of this paper, those companies that operate a good or service through a platform are referred to as "platform operators", "providers" or just "platform". For those actors who work in the context of a platform (or offer services via platforms), regardless of the status of employment, the term "platform worker" will be applied. "Platform users" or "Platform customers" are called those actors who use a service via the platform.

Amazon Mechanical Turk (short: *AMT*) is considered as a marketplace for Clickwork.³ The platform structures are analysed with regard to the following three aspects:

- ❖ Role of the platform or form of employment of the platform worker.
- ❖ Structure of earnings, rights and social insurances of the platform worker.
- ❖ Attitude and acceptance requirements of the platform worker (quality of work).

The information about the individual platform structures are based on website research as well as on additional information obtained by directly contacting the platform.

2. Challenges on labour market in context of platform economy

According to Lenaerts et al. (2017), the status of platform workers is the essential building block for determining regulatory action. In many cases, the form of employment cannot be clearly assigned and classified, which is due to the fact that platforms take on a wide range of functions and roles within a wide variety of branches. They can be classified, for example, from employment agencies and temporary work agencies as well as advertising platforms to markets, service providers and other actors (Huws et al. 2016, 17). Also results of country analyses by Lenaerts et al. (2017) confirm that there is no common understanding or concept in the EU identifying or determining the status of workers in platform economies. This is due to the heterogeneous structures of the various platforms, which are characterized by high diversity in their activities and tasks, the required degree of qualification and the diverse, non-transparent relationships between involved actors. De Groen et al. (2017) point out the complications of policy-making due to the lack of a clear definition of “platform economy”.

Working in the platform economy means in most of the cases an additional source of income. However, for a substantial number of EU citizen earnings by platform work is the main source of revenue (cf. Drahokoupil & Piasna 2017, 337). Platform work is often connected to poor paying and low earning structures, sometimes even below the legal minimum wage (cf. Fabo et al. 2017, 166; Drahokoupil & Piasna 2017, 337). According to Munkøe (2017), the status of the platform worker is of particular meaning, because various legal claims are directly linked to it. This includes various aspects such as vacation or insurances. Drahokoupil & Piasna (2017) highlight the difficulty of platform work in terms of non-existence or lack of taxation and social protection. Depending on the branch and activity, this fact may be more or less problematic for the worker. For example, bicycle couriers accidents of delivery services are not uncommon. From a long-term economic perspective it might result in a break-in within the social insurance system. Non-transparent employment relationships of

³ According to Schmidt (2017) „Clickwork“ means digital work in the form of microtasks.

platform work in the context of insurance and liability issues in the case of property damage and personal injury are also discussed in Huws et al. (2016).

The quality of the skills and competences of the platform workers is also non-transparent. It is not guaranteed that the worker has the required expertise or with whom the responsibility lies to check and verify the skill level and know-how. This might mean safety and health risks for both the platform worker and the user (cf. Huws et al. 2016, 18). Acceptance requirements on the platform or requirements for using the platform play a role in ensuring quality. Conversely, uncomplicated and easy access to paid work can make workers settle below their qualification level. Some of the tasks are easy-to-handle, one-sided activities that do not require specific expertise and are considered to be less challenging. This aspect might lead towards a lower qualification level of (national and European) labour market from an economic point of view (cf. Drahoukoupil & Piasna 2017, 335). Recommendations and evaluation systems via platforms enable reasonable quality insurance (cf. Risak 2017, 4).

3. Categorisation of digital labour platforms

The services offered via the platform can be differentiated into "location-based" or "non-location-based" services. The location-based services are characterized by the platform worker and the platform user get into direct interaction. They can, therefore, be called "real" services. Services independent of location are handled within the digital space, where the platform acts as an intermediary between the platform worker and the customer (cf. Risak 2017, 5). Schmidt (2017)⁴ differentiates between basic types of platforms for the intermediation of paid services. In a first step, he separates the provision of a service place from service time. To describe non-location-based services he uses the term "Cloudwork". "Gigwork" is used for provision of services by a specific person, which takes place at a defined location and time. In a second step, a distinction is made between Gigwork according to the degree of personal contact ("personal involvement necessary") or personality as well as the potentials and risks for the involved actors. Schmidt (2017) identifies aspects such as trust, consistency, quality and reliability that could play a minor or bigger role for platform workers and users in their activities. A high level of trust is particularly required when services are provided in the private space of the customer (e.g. cleaning and craft services) or if the service is even in the course of human contact with the customer (e.g. care, support) (cf. Schmidt 2017, 22).⁵

4 Schmidt, Florian A. (2017), Digital Labour Marktes in the Platform Economy. Mapping the Political Challenges of Crowd Work and Gig Work, Friedrich-Ebert-Stiftung.

5 For the category „Cloudwork“ Schmidt (2017) makes a further distinction, which will remain disregarded in this paper.

The OECD (2016)⁶ introduces a similar categorization of platform markets. It distinguishes between "digital" and "physical" services. Services in the digital space primarily describe cognitive activities, while "physical" services are those that involve the physical or manual intervention of the platform worker requiring less cognitive effort. In both of these categories, there are services that are more capital-intensive and those that are more labour-intensive (cf. OECD 2016, 10 & 11).⁷ These aspects of categorization will be applied to the five providers under examination. In the following, core business and structure of each provider will be presented.

4. Research on employment structures of prominent platform providers

Foodora is a food delivery company and is currently operating in eight European countries⁸. The relationship between Foodora couriers (so-called "riders") and the platform is based on a contract, therefore Foodora riders are not self-employed. The form of contract may differ in terms of working hours and earnings. Orders assigned to them are supposed to be accepted and carried out by the couriers. Their activities are managed by Foodora via the app. Due to the contractual relationship, there are also insurance and vacation entitlements for the couriers. The earnings with Foodora in European countries range from a minimum of 7.50 € to 13 € hourly wage. In Norway, the earnings can even amount to more than € 20 (200 NOK).⁹ Moreover, tips are hinted at on websites as an additional source of income. The conditions for being hired by Foodora are very similar in the various countries. Typically, the potential courier requires a bicycle or another vehicle (e.g. scooter, car) and a smartphone. The minimum age as a recruitment criterion is 18 years in all countries, with the exception of the Netherlands, where even 16-year-olds are accepted. In addition, in all states a work permission for the respective country is required (cf. Foodora 2018).

Helping describes its business as "marketplace for finding domestic cleaners" (Helping UK) and is active in six different countries in Europe¹⁰. The platform workers registered on the platform are private or self-employed cleaners who are free to accept or reject the order requests. Furthermore, the platform worker is free to choose the price for the customer. The platform as intermediary receives a provision from the registered platform worker. All cleaning workers are insured against liability or accidental damage. The websites show that

6 Organisation for Economic Co-operation and Development (OECD) (2016), Working Party on Measurement and Analysis of the Digital Economy, New Forms of Work in the Digital Economy.

7 The OECD (2016) makes a further distinction between routine and less qualified and more highly qualified tasks. In general, further forms for categorization are possible and overlaps between different platform categories may occur.

8 Foodora: AUT, GER, FIN, FRA, ITA, NED, NOR, SWE

9 The country-specific conditions and minimum wages have to be considered.

10 Helping: FRA, NED, ITA, IRL, UK, GER

workers managed via the platform are not necessarily required to be professionals. This means that non-professionals have the chance of gaining acceptance as workers on the platform. Nevertheless, for acceptance Helping requires certain documents such as identity cards, residence permits, clearance certificate or trade license. "Helping Germany" even reserves the right to demand references or to demand test cleaning (cf. Helping 2018).

*HomeAdvisor*¹¹ is an American platform in the field of craftsmanship and home improvement. In European countries, HomeAdvisor operates with different brands (e.g., "Instrapro" (ITA), "MyBuilder" (UK), "MyHammer" (GER)). Craftsmen can register on the platforms, paying a membership fee. Additional fees can depend on the number of mediated customers (for example like in Germany). In all countries the craft worker determines the price for the customers. For the customer, mediation through the platform is free. Accordingly, the platforms act as intermediaries between craftsman and customer. The service providers (workers) are certified craftsmen who have to prove their qualifications, admission to public bodies and a trade license. The website of MyBuilder (UK) even states that the company refuses to accept a third of the applying craftsmen on the brokerage platform. In some cases, platform workers¹ must accept the code of conduct of the platform operator (cf. HomeAdvisor 1999-2018, MyHammer w.y., MyBuilder 2008-2018).

Airbnb is a marketplace for leasing and renting of accommodations and rooms in various ways. Airbnb as a platform acts as an intermediary between host and guest. Currently, in all European countries people can be hosts on Airbnb (cf. Airbnb 2018a). They can provide their rooms internationally from any country in the world if they enable guests to check in by themselves. Airbnb advertises a worldwide coverage of liability claims for their hosts and landlords up to the amount of 1 million USD. Both property damage and personal injury are covered (cf. Airbnb 2018b). Hosts are free in setting prices (cf. Airbnb 2018c). Airbnb will charge the hosts by 3% processing fee¹² for each reservation, which will automatically be deducted from the withdrawals. The fee for the guests is between 0% and 20%¹³ (cf. Airbnb 2018d). The laws may vary in the respective EU countries and cities. For example, existing regional or local regulations limit the ability to accommodate paying guests for short periods of time. As well, depending on the city, registrations, permits or licenses may be required for the permission to host guests (cf. Airbnb 2018e).

11 HomeAdvisor: FRA (123Devis & Travaux), GER (MyHammer), ITA (Instapro), NED (Werkspot), UK (MyBuilder)

12 Host service fee may be higher, for example for hosts in Italy (cf. Airbnb 2018d)

13 The amount of the fee, for example, can depend on the subtotal of the booking, the length of the stay or characteristics of the accommodation (cf. Airbnb 2018d).

Amazon Mechanical Turk (AMT) describes itself as a "marketplace for work that requires human intelligence". In doing so, so-called "requesters" can "outsource" small-scale tasks for editing by making them available through the platform, while "workers" can choose between these tasks. These are tasks (also called "Human Intelligence Task", in short "HIT") such as doing research on data details, transcribing files or identifying objects in photos and videos. The requesters determine if the requested work is approved and payment is made within 30 days. AMT dissociates itself from such a grant of approval or disapproval. The task is supposed to be accepted and finished in a time slot fixed by the requester (cf. Amazon Mechanical Turk Worker 2005-2018 a+b).

An official employment relationship is not consisting for the worker, neither with AMT nor with the requesters. Amazon Mechanical Turk Worker (2017) points out that they have "no control over the quality, safety, or legality of tasks or consideration for tasks, the ability to perform tasks to requesters' satisfaction, or the ability to pay for Tasks".

In general, it is possible for everyone to work on AMT on their own schedule flexibly. The amount of earned money depends on the amount of accomplished work. The requester determines the amount of pay, while the worker is free in deciding which tasks he likes to accept. Special skills and qualifications are not required for this type of work. The worker requires a personal computer with access to the Internet and must be at least 18 years old. The registration process is conducted via the platform and is thereafter checked for acceptance by the platform operator.

5. Categorization and comparison of the analysed platforms

Publicly accessible conditions and structures of online platforms were presented and will be further examined using the categorization tools of Schmidt (2017) and the OECD (2016). Additionally, the initially mentioned three aspects will be further assessed, i.e. the specific role of the platform, earning structures, social rights and acceptance requirements.

The companies Foodora, Helping and HomeAdvisor belong to the field of Gigwork, as the provision of the service, in the course of physical activity, takes place within a specific local area. Platform workers and users get into direct interaction, so the service is provided in the physical field. "Physical services" according to the OECD (2016) and "Gigwork" according to Schmidt (2017) result in the same outcome, although seen from different point of views.

The here presented platform providers are characterized by a high labour intensity. The acquired service consists to a large extent of immaterial labour. In the case of capital-intensive services, on the other hand, enormous capital of the platform worker is included in the provision of the service (cf. Schmidt 2017, 11). Although material goods play a role in labour-intensive services, they are used more supportively, e.g. cleaning agents or tools.

Airbnb is to be classified as capital-intensive service, based on the use of capital in the form of apartments and accommodations by the host.

In contrary, Airbnb is also part of the Gigwork. Booking an accommodation is connected with a certain location. Cognitive skills are less required by the host. Personal contact between the guest and the host is not uncommon (in this context, trust and sympathy may be important), but that sort of contact is not mandatory for the provision of the service.

The core business of the examined platforms HomeAdvisor and Helpling is classified as a highly private one. Not only is personal contact or a face-to-face situation established, but as well the provision of services takes place in the private sphere of the platform customer.

Therefore, confidence and sympathy between customer and worker are more crucial than for a platform like Foodora. Here, personal contact only briefly takes place as part of the food delivery and is performed outside the personal living area. The customer thinking of using the service will make up his mind independently of the person who delivers the food (cf. Schmidt 2017, 19). AMT belongs to the category "Cloudwork", since the order is accepted in the digital world and the service is provided in this realm completely. As a sole marketplace for job offers, the platform is located in the field of labour-intensive services. Capital-intensive platform markets in the area of Cloudwork include e.g. crowdfunding concepts or financial trading (cf. OECD 2016, 11).

Role of the platform or form of employment of the platform worker

The employment structure and role of the platform varies significantly across the five platforms studied. While at Foodora the platform appears as an official employer, the platform acts as an intermediary for the other providers. The platform workers are self-employed in these cases. Commercial registration for acceptance on the platform is a mandatory requirement only for HomeAdvisor. Despite the common status as an "intermediary", differences across the platforms are still evident. On one hand, Helpling or AMT state being far from real employers, on the other hand the dependence of the worker to the platform is more intense than it is with HomeAdvisor. For craftsmen, the platform is no more than an additional channel of marketing their skills.

Structure of earnings, rights and social insurances of the platform worker

The earning structures of the various platform models are highly complex. The platform workers on Helpling, HomeAdvisor and Airbnb gain their profit through payment by their customers and guests. They are free in setting prices. Again, the workers has to pay charges, fees or commissions to the respective platform providers. In the case of AMT, the worker receives the wages from the requester for completing the tasks. The requester in turn pays the operator for using the platform. The courier at Foodora, in turn, receives his

earnings for his work from the platform operator (his or her employer). According to the platforms, Foodora, Helpling and Airbnb provide insurance protection for their workers. Since there is an employment contract between the couriers and Foodora, there are benefits such as vacations.

Attitude and acceptance requirements of the platform worker (quality of work)

The accessibility of the platforms is usually organized in a partly intuitive, partly more complex way and supervised through skills and attestation on the platforms. All platforms - except HomeAdvisor - address an open, broad variety of individuals because they accept and employ a broad range of applicants on the platform, regardless of their professional context or qualification level. Only general conditions have to be complied with or legal documents have to be submitted (for example, the age or a work permit). The access barriers to the platform are independent of qualification and might therefore be regarded as lower than with HomeAdvisor. Sometimes employment of one's own capital plays an additional role, which can vary strongly in intensity and value (from Smartphone, bicycle and computer up to accommodations).

6. Discussion

The comparison of the analysed platforms highlights the degree of complexity and the lack of transparency and uniformity within the structures of the platform providers. Although similarities between the platforms can be identified in the course of categorization, it is not possible or reasonable to establish a general "regulatory formula" for these platforms. Considering Foodora, Helpling and HomeAdvisor, they are in a common category (Gigwork - labour-intensive - personal) according to the characteristics described in point 5, but the relationships between platform and worker vary, as well as their dependency status on the platform. Although an official employment contract between the platform and the worker is linked to rights and claims of the employee, this does not guarantee well-paid and commendable employment conditions. Engaging self-employed platform workers in a professional contract is not a universal solution for each platform.

Differences in earning structures among the analysed platforms reflect that the "modern" platform structure is continuously changing traditional value chains. According to Winter (2017), the original chains will not only be changed substantially, but might even disappear completely.

In the platform category "Gigwork" a commonality of the "self-employed" can be identified. They are characterized by the fact that they are free both in the acceptance of requests and in setting the price of their services. Cavallini (2017) highlights the high level of flexibility that is given to the platform worker despite strict control through platforms. Kenney & Zysman

(2016) point out that high flexibility in turn makes full-time employment difficult to achieve. In addition, platform workers may have to spend a considerable amount of time waiting and searching for suitable tasks. Their permanent availability is expected for an uncertain period of time, in order to enable the accomplishment of the respective tasks as quickly as possible (cf. Drahekoupil & Piasna 2017, 335). Permanent attendance means a limitation in the workers' flexibility. This aspect applies especially to AMT because tasks are supposed to be accepted and accomplished within a specified framework of time.

Taking labour-intensive services into account, politics should focus on the platform workers as well as their customers with regard to their personal risks. The more non-personal the services are designed, the more personal risk for the customers can be excluded and the focus should be directed to the working conditions of the platform workers.

High capital intensity does not necessarily result in low labour intensity. At the same time, high capital intensity is less significant for employment-related policies. Guttentag & Smith (2017) point out that the Airbnb platform is a subject of political discussions, these primarily focus on its influence on the hotel industry. The problem of employment structures is particularly evident in labour-intensive services.

The structures and the core business of the individual providers within the European countries are broadly comparable. For the individual platforms of Gigwork, European countries can learn from each other as part of a benchmarking or "best practice" system. Variations can be found in aspects such as the safeguardings, the amount of earnings, the minimum age for employment. In addition, differences in regional legislation cause variations between the countries, for example the length of accommodation periods booked via Airbnb. According to Schmidt (2017), the influence of platform economy is more visible and regulatory measures are easier to enforce in the local area (Gigwork) than for the international Cloudwork. For the establishment of reasonable regulation, a fundamental distinction between Gigwork and Cloudwork is indispensable, implying the development of separate approaches. The settlement of a regulatory framework for the Gigwork and Cloudwork must be tackled in different ways - in an central and decentral one - by the diverse political levels in European multilevel system.

7. Conclusion

The economic and political impact of platform economy on the European labour market has been highlighted, underpinning the need for corresponding regulatory measures in Europe. Special emphasis was given to social protection, earnings structures and quality of work. With regard to the changing value chain caused by the platforms, light was shed on the urgency of discussion and action on the European level. For the five platforms examined, various aspects relevant to the labour market could be further investigated. These aspects

were analysed with regard to similarities and differences, taking into account the categorization according to Schmidt (2017) and the OECD (2016). A different approach to regulation has been identified for Gigwork and Cloudwork and is therefore considered as meaningful. While common identities within the category Gigwork have been identifiable on a point-by-point basis, they do not seem to be sufficient to formulate general regulatory measures for whole sub-categories or branches. The heterogeneities between the platforms are fundamental, so regulations in the area of platform economy might be adapted and coordinated individually for the single platforms. Nevertheless, the categorization contributes to highlighting those actors who are considered to be in need of protection within the platform structures and for whom political action may be required. The analysis of the five platforms has shown the high diversity and complexity of the core business and structures of individual platform providers.

References

Airbnb (2018a), Who can host on Airbnb. Online: <https://www.airbnb.com/help/article/18/who-can-host-on-airbnb>, August 2018

Airbnb (2018b), Airbnb's Host Guarantee. Online: <https://www.airbnb.com/guarantee>, August 2018

Airbnb (2018c) How should I choose my listing's price? Online: <https://www.airbnb.com/help/article/52/how-should-i-choose-my-listing-s-price>, August 2018

Airbnb (2018d), What is the Airbnb service fee? Online: <https://www.airbnb.com/help/article/1857/what-is-the-airbnb-service-fee>, August 2018

Airbnb (2018e), What legal and regulatory issues should I consider before hosting on Airbnb? Online: <https://www.airbnb.com/help/article/376/what-legal-and-regulatory-issues-should-i-consider-before-hosting-on-airbnb>, August 2018

Amazon Mechanical Turk (2005-2018a), Home. Online: <https://www.mturk.com/>, July 2018

Amazon Mechanical Turk Worker (2005-2018b), FAQs. Online: <https://www.mturk.com/worker/help>, August 2018

Amazon Mechanical Turk Worker (2017), Participation Agreement. Online: <https://www.mturk.com/worker/participation-agreement>, August 2018

Bruhn, Manfred & Karsten Hadwich (2017), Dienstleistungen 4.0 – Erscheinungsformen, Transformationsprozesse und Managementimplikationen. In: Bruhn, Manfred & Karsten Hadwich (Hrsg.), *Dienstleistungen 4.0. Geschäftsmodelle – Wertschöpfung – Transformation*, Band 2, Springer Gabler, Wiesbaden, 3-40.

Cavallini, Gionata Golo (2017), The (unbearable?) lightness of self-employed work intermediation: the cases of Uber, Foodora and Amazon Mechanical Turk in the light of the Italian labour law. Universidade Federal de Sao Paulo

De Groen, Willem Pieter; Kilhoffer, Zachary, Lenaerts, Karolien & Nicolas Salez (2017), The Impact of the Platform Economy on Job Creation, *Intereconomics*, 52(6), 345-351.

Drahokoupil, Jan & Agnieszka Piasna (2017), Work in the Platform Economy: Beyond Lower Transaction Costs, *Intereconomics*, 52(6), 335-340.

Drahokoupil, Jan & Brian Fabo (2016), The platform economy and the disruption of the employment relationship, *ETUI Policy Brief, European Economic, Employment and Social Policy*, Nr.5

Fabo, Brian; Karanovic, Jovana & Katerina Dukova (2017), In search of an adequate European policy response to the platform economy, *Transfer: European Review of Labour and Research*, 23(2), 163-175.

Foodora (2018), Website. Online: <https://www.foodora.com/>, August 2018

Guttentag, Daniel A. & Stephen L.J. Smith (2017), Assessing Airbnb as a disruptive innovation relative to hotels: Substitution and comparative performance expectations, *International Journal of Hospitality Management*, 64, 1-10.

Helpling (2018), Website. Online: <https://www.helpling.com/>, August 2018

Helpling Germany (2018), Website. Online: <https://www.helpling.de/>, August 2018

Helpling UK (2018), Website. Online: <https://www.helpling.co.uk/>, August 2018

HomeAdvisor (1999-2018), Website. Online: <https://www.homeadvisor.com/>, July 2018

Huws, Ursula; Spencer, Neil H. & Simon Joyce (2016), Crowd Work In Europe. Preliminary results from a survey in the UK, Sweden, Germany, Austria and the Netherlands, Foundation for European Progressive Studies (FEPS Studies)

Kenney, Martin & Zysman, John (2016), The Rise of the Platform Economy, *Issues in Science and Technology*, 32(3), 61-69.

Lenaerts, Karolien, Beblavý, Miroslav & Zachary Kilhoffer (2017), Government Responses to the Platform Economy: Where do we stand? *Policy Insights, Centre for European Policy Studies (CEPS)*, No. 2017-30

Munkøe, Malthe Mikkel (2017), Regulating the European Sharing Economy: State of Play and Challenges, *Intereconomics Review of European Economic Policy*, 52(1), 38-44.

MyHammer (without year), Website. Online: <https://www.my-hammer.de/preise-und-leistungen/>, August 2018

MyBuilder (2008-2018), Website. Online: <https://www.mybuilder.com/>, July 2018

Organisation for Economic Co-operation and Development (OECD) (2016), Working Party on Measurement and Analysis of the Digital Economy, New Forms of Work in the Digital Economy

PricewaterhouseCoopers (PwC) (2016), Shared benefits, How the sharing economy is reshaping business across Europe (Future of the Sharing Economy in Europe 2016). Online: <https://www.pwc.co.uk/issues/megatrends/collisions/sharingeconomy/future-of-the-sharing-economy-ineurope-2016.html>, January 2018

Risak, Martin (2017), Fair Working Conditions for Platform Workers, Possible Regulatory Approaches at the EU Level, Friedrich-Ebert-Stiftung

Schmidt, Florian A. (2017), Digital Labour Marktes in the Platform Economy. Mapping the Political Challenges of Crowd Work and Gig Work, Friedrich-Ebert-Stiftung

Winter, Johannes (2017), Europa und die Plattformökonomie – Wie datengetriebene Geschäftsmodelle Wertschöpfungsketten verändern. In: Bruhn, Manfred & Karsten Hadwich (Hrsg.), *Dienstleistungen 4.0, Geschäftsmodelle – Wertschöpfung – Transformation*, Band 2, Springer Gabler, Wiesbaden, 71-89.