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Digital platform work and employment

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1. Introduction

1. The digital economy has transformed the world of work and will continue to do so in the future. Described as a worldwide network of economic activities, business transactions, and professional interactions that are enabled by information and communications technology; it has changed how businesses are structured, how people work, and how consumers obtain goods, services, and information.

2. The emergence of digital platforms and the expected growth of digital platform work have generated high policy interest around this phenomenon. The growth in the platform economy and digital platform employment carries an opportunity for job creation and more flexible organization of the work and production processes. Concurrently, it also comes with challenges in terms of ensuring fair competition amongst enterprises and securing access to adequate levels of employment benefits and social protection for digital platform workers, which are in line with decent work standards and international labour regulations and norms.

3. Through its continued evolution, the digital economy now comprises a myriad of digital platforms in which businesses, consumers and workers can interact and exchange goods, services, and information. It has the potential to provide many groups of workers, including young people, migrants, and people with disabilities with income-generating opportunities (Dunn, Munoz, & Jarrahi, 2023). In many developing countries, these digital platforms provide a promising source of work opportunities that would otherwise be unavailable (Dahlman, Mealy, & Wermelinger, 2016), prompting governments to invest in digital infrastructure and skills.

4. Concurrently, several pertinent challenges faced by digital platform workers have begun to emerge. These pertain to algorithmic management, worker's data privacy, grievance mechanisms, work stability, working conditions, social protection, skills utilization, and the right to collective bargaining (Pesole, Brancati, Fernández-Macías, Biagi, & González Vázquez, 2018). While the COVID-19 pandemic has provided digital platform workers with many new opportunities, the risks and inequalities for these workers have also increased (ILO, 2021) (Tubaro & Casilli, 2022).

5. Statistics describing the prevalence of digital platform work, its development over time, and the characteristics of the workers and their work are essential to inform the ongoing policy debate. As current measurement practices and conceptual frameworks are still in the stages of refinement, further steps need to be taken to close existing gaps and ensure that digital platform employment is accurately represented. Additionally, as statistics are not presently harmonised or produced in a standardised manner across different regions and countries, international comparison and learning is hampered. The improvement of measurement processes and corresponding conceptual framework will be instrumental in contributing to the creation of evidence-based policies that can facilitate, support, regulate and protect digital platforms and digital platform workers.

6. The first section of the paper describes the ongoing policy discussion on the need for more data pertaining to digital platform employment, to better understand and thus solve new and related issues. This section is followed with developments towards a common statistical language to address this evolving phenomenon, including a component-based framework. Current experiences from the measurement of digital platform employment are then highlighted for notable advantages and limitations. This paper concludes with a discussion on pending and necessary improvements, such as further methodological development, a statistical framework, and processes for developing much-needed statistical standards.

2. The prevalence of digital platform employment as presently understood.

7. There have been several attempts to measure different aspects or components of digital platform employment. Characterizing for these measurements are the differences in regard to fundamental statistical aspects such as the length of reference period used, the applied definition, concepts, boundaries and the statistical source and methodology used. All factors that impact significantly on the produced estimates concerning digital platform employment and severely limits the possibility for comparison.

8. Much of the focus has been on measuring digital platform employment providing services through digital labour platforms that directly mediates work such as taxi and delivery services or on-line micro tasks. This has been done using different reference periods, definitions, concepts, and methodology which have a direct impact on the estimates produced and great care should therefore be taken when interpreting the estimates. As seen in figure 1, in selected EU countries, the estimates indicate that 9 to 22 per cent have carried out work through a digital labour platform at some point. When the reference period is narrowed down to the preceding year, estimates range to below 1 per cent in Canada and Switzerland to 11 per cent in the 16 EU member states. When the reference period is further narrowed down to a month the estimate for the same 16 countries declines to 8.6 per cent. Fewer attempts have been made to link digital platform employment to a given reference week, which is needed for comparison with the estimation of employment as defined in the 19th International Conference of Labour Statisticians ICLS resolution I concerning statistics on work, employment, and labour underutilization. Prevalence varies depending on the regions as well. For 7 selected European countries the proportion of persons carrying out work through digital labour platforms within the reference week ranges from 5-12 per cent, however the share is significantly lower in the United States (estimated to be 0.5 per cent in 2015 and 1 per cent in 2016).

9. The significance of chosen definitions is also highlighted by differences in data collected when measurement scopes are altered. When broadening the measurement beyond the provision of services through digital labour platforms to include other types of services and the provision goods, the proportion becomes higher. In the United States, 22 per cent had provided a service or good through a digital platform at least once. Again, when looking at the preceding year, the proportions are lower for the selected countries (from 1.6 per cent in Switzerland, to 7 per cent in Finland; United States: 4.5%).

Types of platforms covered

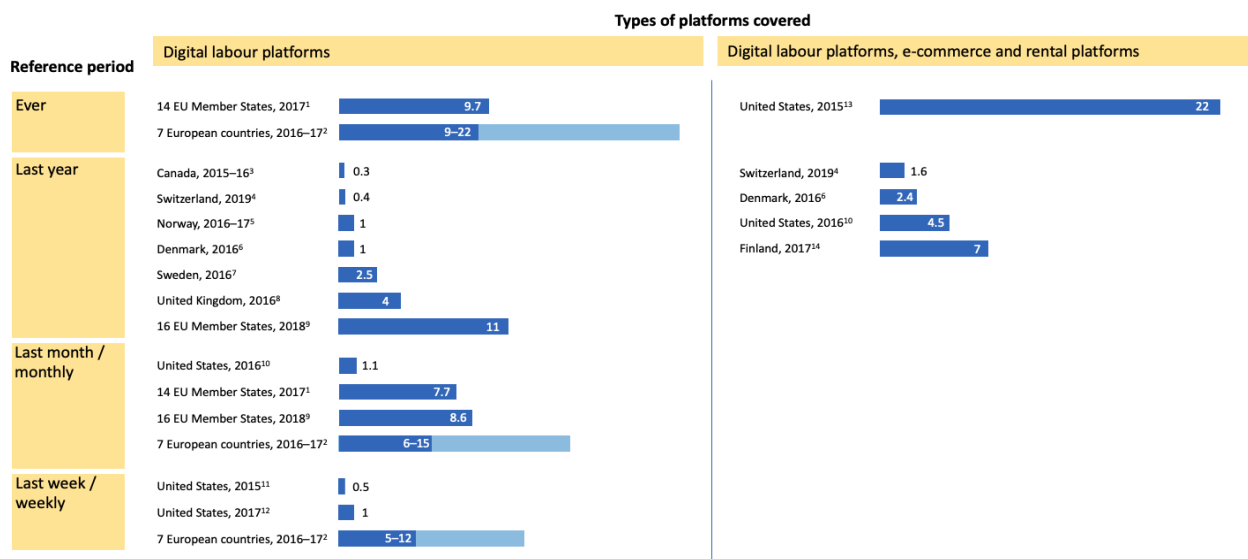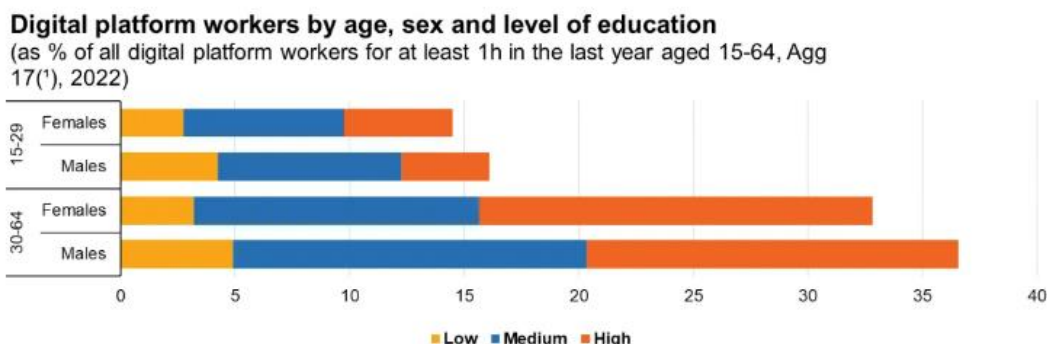| Reference period	Digital labour platforms		Digital labour platforms, e-commerce and rental platforms	
Ever	14 EU Member States, 2017[1]	9.7	United States, 2015[13]	22
	7 European countries, 2016–17[2]	9–22		
Last year	Canada, 2015–16[3]	0.3	Switzerland, 2019[4]	1.6
	Switzerland, 2019[4]	0.4	Denmark, 2016[6]	2.4
	Norway, 2016–17[5]	1	United States, 2016[10]	4.5
	Denmark, 2016[6]	1	Finland, 2017[14]	7
	Sweden, 2016[7]	2.5		
	United Kingdom, 2016[8]	4		
	16 EU Member States, 2018[9]	11		
Last month / monthly	United States, 2016[10]	1.1		
	14 EU Member States, 2017[1]	7.7		
	16 EU Member States, 2018[9]	8.6		
	7 European countries, 2016–17[2]	6–15		
Last week / weekly	United States, 2015[11]	0.5		
	United States, 2017[12]	1		
	7 European countries, 2016–17[2]	5–12		

Figure 1. The role of digital labour platforms in transforming the world of work, ILO, 2021 1. Pesole et al. (2018); 2. (Huws, N., & S., 2016); 3. (Statcan, 2017); 4. (Swiss Federal Statistical Office (SFSO), 2020); 5. (Alsos & et al., 2017); 6. Ilsøe and Madsen (2017); 7. (SOU, 2017); 8. (CIPD, 2017); 9. (Brancati, Pesole, & E., 2020); 10. (Farrell, F., & A., 2018); 11. (Katz & A., 2016); 12. (Bureau of Labor Statistics, 2018); 13. (Burson-Marsteller, Aspen Institute and Time, 2016); 14S. (Statistics Finland, 2017)

Note: The different estimates in the table are based on different definitions, concepts, methodology and sources.

10. Promising first steps are currently being taken towards the production of more comparable data. In 2022, Eurostat has conducted a pilot survey with the intention to develop an ad-hoc module for implementation in all EU countries in 2026. This is expected to produce data which is comparable between different countries, as it is based on the same definitions, methodology and reference periods.

11. Findings from this Eurostat pilot show that across 17 EU and EFTA countries, digital platform workers were more likely to be male than female (3.2 % of all males aged 15-64 compared with 2.8 % of all females). They were most common under the age of 30 (3.6 % of people aged 15-29 compared with 2.8 % for age group 30-64), and they were more likely to have a high level of education (tertiary level of education). (Eurostat, 2023)

Digital platform workers by age, sex and level of education
(as % of all digital platform workers for at least 1h in the last year aged 15-64, Agg 17(¹), 2022)

Note: (¹) Agg 17 refers to the aggregate of 17 countries listed in the definition section of the article
Source: LFS ad-hoc extraction - pilot survey

eurostat

Digital platform workers by age, sex and level of education

(as % of all digital platform workers for at least 1h in the last year aged 15-64, Agg 17(¹), 2022)

Source: Eurostat LFS ad-hoc extraction - pilot survey DPE

12. While these findings are based on different definitions, concepts, reference periods, and methodology, they do indicate that the prevalence of digital platform employment will differ between countries and can be expected to still be relatively low in certain countries. Further conceptual and methodological harmonization is needed to produce data that is comparable between countries, and comparable over time, as the estimates in Figure 1 are examples based on a wide variety of different definitions and methodology.

13. It should also be noted that the measurement of digital platform employment has mainly taken place among high-income countries, and there is a general lack of data from low- and middle-income countries. Some attempts have been made, for example in Morocco and in Latin America. For instance, the Development Bank of Latin America (CAF) conducted the CAF Survey in 2019, publishing the information as part of the Economy and Development Report, finding that a total of around 16% of the workforce can be classified as registered platform workers. Of this percentage, at least 9.4% of workers in 11 major Latin American cities had provided a service through a digital platform in the preceding month, with the highest proportions arising from Panama City, Bogota, and Quito (Development Bank of Latin America (CAF), 2021). Work within the LAC region is ongoing within the collaboration of the Labour Market Indicators Working Group CEA-CEPAL (Statistical Conference of the Americas-Economic Commission for Latin America and the Caribbean) and statistical offices in Chile, Costa Rica, México and Brazil have measured digital platform employment and are in the process of defining and analysing the topic with different degrees of progress.[1]

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[1] For more information see: Taller regional sobre identificación de personas ocupadas que trabajan a través de plataformas digitales | Knowledge Transfer Network (cepal.org) (visited: 11-07-2023)

3.   The policy needs for data.

14. Digital platforms have become a distinct part of the digital economy. As digital platforms continue to emerge, governments around the world are taking a greater interest in the situation and its corresponding impact on the labour market. The ongoing policy debates concern several different issues, challenges, and dimensions, reflecting the dynamic development of this topic and its many possibilities. From a statistical point of view, the main objective is to provide reliable and relevant data that can contribute to the policy discussion and create a more common understanding amongst policy makers. There is therefore a strong demand for the provision of statistics on digital platform work and employment as well as for statistical insight on its relevant characteristics. This policy need for data has been the driving force behind the different attempts by countries and organizations to measure different aspects of digital platform employment. An essential aspect is therefore to identify these policy needs to ensure that the statistics produced have high policy relevance and can contribute to a more evidence-based policy debate.

15. Economic growth and job creation is of high interest to governments and policymakers. With increased prevalence, digital platform workers contribute a greater share of Gross Domestic Product (GDP) over time. Therefore, an improvement in the labour productivity of digital platform workers would lead to better economic outcomes. In addition, digital platform employment might create job opportunities for groups of persons that might otherwise face barriers for entering the traditional labour market, such as workplace discrimination or personal and family commitments (Dunn, Munoz, & Jarrahi, 2023; ILO, 2021). In accordance with the increasing prevalence of digital platform work, governments may aim to implement policies and programs to increase the productivity of these workers, possibly through targeted education and training. Investing in supportive infrastructure and technology can also facilitate greater efficiency and productivity for platform workers (Asian Development Bank, 2021).

16. At the same time, there are also concerns that to some extent the job-growth within the digital platform economy is rather a transformation of existing jobs, or in some cases a termination of already existing jobs (ILO, 2021). From this point of view, the growth of digital platform work is not necessarily a net increase in the number of jobs but to some extent a consequence arising from different methods of conducting traditional work activities, which are now increasingly being carried out through the facilitation and intermediation of digital platforms. Activities such as taxi services, delivery services, retail, and wholesale ventures have been a traditional part of labour markets but might increasingly rather be carried out through digital platforms. The activities in themselves are therefore not necessarily new but to some extent traditional activities mediated through digital platforms (ILO, 2021, ILO, 2022).

17. The diversity of digital platforms and the myriad forms of digital platform employment implies that there will be positive and negative aspects of digital platform employment which impacts the quality of employment for individuals carrying out the work. Due to the nature of their work, digital platform workers may enjoy greater flexibility to organize their work, to decide on when, where and how much to work, thus creating a better work-life balance and better employment opportunities. This can potentially enable a wider range of people to find work than would otherwise be available to them due to constraints such as personal and family commitments, and more generally contribute to increasing the quality of employment for individuals. Some studies also highlight that in some specific sectors and countries, the income for digital platform workers can be higher than for those carrying out the same service in a traditional way (ILO, 2022). However, digital platform employment might also imply a lower quality of employment carried out due to the lack of any adequate alternatives, and where the work is characterized by unpredictable work schedules, such as having to work at unsocial hours with limited de-facto possibilities in choosing working hours. It might also come with lower

earnings due to an excess of labour supply, difficulties in acquiring enough work, barriers in accessing the more well-paid tasks, or lost income due to significant amounts of time spent on unpaid tasks (ILO, 2021). Digital platforms may also subject workers to unstable income structures, the inner mechanisms of which often remain unclear to the workers themselves. As a result, workers are left with little choice but to adapt their work schedules and tasks around unpredictable expectations, in manners which may not have existed before the emergence of digital platforms.

18. The use of algorithmic management as an essential part of the business models of digital platforms might also impact on working conditions and job quality (ILO, 2021). Algorithmic management can be understood as "computer-programmed procedures that use input data to remotely manage workers and coordinate work tasks in order to obtain a desired output" (UNECE, 2022, p. 39) and may be integrated in different parts of the process such as when determining the tasks to be completed, the order of tasks, the evaluation of the performance and for discipline workers through sanctions and penalties (UNECE, 2022, p. 39) . As the digital platform landscape includes various business models, the use of algorithmic management also differs significantly between them with a different degree of human intervention. In some cases, the degree of algorithmic management can be very substantive, forming the basis for several or all management tasks with little or no human intervention. Algorithmic management can be used for distribution and access to work, for rating the work and the person carrying out the work, it can determine prices for the services or goods and create incentives for working in specific areas or at certain times while disciplining underperforming workers by reducing their income or deactivating them due to low ratings. While algorithmic management is still typically used alongside human interventions the use of algorithmic management within a digital platform may significantly influences and redefines the work relationship, leaving workers with a reduced transparency around determining factors and restricted opportunities to challenge decisions (Wood, 2021; ILO, 2021; Baiocco, Fernandez-Macías, Rani, & Pesole, 2022).

19. Conversely, some other digital platforms do not necessary govern work allocation, supervision, organization, or the access of its workers to income opportunities using algorithmic managements nor through human interventions. In these cases, the platforms might function more as digital marketplaces charging some fees for listings, but do not intervene significantly beyond this point. Some examples of these platforms would include digital marketplaces, where users pay a fee for advertised listings and adhere to a terms and conditions agreement outlining fair usage of the platform but are not subject to much further intervention from the platform. Guidelines might be set on the types of products which are allowed to be transacted, and safe payment methods can be mediated through the platform, however the impact on the work activities carried out through or on the digital platform would be limited.

20. Algorithmic management and in particular the potential lack of transparency and accountability has raised concerns about its impact on work relationships and conditions. This is for example reflected in the EU directive on platform work which states that one of its three objectives is "to ensure fairness, transparency and accountability in algorithmic management in the platform work context." (European Commission, 2021, p. 3).

21. Much of the policy debate around digital platform employment has revolved around the protection of digital platform workers, particularly in terms of access to social protection and other employment benefits. In many countries, social protections are presently tied to employment status and cover those engaged in more traditional forms of employment, whereas platform workers are engaged in a service agreement with the digital platform and not a formal agreement of employment. As a result, the status of platform workers' social protections is sometimes undefined and unclear.

22. As many digital platform workers tend to have a contract for service provision with the digital platforms rather than a contract of employment, they may not be protected by the labour laws in the country nor be covered by

national social protection systems or receive employment benefits as these in many countries would be limited to just employees. Platform workers can therefore potentially be deprived of various forms of protection in case of sickness, injury, unemployment, and old age. For those who do not account for their own financial or healthcare insurance, this poses a social security risk to a potentially expanding group within the population particularly when the activity constitutes the persons main job. Even for the more financially prudent, the lack of coverage from basic social security or employment benefits might have long-lasting implications on workers' financial security. Governments might therefore be interested to formulate policies to better protect these workers and provide adequate safety nets. Some areas of concern include financial security, workers' compensation, and workers' bargaining power. Countries have pursued different strategies to address this situation. In some countries, the strategy has been to aim towards legally re-classifying some of the digital platform workers to employees or creating a legal "third category", while in other countries the strategy is rather to focus on extending social protection and other employment benefits to these workers (ILO, 2021).

23. In the European Union, the European Parliament passed a directive in December 2022 to legally establish that workers for digital labour platforms are in an employment relationship with the platforms, as opposed to self-employed independent workers if two out of five forms of control are exercised by the digital platform. The default position with the directive would therefore be that workers carrying out the services through digital labour platforms would be employees to the platform unless it is proved otherwise. Legally recognizing these workers as employees implies that they legally are covered by the social protection regulations and labour laws targeting employees in the different EU countries. (European Commission, 2021). Similarly, in October 2022, the US department of labour has proposed a rule to help employers and workers determine whether workers are employees or independent contractors depending on whether the work is an integral part of the employer's business, the level of control that a company has over the worker, and whether the worker has control over their own earnings (U.S. Department of Labor, 2022).

24. Other countries instead seek to extend social protection to digital platform workers rather than re-classifying them as employees. For example, in Singapore the intention is that social security contributions in the form of Central Provident Fund (CPF) will be made compulsory for platform workers aged below 30 from 2024, and optional for others of all ages. Work insurance will also be mandated to provide them with the same scope of protections as employees in other sectors, such as medical expenses, income loss, and lump sum compensation for permanent disability or death (Central Provident Fund Board, 2022). Similarly, India has proposed to provide social security to all employees and workers, either in the organized, unorganized, or any other sector of employment. According to the recommendation of the Indian National Commission on Labour to consolidate central labour laws, the Ministry of Labour and Employment in India introduced the Code on Social Security in 2020 to recognize platform workers (Government of India, Ministry of Labour & Employment, 2023). Additionally, the Rajasthan Minimum Guaranteed Income Bill was passed in July 2023, ensuring that all families of the state would receive an employment guarantee of 125 days per year, and a minimum pension of Rs 1,000 per month for aged/disabled/single women, automatically increased at a rate of 15% each year (Khan, 2023). In this manner, countries may ensure that vulnerable groups receive protections regardless of any developments relating to classifications in other spheres.

25. However, in many countries, there is still a lack of regulation around the work relationships of persons carrying out digital platform work, and the lack of oversight can leave digital platform workers in a situation of informality where the activities carried out would not have any effective access to formal arrangements that protect and regulate the actions and functions of the worker and the activities carried out. Even if they are legally recognized, actual enforcement might be difficult due the geographical fragmentation of where the platforms are based, an issue of particular importance in relation to digital platform employment that is carried out online rather than on-location, or due to that the activities are not declared as they might be considered as secondary activities and perceived as a complement to a formal main job (ILO, 2022). At the same time digital

platforms can contribute to formalization, for example by reporting the activities for tax and facilitating contributions to social insurance -an aspect that has received increased policy attention as it can potentially contribute to the formalization of parts of the informal economy.

26. As pointed out in numerous reports (ILO 2021, ILO 2022, OECD 2023) there is currently a lack of official harmonized data that describes the prevalence of digital platform employment in countries and how it develops over time. The lack of harmonized and consistent definitions and statistics, over time and across countries and regions, severely hampers the possibility to create a common understanding of how large a phenomena digital platform employment really is and how it impacts on countries labour markets. This ranges from which groups of workers are most impacted, to which industries and occupations are affected, to what types of digital platforms are generating the largest part of digital platform employment, and how this might shift over time. Most critically summarised, there is a lack of data which can describe the transformation, if any, of labour markets across the world, and the possible impact on the characteristics of the work.

27. There is a strong need for better, more harmonized, and comprehensive data on digital platform employment that can better inform the ongoing policy debates. This ranges from the more fundamental need for knowing the prevalence of digital platform employment, its development over time, its impact on different countries labour markets to having access to more detailed statistics such as the detailed characteristics of the persons carrying out the work, their status in employment category and the characteristics of their work relationship. This type of data would be of high importance to create a common understanding of the extent and situation of persons carrying out digital platform employment which is an important starting point for a policy discussion.

28. The discussions around the positive and negative impact of digital platform employment also calls for a provision of data that describes the more detailed characteristics of the work, such as the intensity of the work, whether it is carried out as a main job or secondary job, whether it is high-skilled or low-skilled work, working hours both paid and unpaid, the income and earnings that are generated, the form of compensation such as whether workers are paid based on working hours or on a per task basis etc. But it also points at a need to go beyond the more standard job characteristics and provide data on characteristics more specific to digital platforms such as the degree of autonomy of the digital platform worker, whether control is exercised by the digital platform and in that case in what forms, identifying barriers for participation and for accessing work on or through the digital platforms.

29. It would also be of high relevance to provide statistics on workers' access to social insurance, access to any employment benefits, and more generally the informal or formal status of these workers. This would be crucial for the discussion on the level of protection for these workers as well as for the discussion around whether digital platform employment leads to informalization or might be a tool towards formalization.

30. Ultimately, the exact type and scope of data required for policy purposes will vary from country to country. In the end it depends on the specific policy aims of the government and the types of policies that it wishes to implement. However, having access to the relevant data will facilitate a more evidence-based policy discussion and boost the efficacy of policies implemented.

4.   Current approaches in defining digital platform employment.

31. Several challenges in accessing comparable data on digital platform employment stem from differences in scope, definitions, sources, and methodology partly due to that in statistical terms, this topic is still a relatively new area for most national statistical offices. However, an important underlying reason for the multiplicity in concepts and definitions is also that the platform economy is a dynamic ecosystem with a high degree of diversity. It captures multiple different business models, includes very different types of services and goods, and therefore ranges over multiple and fundamentally different industries and occupations. The multiplicity and complexity of the digital platform economy creates a challenge when trying to provide a simplified statistical definition based on a few common criteria. This challenge, in combination with a lack of any international agreed standards has led to the existence of different terms, concepts, and definitions. In some cases, different terms are used interchangeably to describe the same phenomena while in others the same term might be used but with a different meaning, scope, and objective. This somewhat vague situation hampers the discussion of digital platform work, leading to the capture of different phenomena with a consequent inconsistency when comparing statistics produced in this area.

32. The concepts used in this paper namely digital platform work and the more restricted digital platform employment, or components of it, have previously been discussed under various terms, such as Internet-Mediated Platform Work (Castillo, 2019), the Sharing Economy (Sundararajan, 2016), and Electronically Mediated Employment (U.S. Bureau of Labor Statistics, 2017). At the 20th ICLS in 2018, the term Intermediated Platform Work was used in reference to discussions on digital platform work. This referred specifically to internet-mediated platforms, encompassing web-based digital labour platforms and location-based platforms from which work is allocated through software applications (ILO, 2018). As of 2018, 20 countries had measured such work or related concepts in the 5 preceding years. Crowd Employment was utilized by Eurofound to describe similar work up until 2018, when it was retired in accordance with its irrelevance to the many more types of tasks known to comprise platform work today (Eurofound, 2020). Electronically Mediated Employment was utilized by the U.S. Bureau of Labour Statistics in 2017 to describe short jobs or tasks that workers find through mobile apps, which connect them with customers and arrange payment for the tasks (U.S. Bureau of Labor Statistics, 2017). Given its rapidly evolving and considerably brief history, an internationally consistent term has not been adhered to for significant periods of time.

33. Digital platform workers have also been referred to by several other names. The term gig-worker is commonly used in several contexts today as an umbrella term which may still apply when used in discussions on digital platform workers. In Singapore, gig-worker refers to freelancers, own account workers, independent contractors, or service providers hired for their specific skills only when required. The term is utilized by the Inland Revenue Authority in classifying digital platform workers who fit the description (Inland Revenue Authority of Singapore, 2023). As recently as 2023, Eurostat's publication on employment statistics – digital platform workers utilised the following operational definition. A digital platform worker is defined as a person who has worked for pay or profit in tasks or activities organised through an internet platform or a phone app, for at least one hour in at least one week, during the reference period (Eurostat, 2023).

34. Digital platforms are known by a host of terms, such as platform businesses and online platforms which may also be used in colloquial discussions in relation to other contexts. These terms are often confused with forms of labour that may not fulfil more stringent criteria, such as those outlined by Eurofound in 2022 on digital

labour platforms. According to Eurofound, such a platform entails any natural or legal person providing a commercial service which is provided at some distance through electronic means, is provided at the request of a recipient of the service, and involves the organization of work performed by individuals, regardless of whether work is performed online or remotely. In contrast, terms such as online platform are utilized in reference to tools like social media, which do not mediate labour in the same way as defined by Eurofound.

4.1. A more common statistical language – the OECD-ILO-Eurostat handbook.

35. In 2023, the OECD established a joint working group with the ILO and Eurostat to produce a handbook on the measurement of digital platform employment; a first step towards addressing the need for a more comprehensive statistical framework including more harmonized terminology and definitions, as well as recommendations for measurement (OECD-ILO-Eurostat, 2023). The ILO's main contribution to the handbook was the provision of an outline for a statistical framework on digital platform work and digital platform employment, that can contribute to create more clarity around the different components of digital platform work and digital platform employment. These steps may then facilitate the discussions around this topic and create an increased transparency around the scope and objectives of the different attempts to measure digital platform employment, either partly or more comprehensively.

36. The proposed framework uses the concept of work as defined by the 19th ICLS resolution concerning statistics on work, employment, and labour underutilization (ILO, 2013) as a starting point. The scope of the framework is thus broadened beyond employment alone and creates the possibility that digital platform work can also include forms of work other than employment such as volunteer work or unpaid trainee work. Even though less focus has been given to these forms of work in relation to digital platforms, it might have high relevance in relation to statistics on volunteer work, or in relation to the use of unpaid work by digital platforms.

37. Based on the concept of work, digital platform work becomes all work that is carried out through or on a digital platform. In this regard, it is essential to demarcate a clear distinction between work that has been carried out through a digital platform, and persons who have been employed in the broader concept of the digital economy understood as enterprises that produce ICT goods and digital services, enterprises that rely entirely on digital technology to operate and in its most broad measure also enterprises whose production has been significantly enchanted by digital technologies and data (OECD, 2020). Employed persons in the digital economy would include all workers engaged by enterprises belonging to the digital economy, independently of whether these work activities are conducted through or on a digital platform; from this perspective, the essential feature is whether the economic unit is within the digital economy or not. From the point of view of digital platform work, however, the essential aspect is whether the work (paid or unpaid) is carried out through or on a digital platform. (OECD-ILO-Eurostat, 2023).

4.1.1. Defining a digital platform

38. An essential aspect when defining digital platform work is to define the components of a digital platform. The handbook broadly defines a digital platform as a digital interface or online service provider, positioned between the providers of the services or goods and the receivers. Digital platforms are also characterized by the

generation of economic or social value through network effects, providing a common set of integrated digital tools and services facilitating delivery of goods and services and process monitoring, controlling aspects of work carried out by providers through terms of service. The platform provides services that remain under the control of the economic unit, enabling the owner to exercise some degree of control and surveillance over the activities of production (OECD-ILO-Eurostat, 2023, p. 41).

39. A typology of different types of digital platforms is also provided (ILO, 2021, OECD-ILO-Eurostat, 2023). As can be seen in Figure 2, the typology separates between the following more general groups of digital platforms:
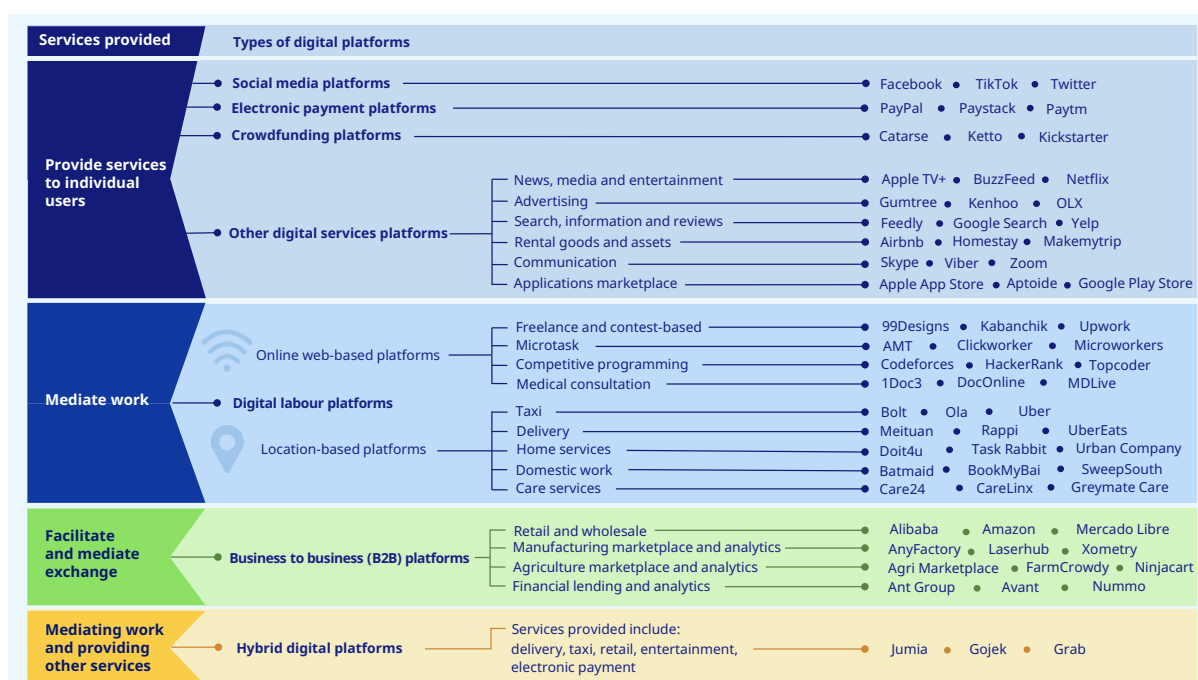

Figure 2. Landscape of Digital Platforms

Source: ILO, World Employment and Social Outlook: The role of digital labour platforms in transforming the world of work, https://www.ilo.org/global/research/global-reports/weso/2021/WCMS_771749/lang--en/index.htm.

40. *Digital platforms offering services to individual users* would include a broad range of digital platforms that provide different types of services to individuals and to other businesses such as different communication platforms for example Facebook, Teams or WhatsApp as well as music and film streaming platforms such as Netflix or Spotify and other payments and services provided by digital platforms.

41. *Digital labour platforms mediating work* are digital platforms that mediate services between individual providers (individual persons or business) and clients, either by acting as an intermediating entity or by directly engaging workers to provide the services. An important distinction of these digital platforms is between online-based platforms such as Clickworker or Freelancer where the work is carried out remotely and directly on the digital platform, and location-based platforms such as Uber or TaskRabbit where the work must be delivered/carried out in the same physical location as the client receiving the service.

42. *Digital platforms facilitating and mediating exchange between users* includes digital platforms that typically intermediate goods between for example micro-, small, and medium enterprises on one side, and final clients (other business or private persons), on the other. It would include platforms intermediating a broad range of goods for example Amazon or Alibaba as well as more specialized platforms such LaserHub that connect

suppliers with material processing industry or the Tao-factory, which operates mainly in garment and light industries.

43. *Hybrid digital platforms that mediate work and provide other services* are digital platforms that provides the intermediation of multiple services and goods that go across the above-mentioned categories and therefore cannot be considered in one single category of digital platform but rather aim at being more encompassing platforms. For example, Grab or Jumia provides services that includes a range of different services such as deliveries, taxi rides, financial services, payment, entertainment, and retail.

4.1.2. Digital platform employment

44. The proposed definition of digital platform employment provided in the OECD-ILO-Eurostat handbook is based on the component of employment, as defined by the 19th ICLS resolution concerning statistics on work, employment, and labour underutilization, that is carried out on or through a digital platform as previously described in chapter 4.1.1 However, an important additional element of control is added to the definition. The digital platform or mobile application should in addition, also control and/or organize "essential aspects of the activities, such as the access to clients, the evaluation of the activities carried out, the tools needed for conducting the work, the facilitation of payments, distribution and prioritization of the work to be conducted" for the work to be considered digital platform employment (OECD-ILO-Eurostat, 2023, p. 45).

45. Stressing the element of control in the definition ensures the exclusion of digital platforms that might be used as part of carrying out work, such as teams or google doc but where the digital platforms do not impact on the work or work relationship as such. The type of digital platforms excluded from the concept of digital platform employment could in this sense rather be viewed as electronic tools that are provided by a digital platform without any direct impact on how the work is managed. At the same time, as also described in the handbook (OECD-ILO-Eurostat, 2023, p. 45) the boundary between what is to be included or excluded can still be ambiguous in cases where some aspects might be controlled by the digital platform but where the control in general is very limited.

4.1.3. Component based framework.

46. The framework provided in the OECD-Eurostat-ILO handbook breaks down relevant layers in deciding the conceptual scope of digital platform employment, making it easier for data producers to focus on the components which hold relevance depending on their contextual requirements and objectives. This flexible, component-based approach is intended to contribute to a higher degree of transparency, by clearly outlining the components considered within a given measurement thereby avoiding a situation where the same concept/term is used to describe a different scope in the measurements or when different terms/concepts is used to describe the same component. It can therefore be viewed as an attempt to provide a harmonized statistical language in relation to digital platform employment that considers the different needs and objectives that might exist. The framework, see figure 3, recognizes five different potential layers:

    i.   **Type of work:** As an alignment to the 19th ICLS resolution concerning statistics on work, employment, and labour underutilization all forms of work could potentially be carried out through or on a digital platform and therefore be of relevance to measure. However, the focus in relation to labour statistics would typically be on work defined as employment.

    ii.   **Type of production:** Much of the attention in the different measurement attempts of digital platform employment has been focusing on the provision of services as the provision of goods might be linked to less labour input and due to the perception that platforms intermediating goods might exercise less

control over the labour input (OECD-ILO-Eurostat, 2023, p. 51). At the same time there are activities defined as employment also linked to the provision of goods through digital platforms. The distinction between goods and services therefore allows data producers to specify whether a given measurement of digital platform employment is intended to be comprehensive i.e., capture both services and goods, or focused on either services or goods only.

iii. **Type of digital platforms:** Conceptually digital platform employment would include all activities defined as employment that is carried through digital platforms that meet the criteria given in the definition of digital platform employment. However, there might be strong arguments to limit a given measurement to a specific type of digital platform for example to only focus on digital labour platform providing services. The generic types of digital platforms provided in the described typology of digital platforms is therefore an important description of the boundaries used in a specific measurement.

iv. **Type of status in employment, external and internal digital platform employment:** As much of the policy attention is focused on the status in employment category of persons carrying out digital platform work the status in employment category would be essential. It is likely that own-account workers and dependent contractor would be at the core of any measurement of digital platform employment. However, with the changes in some countries, in the legal status of persons carrying out digital platform employment it might be of increasing relevance to also include employees of the digital platform that carry out their work on or through the digital platform. This distinction is captured in the proposed framework by the distinction between *external digital platform employment* (own-account workers, dependent contractors and potentially employers) and *internal digital platform employment* (employees to the digital platform).

▶ Figure 3. Relevant layers to decide the conceptual scope

47. The component-based framework as proposed in the OECD-Eurostat-ILO handbook is an important step forward as it outlines the different components or layers of digital platform employment, thus allowing data producers to either focus on a comprehensive measurement or some specific component(s) while ensuring statistical transparency. At the same time there is a need for further discussions around whether the proposed layers are sufficient for the needs to provide data on digital platform employment or if there is a need to further adapt the framework. As further described in chapter 6 this could include aspects such as the degree of control exercised by the digital platform or/and the distinction between online digital platforms and on-location digital platforms or other relevant layers that might be used for creating boundaries for a given measurement and therefore should form part of the framework to ensure transparency between different measurements and for

enabling the potential development of different methodologies depending on the specific component(s) being measured.

5. Experiences from measuring the different components of digital platform employment

48. Presently only a few countries have expended efforts in measuring the components of digital platform employment and even less has been done in relation to trying to estimate forms of work other than employment carried out on or through digital platforms. Additionally, countries that have attempted to measure digital platform employment are predominantly middle to upper-income countries, and thus information from lower-income countries is not currently represented to a sufficient degree. Efforts to study this phenomenon are also recent, with most countries beginning in the latter half of the past decade. The current measurement attempts can therefore not be described as established methodologies but rather classified as experimental aiming at providing insights on different aspects of digital platform employment and to gain experience of how this can and cannot be measured and the challenges and possibilities inherent in measuring digital platform employment using different statical sources. The following chapter is not intended to provide a comprehensive description of the different measurement attempts but rather highlighting methodological challenges and differences based on the experience gained so far, that might be of importance to address as part of future work.

5.1. Measurement through surveys

49. Surveys as vehicles for measuring digital platform employment have been essential to provide statistics on different aspects of digital platform employment. They have clear advantage compared to other statistical sources such as administrative data or big data, as they allow the data producer to design the questions to include and thereby ensure that statistical definitions are met, and that the data of interest are collected. This section discusses the use of surveys with representative samples such as labour force surveys, in which a set of questions have been added to capture digital platform employment, as well as the use of specialized surveys which directly target individuals that have carried out digital platform work.

5.1.1. Household surveys

50. Household surveys with a representative sample such as labour force surveys have increasingly been used as a vehicle to collect data on digital platform employment. For example, in 2022 Eurostat has conducted large scale pilots on the measurement of digital platform employment with the objective to develop a module to be attached in all EU labour force surveys in 2026. A characteristic of labour force surveys is that they have a representative sample of the working age population, which creates the possibility to measure the prevalence of digital platform employment in the population. Labour force surveys have the advantage that they typically have a relatively large sample compared to other alternatives, and are surveys designed to collect detailed labour statistics. A labour force survey would already cover relevant areas such as occupation, industry, working time, characteristics of the job etc. which is also highly useful for analysing digital platform employment.

51. However, evidence in some settings points at that digital platform employment to some extent might be done infrequent and as secondary activity making it less likely to be identified in surveys which focus most of their questions on the main job in a specific reference week. This also hampers the possibility to use the job-related information already collected as this information is typically less extensive in relation to second jobs and additional jobs (third jobs and so on) is typically not covered. In addition, the relatively low general prevalence of digital platform employment in countries might further limit the possibilities to derive robust estimates by

the use of labour force surveys might be limited and dissemination by, for example, demographic characteristics, socioeconomic characteristics or other relevant information might be challenging due to that digital platform workers could constitute a relatively small subgroup of the employed population.

52. Even if labour force surveys would be a likely source to generate statistics on digital platform employment there might be alternative household surveys that also could be relevant. For example, surveys collecting data on the use of technology, internet etc. such as the EU ICT survey[2] could also be a natural vehicle for collecting data on digital platform employment. While these types of surveys might typically have a smaller sample than labour force surveys, they are designed to collect data on the use of ICT and therefore provide a relevant context to include questions capturing the consumption of goods and services through digital platforms and potentially the provision of goods and services through or on digital platforms.

5.1.2. Specialized surveys

53. Beyond the integration of digital platform employment into pre-existing questionnaires such as the labour force survey, specialized surveys have also been conducted to examine this phenomenon with a closer lens. While the samples of such surveys are not representative of the entire population, they provide essential insights into certain groups of people or specific types of digital platform employment. Typically, the specialized survey would target a particular type of digital platform employment such as taxi or private-hire drivers using a specified platform, or care workers whose clients are intermediated by a platform. Different innovative strategies have been used for creating the sample consisting of the target persons, partly because there is a lack of official statistical information on the numbers and characteristics of platform workers, and thus there is no sampling base from which a random sample can be drawn (ILO, 2021). As a result, the 2021 WESO report as produced by the ILO outlined specific parameters for its survey respondents, such as engagement in microtasks, freelance and competitive programming platforms, and country-specific parameters for workers on online web-based platforms in China and Ukraine. Within the same report, samples were also taken with a focus on the app-based taxi sector in 9 countries, and the app-based delivery sector in 11 countries, collecting relevant information where most applicable. Other specialized surveys could also involve getting access to the registered users of a digital platform and asking them to participate in the survey, or in collaboration with the platform where the survey questions are integrated into the platform's user interface.

54. The main advantage with these types of specialized surveys is that the samples consist of the target population. This creates the possibility to include detailed questions enabling an in-depth analysis of certain groups of people, such as those with vulnerabilities requiring additional assistance (Dewan, 2022) or a specific type of digital employment such as digitally enabled care work (Mandel, 2022) or the impact of policies regulating platform work on migrant workers (De Leo & Grossi, 2023) while achieving relatively robust estimates. The obvious disadvantage with specialized surveys with target sample is the lack of representativeness. It cannot provide estimates on the prevalence of digital platform employment within the working age population. In addition, there might be challenges with creating representativeness within the target group as information about the characteristics of non-response might be missing.

5.1.3. Identifying digital platform employment in surveys

55. The focus so far in the different attempts of measuring digital platform employment in surveys has been to develop strategies for how to identify persons that are carrying out employment on or through digital

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[2] For more information regarding the EU ICT survey see: https://ec.europa.eu/eurostat/cache/metadata/en/isoc_i_esms.htm

platforms. This is of particular importance when surveys with a representative sample are used. The correct identification of those that have been conducting activities on or through a digital platform is a fundamental first step for being able to collect information on this group and for providing statistics on their characteristics. In relation to digital platform employment however, this has been shown to be particularly challenging due to that respondents might not be aware of the concept of "digital platforms" or have a different understanding of it compared to any statistical definition. There is a risk of false negatives, as respondents might not be identified as having carried out any employment on or through digital platforms even if this is the case. This might be due to a misunderstanding of the question, or that the respondent might not recall having done the work due to that it was just a sporadic activity of few hours. On the other hand, there is also a risk for false positives that is when respondents are identified as having carried out digital platform employment even though this is not the case: for example, when a person is identified as having carried out digital platform work because they have had online meetings through Teams or Zoom or due to that they have used a valid digital platform as a consumer of the service or good without having carried out work on or through the digital platform. The strategy of how to identify digital platform employment, the approach, and the questions to use and their formulation, therefore becomes essential, independent of the specific definition used or the boundaries of a given measurement. The challenge with finding an effective strategy with a reasonable response burden is highlighted by the range of different approaches that have been used by countries.

56. Certain countries have chosen to use a minimalistic approach, where only one question or a set of only a few questions are used to screen digital platform workers. This method is typically advantageous in reducing respondent strain, by keeping questionnaires brief. One such example from the U.S. Bureau of Labour Statistics (US-BLS) utilized only 2 questions and then two additional questions to link the activity to the main or secondary job, listed below for easy reference.

Some people find short, IN-PERSON tasks or jobs through companies that connect them directly with customers using a website or mobile app. These companies also coordinate payment for the service through the app or website. For example, using your own car to drive people from one place to another, delivering something, or doing someone's household tasks or errands.

 a. Does this describe ANY work (you/NAME) did LAST WEEK?
 b. Was that for (your/NAME's) (job/(main job, (your/NAME's) second job)) or (other) additional work for pay?

Some people select short, ONLINE tasks or projects through companies that maintain lists that are accessed through an app or a website. These tasks are done entirely online, and the companies coordinate payment for the work. For example, data entry, translating text, web or software development, or graphic design.

 c. Does this describe ANY work (you/NAME) did LAST WEEK?
 d. Q2a Was that for (your/NAME's) (job/(main job, (your/NAME's) second job)) or (other) additional work for pay?

<div align="right">Source: Contingent Worker Supplement (Bureau of Labor Statistics, 2018)</div>

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57. While this restricted approach appears to come with a much lighter respondent load, the US-BLS encountered several issues with this approach. Respondents were found to have interpreted the questions too broadly, due to the widespread use of applications, websites, and computers by people in all types of work. A similar result was corroborated by the LFS of Denmark, which only asked 1 question whether respondents earned money by "performing work done through websites or apps" (Ilsøe & Madsen, 2017). While simple and straightforward for the respondent, concerns have been raised about whether the question is able to convey a clear understanding of digital platform employment (OECD-ILO-Eurostat, 2023).

58. Conversely, others have chosen to go with a detailed approach, in which multiple screening questions are used to determine the existence of digital platform work. The COLLEEM survey conducted by the European Commission collects information on the frequency of and hours spent on digital platform work through a comprehensive and relatively lengthy set of questions. These are advantageous in their collection of details related to a broad range of potential digital platform work activities, potentially capturing incidences of work which may otherwise be missed due to brevity of questionnaire or respondent misunderstanding. From the COLLEEM pilot conducted in 2022, 13 questions are focused on collecting information on types of services and work conducted for pay or profit in the preceding 12 months The example from Eurostat is listed below, illustrating the thoroughness of measurement.

In the last 12 months, did you use an Internet Platform or App for phones or tablets to carry out any of the following services or work for pay or profit?

    a. Taxi services, using for example XX or YY?
    b. Renting out a room, a house, or any accommodation, using for example XX or YY?
    c. Selling (or advertise for sale) any good, using for example XX or YY?
    d. Cleaning or handiwork, including plumbing, electrician works or similar, using for example XX or YY?
    e. Child or elderly care, such as baby-sitting and shopping for elderly people, using for example XX or YY?
    f. Tutorials or teaching, using for example XX or YY?
    g. Online support or checks for online content, using for example XX or YY?
    h. Creating contents such as videos or texts, using for example XX or YY?

Source: (Eurostat, 2021)

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59. It is possible to fuse the advantages from both the minimal and detailed screening approaches, as demonstrated by the approach used by Chile. In the National Employment Survey of Chile, respondents in employment were asked whether they used a mobile app or a web platform as part of their work. If answering yes, they were asked to provide the name on the platform. The answers were then matched to a pre-defined list of digital platforms that were considered within the boundary as well as digital platforms outside the boundary of the measurement. If a match with a pre-defined digital platform within the boundary, then the respondent is defined as carrying out digital platform employment. If the given name was not on the pre-defined list the name was recorded and processed after the interview. The pre-defined list was continuously updated with names of relevant digital platforms stated by the respondents that were not already on the list. As the more comprehensive matching was done after the interviews were conducted, the target population was persons initially identified as employed in the survey. In addition, it has the limitation that it is not possible to add additional questions targeting those in digital platform employment as these are first comprehensively identified after the interview have been conducted. The latter could potentially be addressed by targeting the additional questions to all persons (including false positives) that have been identified in the first screening question. While this would increase the response burden it would potentially broaden the measurement to include the total population. In addition, there would be a need to limit the number of non-responses including don't knows or/and develop a strategy for how to effectively deal with these cases as it otherwise would not be possible to determine whether the person have carried out digital platform employment or not. The current limitations could also potentially be addressed by further methodological development that for example combine a list approach with screening questions in case the name given is not on the pre-defined list. This would potentially enable expanding the target group to the total population as well as creating the possibility to also include specific additional questions for those identified as carrying out digital platform employment.

60. Amongst measurement experiences collected thus far, the misunderstanding of provided definitions by respondents is widespread and remains an obstacle to robust measurement. As seen in experiences shared by national statistical organizations such as those from Canada and the U.S., the public understanding of digital

platform employment generally remains rudimentary. When elaborate and specific definitions relating to digital platform employment were provided in questionnaires, respondent fatigue emerged, or respondents misinterpreted the intended meaning of questions, leading to false positives and negatives. Similarly, experiences through the COLLEEM survey have shown that a question aimed at determining whether respondents provided services through digital labour platforms necessitated a complex question, leading to poor comprehension amongst respondents and reports of respondent fatigue.

5.1.4. Operational decisions

61. Persons in employment as defined by the 19th ICLS resolution concerning statistics on work, employment, and labour underutilization, constitutes of "all those of working age who, during a short reference period, were engaged in any activity to produce goods or provide services for pay or profit" (ILO, 2013 para 27). In relation to the measurement of employment this is operationalized as including all persons that have carried out at least one hour of work with the intention to generate an income or profit in the reference period, and persons temporarily absent from a job. The reference period in labour force surveys would typically be a reference week. While some of the measurement attempts of digital platform employment build on the operational components provided by the 19th ICLS resolution I, others might slightly deviate by for example using a longer reference period or using the aspect of whether income have been received rather than whether activities intended to generate an income or profit have been carried out. These deviations are linked to the challenges that lies within measuring digital platform employment due to its low prevalence and cognitive challenges among the respondents. These operational decisions do however have conceptual consequences, such as differences in boundaries and scope, as well methodological implications such as the indicators that can be produced and the design of the questions.

5.1.4.1. Reference period

62. Across different regions and countries, chosen lengths of reference periods have varied from the standard form of a given reference week, to much longer periods of up to 12 months or more. While chosen reference periods within this spectrum each come with unique advantages and limitations, differences in reference periods impact on the possibilities to compare data between countries and the indicators to be produced.

63. As employment is defined within a short reference period, typically a reference week, one approach to measuring digital platform employment is similarly to collect information on those who have engaged in such work during the specified reference week. This method is advantageous in that it aligns closely with the definition of employment, thus allowing for the production of indicators on the prevalence of digital platform employment which may be presented as a share of the total pool of employed individuals. For instance, the U.S. Bureau of Labour Statistics (US-BLS) included specialized questions on digital platform employment in the Current Population Survey, in which individuals were instructed only to report on relevant digital platform activities performed in the week preceding the survey.

64. Conversely, owing to the transient and often unscheduled nature of digital platform employment, statisticians may find that shorter reference periods have the potential to miss out on capturing some incidences of occurrence. A longer reference period could from that perspective be viewed as beneficial in the sense that more sporadic cases may be collected, and a greater total number of workers may be identified, thus increasing the possibility of describing the characteristics of digital platform workers in greater detail. Experiences from the Swiss Federal Statistical Office and Singapore Manpower Research and Statistics Department have affirmed the advantages of longer reference periods with adjustments made based on the national context. The potentially sporadic nature of digital platform and that it to some extent is carried out as secondary activities

might lessen the chances of identifying digital platform employment in surveys focusing on the main job using a short reference period. This might create underreporting as well as creating a too small sample of persons carrying out digital platform employment to create statistically significant estimates particular if the aim is to further disaggregate the data. An issue that could be especially challenging in countries with a lower total sample.

65. It should be cautioned that longer reference periods are accompanied by recollection issues, where individuals may not accurately remember or register sporadic instances of digital platform work, thus leading to inaccuracies in the final data. It should also be noted that longer reference periods may give rise to different challenges and inconsistencies, such as duplicated collection and a possible deviation from the recognized definition of employment. In Singapore, measurement experiences found that when a reference period of 12 months is followed, certain individuals report performing digital platform work on a regular scheduled basis. The survey is thus able to highlight individuals with a higher work commitment to employment activities carried out through digital platforms.

66. Ultimately, statisticians may not have to choose between shorter or longer reference periods because each method achieves a different objective, and because a hybridized form of both methods may be utilized to leverage on both sets of advantages. For example, Eurostat achieves this by first capturing digital platform workers through a broader scope, in which respondents indicate whether they have performed any relevant digital platform work in the 12 preceding months (Eurostat, 2021). If respondents indicate yes, then a separate set of questions is used to follow up and determine if any relevant work was done in the last month. In this instance, a greater total number of workers may be identified and potentially provide more information on the characteristics of digital platform work, while the final data aligns closely with the standard definition of employment and allows for comparison against the total pool of employed individuals.

5.1.4.2. Activity based versus income based.

67. In identifying and quantifying digital platform work, countries have chosen to either base the measurements on an activity-based approach, or an income-based approach. In the former, respondents would be asked about whether services or goods have been provided on or through digital platforms in a given reference period, while in the latter, respondents would be asked to provide information on any income received from digital platform employment in the given reference period. Both approaches come with different benefits and drawbacks.

68. With the activity-based approach, in which respondents are asked in relation to any activities carried out for providing goods or services on or through digital platforms, the data produced aligns closely with the standard definition of employment. This means the data is comparable with other statistics produced on the concept of employment and is therefore useful in more contexts than one. Several regions and countries have chosen to use this approach, with the focus on employment activities performed with the intention to generate income and profit. An example from the Eurostat pilot survey 2022 in which respondents are asked about specific completed activities is as follows.

In the last 12 months, did you use an Internet Platform or App for phones or tablets to carry out any of the following services or work for pay or profit:

  a. Taxi services, using for example XX or YY?
  b. Delivery of food or any other goods, using for example XX or YY?
  c. Renting out a room, a house, or any accommodation, using for example XX or YY?
     (If yes) Did you spend any time on providing accommodation services, such as cleaning or advertising the rented premises, catering for tenants, etc.?
  d. Selling (or advertising for sale) any good, using for example XX or YY?
     (If yes) Did you collect, buy or produce specifically some of these goods to sell them?
  e. Cleaning or handiwork, including plumbing, electrician works or similar, using for example XX or YY
  f. Child or elderly care, such as baby-sitting, shopping for elderly people, using for example XX or YY?
  g. Medical and health care services, using for example XX or YY?
  h. Tutorials or teaching, using for example XX or YY?
  i. Translation, using for example XX or YY?
  j. IT services, such as programming, coding, web or graphic design, data or text entry or editing, using for example XX or YY?
  k. Online support or checks for online content, using for example XX or YY?
  l. Creating contents such as videos or texts, using for example XX or YY?
  m. Other services or work

  (For each identified type of digital platform: *What is the name of all Platforms and Apps you used to...?)*

Source: (Eurostat, 2021)

69. For the income-based approach, respondents may find it easier to provide accurate income information even if they may not remember the exact activities carried out. Income data may also inform statisticians about workers' reliance on digital platform work as a main or supplementary source of income.

70. In the Canadian Internet Use Survey of 2020, respondents were asked if they had utilized the internet to earn any income within 12 months preceding the survey. The question was asked in relation to different types of activities within the set boundaries of digital platform employment as follows:

The following question is about money that you personally earned online in the past 12 months. Please remember that your answers will be kept strictly confidential. During the past 12 months, how much did you personally earn by doing the following activities online?

Min = 0; Max = 99999999

  n. Selling physical goods online that you built or created
  o. Selling services via online bulletin boards
  p. Providing platform-based peer-to-peer accommodation services
  q. Providing platform-based peer-to-peer ride and delivery services
  r. Providing other platform-based peer-to-peer services
  s. Online freelancing
  t. Crowd-based microwork
  u. Earning income through online advertisements and sponsored content
  v. Other activities

Source: (Canadian Internet Use Survey, 2020))

71. Like Canada, Finland has also utilized the income approach since 2017 via the LFS, to estimate the number of people who had earned an income through digital platforms in the preceding year. This method was able to provide information that of the 8% of the population who have gained income from online platforms in the past 12 months, 0.3% of these individuals earned at least 25% of their income from digital platforms, with a caveat that the survey question referred to a limited number of specific digital platforms only (Statistics Finland, 2017). This experience also proved that respondents did not thoroughly understand what constituted digital platform employment, or income earned through such employment (Sutela, 2018).

72. While useful, the income approach is not without its disadvantages. Income deviates from the definitions of employment when work is performed for pay or profit, but the profit does not necessary align with the work performed, particularly if a shorter reference period is used. A person might carry out an activity in the reference period e.g., reference week, but receive payment for example the month after or conversely might receive the income in the reference period but have previously carried out the work. This is the that the income approach typically is combined with a longer reference period such as 12 months which reduces this potential mismatch. The income approach can also leave out those who have performed work for pay or profit, but who did not obtain income eventually. While there are conceptual differences between the two approaches. in practice it is likely nonetheless that the activity-based approach and the income approach would achieve a high overlap – particularly for those groups that carry out a significant amount of digital platform employment.

5.1.4.3. Surveying employed persons only, or expanding the scope beyond.

73. Household surveys, like labour force surveys, aim to identify individuals who are employed during the reference period. Consequently, it is logical to restrict the identification of digital platform employment among the employed population only, to streamline the process and reduce the number of screening questions. This approach, employed by the US-BLS and INE Chile, offers the advantage of easily linking digital platform employment to the main or second job, utilizing the information collected for describing such employment.

74. However, this approach requires using the same reference period as employment measurement, limiting the option of employing longer reference periods. Moreover, restricting the identification of digital platform employment to employed individuals only might underestimate its prevalence. This is because sporadic activities of short duration may not be picked up by the screening questions used for identifying employment or may pose challenges in more specially recalling and recognizing digital platform employment. Additionally, situations where digital platform activities serve as a third activity would also be overlooked as labour force surveys typically are restricted to main jobs and second jobs only, although this would likely have a lesser impact.

75. As an alternative approach, recommended by the US-BLS and tested by for example Eurostat and Switzerland, it is suggested to expand the scope to the entire population. This means identifying digital platform employment among the employed, unemployed, and those outside the labour force. This broader approach could potentially address the challenges associated with identifying all digital platform employment through standard screening questions used for employment identification. It would also allow for the incorporation of multiple reference periods, if applicable.

5.2. Measurement through big data web scraping.

76. While still a relatively new method, big data web scraping has been used in experimental measurement of digital platform employment. This method allows for relatively easier access to relevant information for

analysis, as it utilises publicly accessible data to draw conclusions, and thus data may be retrieved with a shorter turnaround time than traditional sources like labour force surveys. For the 2021 World Employment and Social Outlook (WESO) report by the ILO, data was obtained from the online interface of five freelance and contest-based platforms. The study was able to tabulate the number of registered and active workers on selected digital platforms, as well as estimate earnings by number of projects completed, and provide estimations on the oversupply of workers by percentage of all those registered (ILO, 2021).

77. Although this method is not without its merits, the study also found various inconsistencies in the data across platforms, leading to concerns about using this data for comparison. As the proportion of active workers on each platform was ascertained using different criteria, such as through the number of completed projects or by the income earned since registration on the platform, large differences in the proportion of active users on various platforms emerged. The different approaches and strategies used by the platforms make it difficult to determine reliable estimates of workers, and the use of proxies in place of exact information compounds the issue of information unreliability. As the estimates is based on a limited set of digital platforms these would not be representative of the total population of persons carrying out digital platform employment. Despite these shortcomings, estimates such as earnings or tasks completed would still have a high value if produced not at least to complement data produced by surveys on for example the number of persons carrying out digital platform employment.

5.3. Measurement through administrative data sources.

78. Administrative data sources may be an important source to provide statistics relating to digital platform employment particularly to estimate the labour input on digital platform employment. This method of measurement may have a lower time and cost requirement than the other methods and has the potential to fill in informational gaps not currently covered by surveys. However, it is not always comprehensive and may not draw from adequately representative samples. It is also difficult to compare such information across different countries.

79. Where available, administrative data sources such as tax records may be valuable when information on operational platforms within the country, information on registered platforms, or information on individuals who work through the platform are present in the tax records as well. These sources are not without limitations and boundary issues, such as the difficulty in categorizing cross-border platforms, and the strong reliance of tax records on national legislation, without which it will not be a feasible approach. The usage of administrative data sources would also prove limited when attempting to make international comparisons, as the parameters of national records may vary drastically from country to country. Countries which have made data on digital platforms available through tax records include Belgium, for which legislation has defined a specific tax regime since 2016. This has enabled the Belgian statistical office Statbel to utilize information on the tax situation of individual workers in digital platform employment, to produce experimental statistics on the number of platform workers and their earnings. While the introduction of digital platform-specific legislation would increase the production of data in this area, such methods may be limited in the sense of underestimating the numbers of platform workers and on the total income generated by the platforms, as not all informal work arrangements are covered or captured by tax records or the activities might not be registered as being linked to digital platform employment for example if an independent worker or dependent contractor is responsible for their own tax return.

80. At the same time administrative data based on for example tax registers can be a valuable source to provide estimates on the labour input related to digital platform employment in countries characterized by a low degree of informality and that have comprehensive registers accessible. Similar as with big data web scraping estimates on earnings received, tasks completed, or number of registered active digital platform providers

could still be relevant to reflect the size and development of the labour input in countries and would potentially be an important complement to statistics generated by other statistical sources.

6.   Towards a formal set of statistical guidelines on digital platform employment

81. Although countries and agencies have made progress in both conceptual and methodological aspects, it is evident that additional efforts are required to enhance countries' capacity to provide comparable data on various dimensions of digital work and employment. The urgent policy demand for such data emphasizes the significance of these endeavours. It would be crucial to leverage the existing advancements as a foundation and concentrate on further clarifying and expanding the conceptual framework, as well as improving and strengthening the methodological recommendations for measuring digital platform work and employment through diverse statistical sources. The conceptual and methodological development should progress in parallel, mutually influencing each other. Ultimately, it is imperative that any statistical guidelines concerning digital platform work and employment remain relevant across countries with distinct settings and policy objectives, while also considering the feasibility of measurement given the available resources and statistical sources.

6.1.   A future statistical framework

82. A formal set of statistical guidelines should be built upon a solid conceptual framework that provides statistical definitions for digital platform work and its various components. The framework presented in the Handbook of Measuring Informal Work and Employment, developed by the OECD-ILO-Eurostat task force, serves as a valuable starting point for the development of such guidelines. As discussed in Chapter 4, this framework adopts a component-based approach, allowing countries to measure different aspects of digital platform work and employment based on their specific policy objectives. This flexibility is pragmatic, considering the diverse data requirements of policymakers and the likelihood of utilizing different statistical sources for measurement purposes. By employing a component-based framework, transparency and comparability are ensured, regardless of the specific scope and boundaries of a given measurement. Moreover, the framework's alignment with the latest international statistical labour standards, including the 19th ICLS resolution on statistics of work, employment, and labour underutilization, and the 20th ICLS resolution on statistics of work relationships, positions it to be part of a coherent set of statistical standards.

83. While the framework presented in the OECD-ILO-Eurostat handbook offers a valuable starting point, it is crucial to engage in comprehensive discussions to further refine its definitions and components. These discussions should reflect the needs and perspectives of countries from different regions and contexts, as well as the requirements of social partners. A process following the tripartite structure of the ILO, with statistical experts representing all regions, would ensure the development of outcomes with global relevance, capable of reflecting different country contexts.

84. These discussions should address fundamental issues, including the definition of digital platforms, digital platform work and employment, and the relevant dimensions and components within their boundaries. Additionally, aspects such as additional characteristics associated with digital platform work and employment, which are significant for statistical identification, should be considered, taken into account policy discussions and needs.

### 6.1.1.   Defining digital platform work and employment

85. The OECD-ILO-Eurostat handbook adopts a comprehensive approach to defining digital platforms but employs a narrower definition when it comes to digital platforms relevant to digital platform work and employment. This narrower definition emphasizes the element of control as a crucial factor in determining the inclusion of digital platforms. The element of control as part of the definition is essential as it creates a more restricted boundary of the digital platforms relevant for measuring digital platform employment. It thereby excludes digital platforms that rather can be viewed as part of digitalization aiming at facilitating certain specific aspects of the work, such as Teams, or Zoom which are communication platforms but where the digital platform does not impact on the work carried out at the digital platform. Another example is platforms with a pure marketplace structure such as Craigslist, where goods or services are intermediated, but where the digital platform does not actively exercise any control over access to clients, price setting, etc.

86. While it might seem relatively clear that the definition provided in the OECD-ILO-Eurostat handbook excludes these types of digital platforms and includes digital platforms that exercise a higher degree of control – for example using algorithmic management, automatic matching of the clients and integral payment and ratings system– the boundary is not entirely clear and there will be ambiguous situations, which is also acknowledged in the handbook. An example cited in the handbook is Doctolib, which offers technical solutions to help doctors organize their work through a digital platform, including online payment options for consultations. However, the platform does not directly match doctors with patients or provide rating systems for services. Doctors can also arrange physical consultations outside the platform, in which case payment would not occur through the digital platform. Based on the definition of digital platform employment, one could argue that the work carried out by doctors on Doctolib should be excluded due to the limited control exercised. Conversely, it could be included because even though the level of control is reduced, there is still an element of control present, such as the ability to make payments through the digital platform and the existence of a service agreement regulating the doctors' services (OECD-ILO-Eurostat, 2023, p. 12). This example highlights the challenge of defining digital platform employment and establishing clear boundaries for its scope.

87. This issue has been a major challenge in the statistical work conducted thus far in this field, leading to diverse approaches in determining what to measure and how to measure it. Addressing this matter is therefore essential to ensure the development of consistent and comparable statistics on digital platform work and employment. Various approaches can be considered to tackle this fundamental issue that can range from using a more general definition with broad outer boundaries to a stricter and more detailed definition with narrower outer boundaries:

    i. **Broad boundaries:** One approach could involve striving towards a broad, inclusive definition that encompasses a wide range of digital platforms. While such a definition would still exclude platforms like Teams or Zoom that have minimal control over work, it would potentially encompass platforms that exercise some degree of control, albeit limited.

    ii. **Stricter boundaries:** Alternatively, a more precise definition could be employed, clearly delineating the specific types of digital platforms to be included or excluded in the measurement of digital platform work and employment and where the digital platforms more clearly impact on the activities carried out. This strict definition would establish explicit boundaries for inclusion, ensuring a more precise identification of the digital platforms relevant for measuring digital platform employment.

88. Independent on the scope of the outer boundaries it would be important to identify the different components within digital platform employment thus ensuring a flexibility within the framework and by that allowing countries to focus on those deemed relevant based on specific measurement objectives.

6.1.2. The different components and layers

89. The framework outlined in the OECD-ILO-Eurostat handbook revolves around the core components or layers that constitute digital platform work and employment. These layers encompass various aspects, such as different types of work, whether it is the provision of goods or services, the different types of digital platforms, and the status in employment category. The inclusion of these layers offers flexibility while maintaining transparency in the measurement process. However, further deliberation is necessary to determine whether these layers are comprehensive enough and sufficiently relevant for capturing data on digital platform employment. It would also be crucial to assess if additional aspects, such as the level of control exerted by digital platforms and the distinction between online and on-location platforms, should be incorporated into the framework to establish clearer boundaries and increased possibilities to focus on the component relevant for a given measurement.

6.1.2.1. Aspect of control

90. The potential control exercised by digital platforms is an important reason for much of the policy interest around digital platform employment. As discussed in relation to the definition of digital platform work and employment the aspect of control can be a distinguishing factor in the types of digital platforms that would be relevant to include as part of the measurement and the digital platform to exclude. The extent of control exercised by digital platforms differs, however, substantially between different digital platforms. Eurofound classified different types of digital labour platforms providing services on a spectrum ranging from digital labour platforms more closely acting as a market space where demand and supply meet, towards more hierarchical structures where the digital labour platform exercises command and control over the persons carrying out the services (Eurofound, 2019).
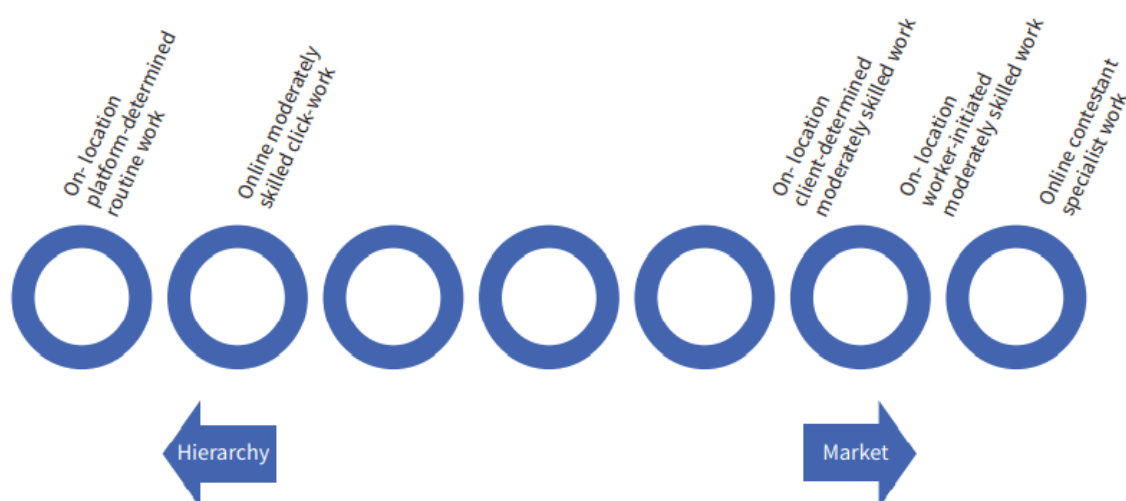
Source (Eurofound, 2019)

91. The control exercised by digital platforms also constitutes the core in the proposed EU-directive on digital platform employment. The proposed directive separates between five different expressions of control which would indicate a hierarchical structure between the digital platform and the person carrying out the services on or through the digital platform (European Commission, 2021). This includes when the digital platform:

- determines the price of the services or sets upper limits for the remuneration.

- supervises the performance of the work closely using electronic means.

- has restrictions on working hours such as when to work or period of absences, around the acceptance and refusals of tasks or for using subcontractors or substitutes to perform the work on the behalf of the person carrying out the service.

- sets binding rules for appearance and conduct in relation to the receiver of the service or performance of the work.

- restricts the possibility to perform the work for a different party or to build up a personal client base.

92. From the point of view of a statistical framework on digital platform work and employment, the objective of integrating the dimension of control would be that it could contribute to provide a more diverse picture of digital platforms and digital platform employment capturing the heterogeneity that characterizes digital platform work and employment. The aspect of control exercised by digital platforms is closely linked to several key policy discussions such as the autonomy of the persons carrying out digital platform work and employment, the impact on the work relationships, working conditions and the quality of the employment carried out on or through digital platform. It would therefore be important to integrate the aspect of control within a framework of digital platform work and employment. This could include an attempt to provide a categorization of different forms and degrees of control exercised by digital platforms. Such data could have a high relevance for policy makers but also contribute to clarify the boundary of the type of digital platforms to include in the measurement, as it would enable an identification and exclusion of digital platforms that are closer to digital marketplaces and therefore do not directly impact the work carried out on or through the digital platform.

6.1.2.2. On-line versus on-location digital platform work

93. The distinction between on-line digital platform work – where the work can be performed exclusively online by the use of digital tools provided by the digital platform, and on-location digital platform work – where the work activities are carried out in the physical world, is an essential characteristic of digital platform work that influences the business models of the digital platforms as well as the work activities carried out (ILO, 2022). The separation is particularly relevant in relation to the provision of services on or through digital platforms. On-line digital platforms are like global marketplaces which facilitate and match the providers and the receivers of the services on a potentially global scale. Services such as software design, image review or microtasks can be provided by different providers in different countries to multiple receivers located in yet other countries. However, on-location digital platform work would include activities that have to be carried out in the same location as the receiver. The delivery of goods, domestic work or different home services need to be carried out in broadly the same location as the person that receives the service. The difference between the two general types of digital platform employment impacts on how the digital platforms must interact with local labour markets and on the characteristics of the work and working conditions (ILO, 2022; ILO, 2021).

94. The distinction between on-line and on-location digital platform work would mainly have relevance in relation to the provision of services. The provision of goods through digital platforms would in a sense constitute a third category as they share characteristics with both on-line and on-location digital platform employment. Like on-line digital platforms, digital platforms that intermediate goods between providers and receiver have the potential to act as global marketplaces where both the providers and the receivers of the goods might be in different parts of the world. The main distinction is that the production of goods, and the work associated with acting as a retailer is not carried out on the digital platform but in the physical place of the entity i.e., producer, retailer or similar.

95. Even though the distinction between on-line and on-location digital platform work would mainly have relevance for the provision of services on or through digital platforms, this distinction or dimension could be of importance to integrate in a future statistical framework on digital platform work. As previously described, there would be a policy need to provide data on the provision of services through digital platform employment on respectively on-line and on-location digital platforms. In addition, it could also be of relevance to focus on a given measurement targeting on-line or on-location digital platform work only. Integrating this dimension could thereby be an additional component that can increase the flexibility for countries and other data producers to create the specific boundaries of the type of digital platform work that might be of relevance to target in the measurement.

6.1.2.3. Reliance/intensity

96. From the point of view of defining employment, the number of hours worked do not as such impact on the definition if the person has worked for at least one hour for pay or profit in a short reference period. Once this threshold is reached the person would have a job and all activities conducted in relation to that job would be regarded as employment. In relation to digital platform work and employment however, this categorisation becomes more difficult as some activities might be carried out in relation to a job on or through a digital platform, while others might not. A person could be carrying out graphic design projects on a digital platform and be providing the same service for clients that the person has found directly. In relation to selling goods, a person might have their own client base, but in addition is using a digital platform to get a wider outreach. Essentially, in relation to holding a specific job, a person might carry out what could be considered digital platform employment but concurrently be carrying out employment activities of a similar or different nature that is not linked to a digital platform.

97. The low threshold of one hour in the reference period for defining employment can create different situations with different conceptual consequences. A person might carry out digital platform employment sporadic and for just a few sets of hours but where all activities (even if few) are conducted on or through a digital platform. For example, someone who occasionally buy used goods to resell them through a digital platform or a person that signs up to do some online work on a digital platform, tries it out for a few hours but decides to stop. However, a person can also carry out a few sets of hours of digital platform employment in addition to carrying out the same type of activities but outside the scope of a digital platform. For example, a gardener that is an independent worker and have a few households as fixed clients and from time to time take on minor gardening tasks through a digital platform to increase the earnings.

98. While both situations would be characterized by the digital platform employment as sporadic and of short duration, they reflect two different situations. In the first instance the additional activities, i.e., selling some second-hand goods would constitute its own job, even if the number of hours spent on the activity and the income received from it is limited. The person might have an additional job with more hours and more income in which case the digital platform employment would be a secondary job. Alternatively, if the person is not engaged in any other employment activities, then the digital platform employment would be a main job of few hours. Conceptually, this is no different from the situation in relation to other types of non-digital platform employment. People might be engaged in all sorts of employment activities that might be sporadic and of few hours and information about the main job, second jobs, hours worked, and earnings received carries the information of how important these activities are for the person.

99. From the point of view of digital platform employment, these situations are more of a methodological challenge than a conceptual one as it highlights the importance of identifying digital platform employment not only in relation to the main job but also in secondary activities as well as in relation to the non-employed population if the objective is to provide an estimate on the prevalence of digital platform employment, as

further discussed in the previous chapter. However, the job, even if short and sporadic, would be directly linked to a digital platform as all clients connected to the activities linked to the job would be found through the digital platform or all the work would be carried out on the digital platform.

100. However, when a person is carrying out digital platform employment activities as well as activities outside the digital platform, the situation is more complex. While it could be argued that if the activities differ for example in industry and occupation, this could be considered as separate jobs, this becomes less straight forward when the same type of activities are partly carried out on or through a digital platform while others are not, as the only difference would be the interaction of a digital platform in relation to some but not all the activities.

101. As digital platform employment can be sporadic and of short durations and can be done in combination with activities of same type that are conducted outside digital platforms, it would be important to provide data that can separate between the different situations and contextualize the reliance or intensity of digital platform employment. Hours worked, paid as well as unpaid, on or through digital platforms would have relevance for reflecting the intensity of the digital platform work. As a supplement, income received would also be of relevance as this could capture the reliance on the digital platform work in relation to income from other sources. For example, Finland included a question in their labour force survey asking about how large a share of their earned income came from the work done through platforms – nearly all, around one half, one quarter or less. Of the 8 percent that had carried out any digital platform employment within the last 12 months only 0.3 percent indicated that this work contributed to at least 25 percent of their total earnings (ILO, 2020, p. 57). Indicating that the share of persons that have a relatively high degree of reliance on the income from the digital platform employment is in generally low in Finland.

102. A differentiation between different degrees of reliance on the digital platform employment would to some extent reflect the underlying dimensions in the conceptual framework on digital economy that separates between core measurement that includes economic units who produce the ICT goods and services, the narrow measurement, that includes economic units that rely entirely on digital technology and the broad measurement that would include economic unit where the production have been significantly enhanced by digital technology and data (OECD, 2020). While the digital platforms themselves can be viewed as the centre in a framework on digital platform employment as these are economic units relying entirely on digital technology and data, the jobs held by persons carrying out the work on or through digital platforms can be viewed as having a different degree of reliance on the digital platforms and their technology. The importance of differentiating between the intensity or reliance is also one of the recommendations given in the OECD-ILO-Eurostat handbook on digital platform work and employment which underlines the importance to separate between regular and occasional digital platform employment (OECD-ILO-Eurostat, 2023).

103. In a future framework on digital platform work and employment the aspects of intensity and reliance could be captured as indicators to provide a further context to persons carrying out digital platform work and employment or/and integrated as layers in the framework. However, independent of how these aspects are integrated there would be a strong need for further discussions around how to best address and reflect the differences in intensity and reliance on the work to create a better understanding of the structure and development of digital platform work and employment in countries.

6.2.   Further methodological development

104.   Digital platform work remains a complex and evolving field, for which there may not be a straightforward solution to every problem which emerges. There are however several issues which need to be improved upon in future work, as countries take further steps towards a more robust measurement of this phenomenon. While the framework provided in the OECD-ILO-Eurostat handbook recognizes that all forms of work potentially can be carried out on or through digital platforms the conceptual and methodological focus initially needs to be on employment as this is the core part of digital platform work, and the part for which there is a strong policy request for data.

105.   For a complete and thorough understanding of digital platform employment, it is highly likely that there will be a need to use multiple complementary statistical sources. Household surveys, and particularly labour force surveys with a representative sample would be an important tool for estimating the prevalence of digital platform employment. Based on current measurement experiences and challenges encountered, the labour force survey appears to remain an essential source of information for analysis and thus policymaking on digital platform employment. With adaptations, the labour force survey may be fine-tuned into becoming a good source of quantitative information from the perspective of workers and thus labour supply. As the survey is conducted at a high frequency in many regions and countries, it is well-equipped to capture the incidence of new trends and occurrences in the digital platform economy. While best positioned, the labour force survey in its general present form is limited in its ability to provide information about small-scale phenomena like digital platform employment. While many national statistical organizations currently measure basic information on the demographic breakdown of digital platform employment, a deeper understanding might be needed which could call for the use of specialised surveys that can generate more in-depth data on a specific type of digital platform employment and provide further insights on the characteristics, working conditions, challenges, and opportunities of the smaller target group. Big data web-scraping and the use of administrative registers could be an important complement to the data generated by surveys. Estimates on for example earnings received, tasks completed, or registered providers could be relevant to describe the trend of digital platform employment between measurements in surveys.

106.   Any future methodological work on digital platform employment would need to address these different possible statical sources and provide recommendations for how to best utilize them, taking their different possibilities and limitations into account. A particular focus could be on how they most optimally can be used in a complementary way that ensures transparency and a clear understanding among users of the statistics.

107.   As surveys are likely to continue to be an important instrument for collecting data on digital platform employment in many countries in all regions the focus of the future methodological work should be on increasing the efficiency of identifying digital platform employment in surveys and on providing recommendations for the type of data that should be collected. As highlighted in the room document this includes addressing several essential aspects that to some extent would impact on the conceptual framework.

108.   Fundamentally there is a need to gain more experience around how to identify digital platform employment most optimally without creating so called false positives and false negatives while at the same time aiming to minimise response burden to the extent possible. Experiences by countries indicates the need to use multiple questions covering different types of digital platform employment. Nevertheless, alternative approaches have been used by other countries. A better understanding of the impact of using different approaches is crucial for developing robust recommendations for how to measure digital platform employment in survey.

109.   The methodological work would, however, need to go beyond just the question on how to identify digital platform employment and address the question of what additional data to collect and how to collect that for

persons carrying out digital platform work considering the specificities of these activities. This include addressing issues specific to digital platform employment such as how to deal with the use of multiple digital platforms, the potential need to integrate different reference periods, how to most effectively measure both paid and unpaid working time, the intensity or reliance on the digital platform employment, the control exercised by digital platforms. In addition, there would be a need to look at aspects such as informality, social protection coverage and earnings, the classification of status in employment etc. aspects that are not as such necessarily restricted or specific to digital platform employment, but which can be particularly challenging to collect in relation to these activities.

110. The development of recommendations for what type of data to collect in relation to digital platform employment and how to collect it would be an essential aspect of the development of guidelines for digital platform work and employment. This is partly because any conceptual work needs to be done in an interplay with the methodological work but maybe even more importantly due to that much of the challenge of providing data on digital platform employment is linked to the methodological difficulties. At the same time there are experiences made by countries and organizations that would constitute a solid starting point for this work. Based on this, further work could be carried out to develop stronger recommendations for how to collect and produce data on digital platform employment. This would require a close collaboration with countries, partners and organizations who would need to actively contribute their experience and ongoing work in this area as well as committing time and resources for carrying out further tests and pilots as needed.

6.3. Process for developing statistical standards on digital platform work and employment.

111. If mandated by the 21st ICLS to work towards developing statistical standards on digital platform work and employment, then the ILO will further develop one or more options in the light of the guidance provided by the ICLS and with the support of relevant national and international experts. This will require both conceptual and methodological work carried out by the ILO in close collaboration with countries and social partners. The ILO would then prepare a draft guideline for discussion and adoption at the 22nd ICLS.

112. It would be important for the ILO to establish reference group of individuals with relevant technical expertise to provide guidance on, and support for, this work. The technical group should have representation from the different regions, and the social partners as well as other agencies and organizations.

113. To make progress around the methodological work, it would be essential that countries and other relevant partners commit to testing essential aspects of the framework and share their experiences based on country testing.

114. Advice on the possible development of guidelines on digital platform work and employment will be sought from the 21st ICLS. Advice will be sought on the following issues.

   (a) the need for developing statistical guidelines on digital platform work including a conceptual framework and recommendations for data collection;
   (b) whether the development of a conceptual framework of digital platform work and employment should use the framework provided by the OECD-ILO-Eurostat handbook on digital platform work and employment as a starting point that should be further developed;
   (c) if the focus on the conceptual work should be on the identified issues as presented in this room document or if additional or other dimensions would be essential to address as well.

(d) the call for countries to actively contribute to the methodological development including opportunities for testing different essential aspects;

(e) whether participants think that the ILO work related to developing a statistical guideline on digital platform work and employment should be carried out with a view to presenting new standards for discussion at the 22nd ICLS, necessitating the establishment of an Expert Working Group, or if not how else this work could be advanced.

7.   Summary

115.   Within this paper, the need for more data on digital platform employment was emphasised, to better inform ongoing policy discussions and to solve new and related issues. Developments towards a common statistical language were also outlined, including a component-based framework. Advantages and limitations from the current international experiences of measuring digital platform employment are also noted. Finally, this paper discussed pending and much-needed improvements to areas such as methodology, statistical frameworks, and processes to develop necessary statistical standards.

116.   Presently, the prevalence of digital platform employment is likely to differ between countries and can be expected to be relatively low in some countries. As data is currently produced through a wide variety of definitions, concepts, reference periods, and methodology, findings are not always comparable amongst different countries and regions. Lower to middle-income countries are also underrepresented in existing data.

117.   There is a strong demand for the provision of reliable and relevant statistics on digital platform employment, which can contribute to the policy discussion and create a more common understanding amongst policy makers. Statistical insight on the relevant aspects of this phenomenon is needed, such as on job characteristics, quality of employment, algorithmic management, and social protections.

118.   Challenges with the current lack of conceptual and methodological harmonization are to be expected due to the relatively recent emergence of digital platform employment. However, this phenomenon continues to present more challenges as the complex and dynamic digital platform landscape evolves. While the work that has been done in the OECD-ILO-Eurostat handbook is an important step forward to create a more harmonized statistical language, concepts, and terms, more work is needed to evolve from this promising starting point to an end-product. The boundaries provided by the proposed definition of digital platform employment still create ambiguous cases which need to be addressed and dealt with.

119.   The flexible framework provided in the handbook is an important advancement of the conceptualization of digital platform work and employment. It points at the need for a dynamic framework which allows data producers to focus on different components of what can broadly be described as digital platform employment, depending on the specific objectives, while still ensuring transparency of the user of the statistics. However, there is a need to further assess and discuss whether the different layers included in the framework are sufficient or if additional or other dimensions should be added to better reflect the need of data.

120.   Current measurement attempts are better described as experimental than established methodologies. They provide insights on different aspects of digital platform employment and serve as valuable learning examples on the advantages of different measurement choices, as well as the challenges and possibilities of measuring digital platform employment through different statistical sources.

121.   It is crucial to engage in comprehensive discussions to further refine the definitions and components pertaining to digital platform employment. These discussions should reflect the needs and perspectives of countries from different regions and contexts, as well as the requirements of social partners. A process following the tripartite structure of the ILO, with statistical experts representing all regions, would ensure the development of outcomes with global relevance, independent of country-specific contexts.

122.   These discussions should address fundamental issues, including the definition of digital platforms, digital platform work and employment, and the relevant dimensions and components within their boundaries. Additionally, aspects such as additional characteristics associated with digital platform work and employment,

which are significant for statistical identification, should be considered, considering policy discussions and needs.

123. The framework provided in the OECD-EU-ILO handbook on the measurement of digital platform work and employment would constitute a good starting point for such discussion. The component-based framework is broad in its scope but provides flexibility that enables countries to measure specific parts of digital platform work that has relevance within the country, while taking the specific policy objectives and the available statistical resources into account.

124. While the framework provided in the handbook is an important step forward to create a more common statistical language in relation to digital platform work and employment, a more in-depth discussion around the different definitions, boundaries, components, and layers would contribute to create further clarity around statistics in this area. A broader agreement around a more general, or alternatively a stricter definition of digital platform employment would contribute to clarify the ambiguous situations which currently exist on the borderline of inclusion or exclusion, as per current handbook definitions.

125. It would also be necessary to further assess whether the different layers provided in the handbook are sufficient and most optimal, or if other layers and components should be added. These layers may be the control exercised by digital platforms, on-line versus on-location digital platform employment, intensity and reliance on the digital platform employment, or other dimensions and indicators. Such layers should be integrated to further strengthen a future framework, and thereby place countries in an even better position to collect the needed data.

126. Any future conceptual work should be done in conjunction with further methodological work, to ensure that a future statistical standard on digital platform work and employment can be measured in an effective way and produce relevant and useful data meeting the need of the users. A possible future standard would also benefit from a process that includes the social partners and statistical experts representing all regions, to ensure its global relevance independent of country context.

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