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The risks of digital transformation in business trade and its impact on employment in institutions.

مخاطر التحول الرقمي في تجارة الأعمال وأثره على التوظيف في المؤسسات.

Leader:

Fahad Ahmed Al-Huthifi.

ID:

21300750.

Supervisor:

Dr. Walked abdelgawwad.

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The risks of digital transformation in business trade and its impact on employment in institutions

Abstract

The world of work and corporate landscapes are being transformed by digitalization, which is also changing the production, consumption, and distribution limits. Due to the emergence of new products, methods, and techniques, this has greatly increased the prospects for growth while also posing significant risks.

Employment presents both employers and employees with new challenges. The results of the existing studies have a wide range, which is a reflection of the fact that the overall effects on labour markets are still very ambiguous. Initial government reactions seem to be reactive rather than proactive, focusing on reducing the negative consequences of digitalization rather than hoping to gain from its potential advantages.

This study focuses on the impact of digitalization and the on-demand economy on employment and industrial relations. Traditional businesses and industries as well as new forms of work in the on demand economy are assessed. For both, job creation and destruction, interaction with customers and workers/employees, labour relations in terms of both the organization of work and industrial relations as well as government responses, with a specific focus on labour conditions, taxation and social security, are discussed. The study emphasise in particular aspects relevant to employers.

Introduction

The world of today is more connected than ever before, which has sped up the economy's transition to a digital economy. According to the International Telecommunication Union (ITU) of the United Nations, 63% of the world's population used the Internet regularly in 2021.¹ The COVID-19 pandemic has hastened the digital transformation process. Global Internet traffic is predicted to surpass all previous Internet traffic in 2022.² Without a question, industrialized economies in particular are transitioning to a digital economy that is rapidly changing and data-driven.

The world of work is changing as digital technology permeates almost every industry and office. The transformation of labour markets brought about by digitization is one of the most common processes. Despite the fact that most recent data on the size of the digital workforce are fragmented and the presence and influence of digital workers remains difficult to measure, the picture emerging is sobering. Many The potential for major economic growth in digital employment is recognized by governments, the commercial

sector, NGOs/INGOs, and civil society players. Economic Cooperation and Development Organization (OECD) claims that nearly all of its member states—there are just 4 outliers out of 38—have a national digital strategy, which includes building digital infrastructure and developing digital skills.³ Nations like Malaysia, Nigeria, Egypt, and China also view digitization as a crucial national development strategy. The emergence of these tactics has significant effects on workplace structures, employee welfare, and working conditions globally and presents new obstacles for legislative solutions.

Defining digital employment and discussing its characteristics in terms of regional distribution, worker profiles, and sectoral features, this study evaluates the body of research on digitalization in the context of employment. It examines how employment connections, new forms of work that have emerged, the skills needed, and job quality have all changed as a result of digitalization. Last but not least, consideration is given to the demographic groups that run the risk of being marginalized in the digital economy, including youth, women, minorities, people with disabilities, refugees/displaced people, and migrants. The study briefly discusses some of the current policy measures that have been developed to guarantee respectable employment in the context of digitalization, and it finishes by outlining any remaining research gaps.

Impact of digitalization on employment

Existing employment are transformed by digitalization, which necessitates new abilities to do new tasks. As a result, the current work force may need to be retrained or replaced by individuals who already possess these skills. As a result of digitization, new occupations are created while others are eliminated. These forces are not brand-new. There are several instances of how new technology like electricity and steam engines have altered the nature of work in the past. In the past, technical advancement first caused a decrease in the demand for labour before it began to create new jobs.

The primary issue at hand is whether or not this revolution will have comparable outcomes. Several analysts estimate the number of jobs that will be created and lost as a result of digitalization in traditional organizations and industries. The methods used and the nations looked at have an impact on the results, which are very variable.

Estimates often account for the number of routine and non-routine jobs that could be automated, but this does not guarantee that automation will occur. Only a few studies take into consideration other effects like productivity increases and employment creation brought about by the development of new technology.

According to these projections, the polarization of the employment market is expected to be a result of digitalization. Particularly low- and middle-skill jobs are thought to be automatable. Future labour markets will place a high value on entrepreneurial and creative abilities as well as digital capabilities.

Impact of digitalization on enterprises

Digitalization has a significant impact on businesses in the manufacturing and services sectors, as convergent trends can be seen in how micro, small, and medium-sized businesses engage with clients and staff. The interconnectedness of value chains, the development of digital customer interfaces, and the reduction of cyber threats are the key ingredients for successful adaption.

Digitalization has the ability to significantly cut market entry barriers, opening up new markets for businesses to enter as well as expanding existing ones. Online platforms are allowed to exchange products and services, including labor, thanks to the widespread usage of algorithms. Traditional businesses are also being transformed by algorithms, allowing them to redefine their plans in accordance with cutting-edge solutions while improving the management of their assets and operations. The cost of employing ICT tools, such as data storage, sharing, and processing, is significantly falling due to trends in "platformization" and asset dematerialization, which are also enhancing teamwork. Digitalization enhances demand and supply matching, maximizes trading volumes, and lowers transaction costs overall.

Due to the increased flexibility and dispersion of work, evolving work monitoring techniques, recruitment strategies, and skill and training requirements, digitalization has an impact on existing organizational and management structures in traditional organizations and industries. More generally, whether established businesses like industrial operators can start their own digital transformation before disruptive competition drives them out of business is the true challenge facing them. As it relates to issues like legal accountability, data privacy, and workplace safety regulations, digitalization also raises concerns about the function of robots or platforms and their interactions with workers or users.

Traditional businesses and industries

The fourth industrial revolution, or digitalization of the economy, as some experts have dubbed it, will have serious effects on employment creation and destruction. However, opinions on the extent to which ICT and new digital technologies, such as data analytics, artificial intelligence, 3D printing, cloud computing, the Internet of things (IoT), and robots, will be applied more broadly and affect both existing and future activities and jobs

are largely divided. In addition to automation, economic advances, globalization, and shifting consumer tastes and practices will also affect employment demand and supply.

Prior industrial revolutions brought about welfare improvements and a growth in employment, however in most cases these effects took some time to materialize. In fact, technological advancements like steam, electricity, and the assembly line initially caused the economy to contract before it began to rise again.

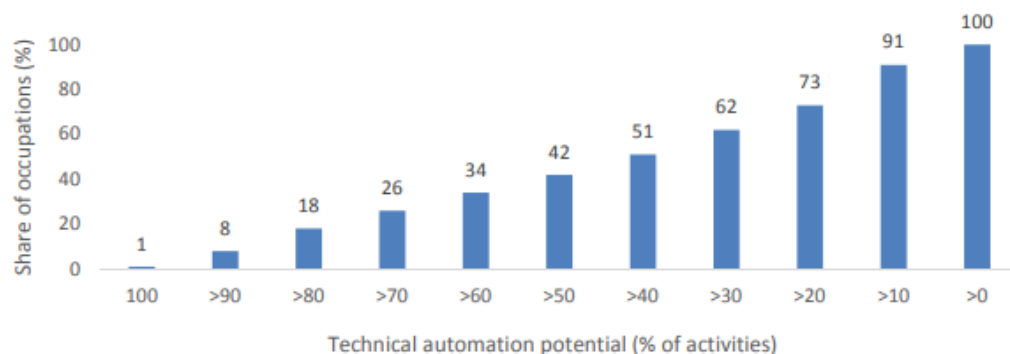
(Mokyr et al., 2015; OECD, 2015). Whether the digital revolution will also result in a rise in socioeconomic conditions is yet to be seen. It is impossible to make a definitive statement regarding the particular processes and groups that will be impacted by digitalization based on the information that is now available.

The impact of new technologies on currently offered goods and services is unclear. On the one hand, it's likely to increase productivity, which would result in fewer jobs being needed.

Numerous tasks can be automated based on technology that have been shown to work, yet most of the time this

not completely eliminate the jobs (Autor & Handel, 2013). For instance, Arntz et al. (2016) projected that just 9% of employment in OECD nations could have more than 70% of the operations automated.

According to estimates from the McKinsey Global Institute, while a significant portion of the activities of many more jobs may be automated, only approximately 1% of employment' activities could be fully automated based on proven technology. 60% of employment have at least 30% of their tasks that can be automated (see Figure 2.1). Automatable tasks are equivalent to around 62 million full-time jobs or €1.75 trillion in yearly pay in the five major EU economies.



While many jobs may not be entirely mechanized, they do contain a sizable portion of automatable tasks. The automation of these processes will fundamentally alter how these jobs are carried out. (OECD, 2016). Less than 10% of occupations in France are at risk from automation, according to the French Conseil orientation pour l'Emploi (COE), whereas 50% of current jobs are expected to change in terms of content and organisation. Numerous studies have shown that in order to compete in an increasingly competitive market, producers are increasingly selling services on top of manufactured goods.

This chapter assesses the impact of the development of the on-demand economy and digitalization on the enterprises generating work. Digitalization is changing companies from the inside by influencing organizational structures and managerial strategies, as well as from the outside in their relations with customers, partners and competitors within changing business ecosystems. The chapter discusses the opportunities and threats of the on-demand economy and digitalization, as well as best practices for small and medium-sized and large companies along two avenues: interaction with customers and interaction with employees. A third part will analyse the levels and pace of digitalization in countries covered by the study.

Interaction with customers

Through the use of multi-channel solutions, constant interconnectedness, and peer-to-peer systems, among other technological advancements in the software and hardware sectors, the production of goods and the delivery of services are made more cost- and time-effective, more interactive, and more personalized. Another example is the better use of digital data for improved customization.

These qualities enable producers and service providers to better monitor consumer behavior and anticipate desires. Through peer reviews, rating systems, price comparison tools, and social networks that increase access to information and broaden consumer choice, the Internet also makes it possible for customers to evaluate offerings and communicate more readily.

In order to maximize their core activities, established European firms should take advantage of the key digitalization drivers revealed in recent studies. According to a poll

by PWC (2015) of German manufacturers, managers were able to concentrate more on customer satisfaction by creating specialized solutions as a result of greater integration and management of horizontal and vertical value chains. Roland Berger also claimed that in order for businesses to leverage four sets of tools to increase productivity from 20% to 30% per industry, they must be able to do the following: collect and use digital data; automate production processes; connect value chains; and create digital customer interfaces.

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LITERATURE REVIEW

READING REVIEW The growth of digitalization processes and their impact on the labour market are the focus of well-known foreign and domestic scientists' research, among which it is important to note: Arthur (2011), Azmuk (2020), Berezovskyi (2021), Borisova (2021), Bottalico (2021), Brynjolfsson (2000), Bühner (2017), Bukh (2017), Cove (2018), Eichhorst (2017), Gray (2015), Gretchenko (2021), Butko, Ivanova (2020), Kindzersky (2020), Kitova (2021), Koptelov (2021), Korzun (2020), Koznov

The study (BOTTALICO, 2021) is based on an examination of recent changes in the logistics labour market, taking into account the digitalization and automation processes that have an impact on working conditions, job profiles, training systems, and skill sets. Researchers (BUERER et al., 2016) have demonstrated that the opposite effect of digitalization on labour markets occurs, and that the relationship between technology and the labour market in the digital era might shift. The study (GRETCHENKO et al., 2021) makes a concrete set of new competencies for managing the job market by putting the fundamentals of digital organisation into practise. Scientists (SIMONOVA et al., 2021) have come to the conclusion that there are too many qualified experts on the job market with skills that are outdated.

The study (KUZNETSOVA et al., 2021) looks at the growth of the digital economy and how it affects changes in the labour market's structure, as well as the release and expansion of the demand for information technology. Scientists have examined the evolution of professions and employment models as well as the function of the platform's economy,

including the self-employment phenomenon (EICHHORST et al., 2017). The article's authors (LISHCHUK et al., 2021) take into account the institutional, infrastructural, and technological components of digitalization in rural areas and forecast that changing careers will require workers to pick up new skills that are in demand in the digital economy. The article (VASILESCU et al., 2020) investigates how digitization has affected the economy, society, and quality of life associated with significant challenges in the labour market.

The article (VASILESCU et al., 2020) investigates how digitization has affected the economy, society, and quality of life while posing considerable labour market issues. Based on the study's findings (BORISOVA et al. 2021), methodological recommendations for effective collaboration between academic institutions, corporate entities, and governmental organizations have been created for the training of professionals in demand in the labour market. Scientists (VLADIMIROV et al., 2021) have investigated future-relevant new specialties and competences, as well as barriers to retraining, and have drawn conclusions regarding the employment market's prospects. In Ukrainian scientific journals, both a positive and restrained view of the effects of digitization is presented (KINDZERSKY, 2020; TULCHYNSKA et al., 2020).

taking into account possible risks (AZMUK, 2020; DUBYNA et al., 2017; NOVIKOVA, 2019; KHANDIY et al., 2019; SHKARLET, 2017). According to KOZNOV (2019), the processes of digitalization can lead to structural unemployment only in the short term, since in the long and medium term there will be an adaptation of the training system for new specialties, the share of flexible forms of employment will increase, the share of remote employment will increase, the role of intellectual labour will increase compared to traditional physical work.

In addition to the meticulous predictions of digitalization, there are also more cautious predictions. For instance, DON TAPSCOTT (2014) emphasise the reduction of transaction costs (in the search and transmission of information, negotiations), which he views as one of the most significant effects of digitalization, as well as the potential for staff cost savings. According to KOZYREV (2018), the consequences of accelerating digitalization processes could include fraud, the shady use of others' money to buy cryptocurrency, and online "piracy." According to Fr. Sadova, the necessity to boost productivity and decrease expenses led to the beginning of the employment revolution.

competitiveness. The digitalization of the economy may be able to address this issue in the short to medium term, but it will ultimately result in a decline in the population's need for disposable income. Fr. Sadova contends that the need for cost-cutting and increased competitiveness, which in the short term can be addressed by the economy's digitalization process, but in the long run will result in a decrease in the population's demand for solvents, is what sparked the transformation of employment.

The risks of digitalization are also highlighted by BUKH et al. (2018), namely: the marginalization of workers from developing countries because the digital economy is growing primarily in developed countries; the potential for "returning production" to developed countries, which would mean deindustrialization of developing countries. According to KHANDIY et al. (2019), the social risks of digitalization's impact on labour relations are primarily at the individual level and include job losses, the loss of one's primary source of income, a lack of social security, a loss of social standing, the potential for personality deterioration, and marginalization. Although the substance of the digital economy, informatization, and digital transformation, as well as their effects on the labour market and adaptive tactics of digital transitions to minimize societal hazards, have all been extensively covered in the scholarly literature labour market and deterioration of protection of workers' rights in the process of changing social and labour relations need to be clarified.

In this regard, the article's goal is to systematize the risks of the digital economy's impact on the labour market, social structures, and labour processes in Ukraine in order to support the need for developing solutions that may be adjusted to lessen social risks and the bad effects of digitization. Clarifying the idea, different forms and natures of risks in work relations, and their structuring, as well as demonstrating how the process of digitization has affected the labour market, are what constitute novelty.

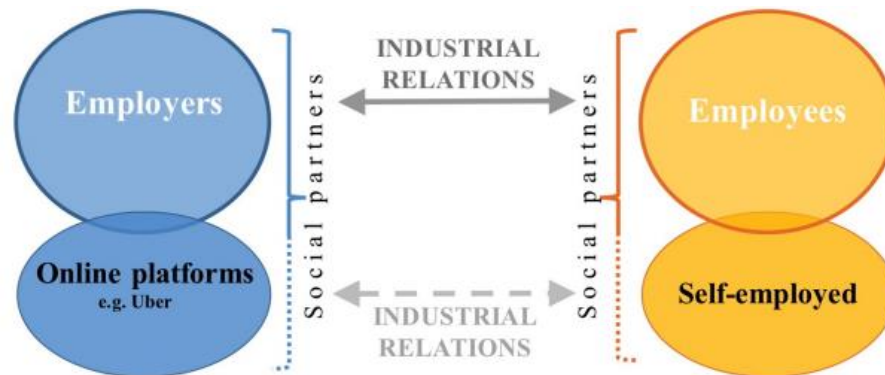
The development of STEM and digital skills is a top priority for policymakers in Europe. The European Commission has highlighted the actions that must be made to promote digital skills in Europe in the "New Skills Agenda for Europe." The Digital Skills and Jobs Coalition initiative²⁶, which aims to support individuals in their career and learning choices, improve skills forecasting, analyse skills needs, and bring digital skills to all educational levels (in collaboration with a range of stakeholders including national governments, social partners, and education institutes), is another significant recent proposal. The following demographics are the focus of the Digital Skills and Jobs Coalition:

- All citizens can engage in the digital society with the help of universal digital skills.
- Digital skills in education: Changing lifetime teaching and learning of these skills
- learning perspective and teacher training.
- Digital skills for the labour force; developing digital skills needed in the digital economy.
- More and better trained ICT professionals; developing high-level digital skills for ICT
- professionals in all sectors.

Demand-driven economy

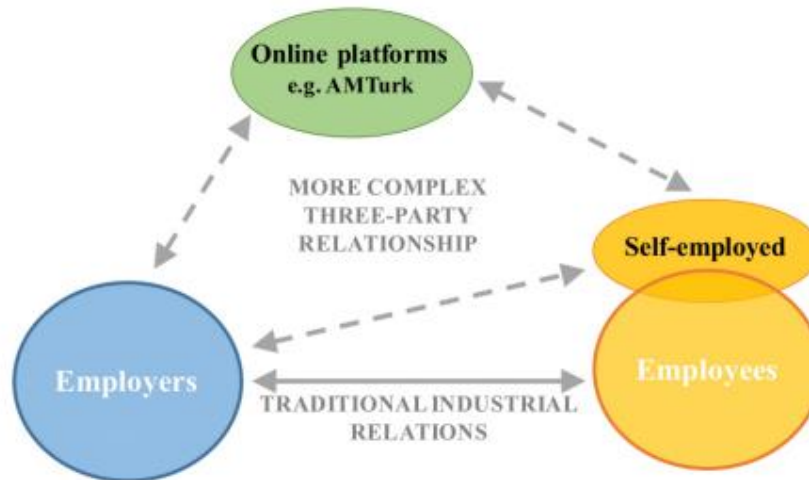
A summary of how labour relations function in some areas of the on-demand economy is shown in Figure 4.2. The on-demand economy has some similarities to more conventional

industries where labour relations are handled through negotiations and collective bargaining between social partners that represent businesses and employees. (as represented in the top part of the chart). Even while they aren't legally employers, some platforms, like those in the ride-sharing industry, seem to perform a similar function to employers in terms of labour relations. In these scenarios, self-employed people could discover themselves in a situation resembling that of an employee.



Source: Authors own elaboration.

The existing laws, norms, and regulations in conventional industries give the framework within which actions can be made to address the effects of digitalization and benefit from it. Often, a framework of this kind does not exist or it is not evident how it would apply to new businesses or types of employment. Additionally, social discussion and collective bargaining are frequently more difficult for a variety of reasons. For instance, it's frequently difficult to determine if someone who works through a platform is an employee or a self-employed person. Is the platform an employer or an intermediary? Some of the trade unions we spoke with explained that neither platform workers nor platforms are necessarily represented by existing social partners. They may be difficult to unite and there is no framework in which negotiations take place. Nevertheless, such a negotiation framework could be valuable for all parties involved.



Government responses to digitalization

This chapter focuses on how governments react to the on-demand economy and the effects of digitalization on conventional businesses and industries. With a focus on the fields of labour conditions and work organization, taxation, and social security, it examines current plans, recommendations, and solutions.

How local and national governments should or should respond to the benefits and problems brought on by digitalization and the on-demand economy has been the subject of much discussion in recent years.

Nevertheless, despite widespread interest in these issues and repeated worries about potential negative repercussions, for instance, despite the abundance of blog posts and opinion pieces, there is hardly any academic research or policy documentation that may be used to inform the discussion. Additionally, it appears that the on-demand economy is the main topic of conversation in the general media rather than digitalization and its effects on established businesses and industries. Additionally, when digitalization is brought up, the emphasis is frequently on productivity, corporate operations, and growth. However, this chapter analyses how the government has responded to these dynamics. As a result, it makes extensive use of recent data as well as interviews with important parties, including decision-makers from various levels and departments of government in Canada and the EU member states.

One could infer from the interviews that many governments are only now beginning to look into and address digitalization and the on-demand economy. Many of the interviewees mentioned that their government had just issued a request for studies, formed a task force or work group, or begun internal discussions about these topics. Many respondents

emphasized that few policy documents have been made public because the government is only now beginning to address these issues. Some people specifically mentioned this problem when we questioned them why they couldn't give us a written policy paper to back up their claims.

Traditional businesses and industries

Although there is much discussion about how governments could or should respond to the opportunities and threats that the on-demand economy creates, such as the case of Uber in major cities around the world, it seems that there is much less discussion about how governments might react to the effects of digitalization in traditional businesses and industries, especially when considering issues like social security.

Early stages: Many governments are only now beginning to address the issues of digitization and the on-demand economy (many have requested studies, formed working groups, or taken other actions, but few specific outcomes or plans have been presented).

Reactive: concentrated mostly on addressing adverse effects or limiting the scope, rather than looking at ways to benefit conventional firms and industries from digitalization. the economy of demand Narrow scope: Ad hoc responses to individual problems, frequently without a comprehensive strategy (though difficult to attain given that digitalization and the on demand economy touch on many different topics)

Governments seem to have given education and skills the most consideration (how to prepare the workforce of the future and how to modify the current workforce to changing circumstances)

While this is a thought-provoking idea, it is important to remember that digitalization affects various fields and that it is occurring at the same time as several related trends, including the expansion of non-traditional employment opportunities, the expansion of the service industry, and globalization, which may influence one another. This assessment of existing policies only offered scant proof of how governments have reacted to digitalization in traditional industries and businesses.

On-demand economy

The on-demand economy has received little scholarly attention to date, which makes the situation more difficult.

evaluation of policy suggestions made by researchers, government representatives, or other stakeholders (Cod Agnone et al., 2016b; Maselli et al., 2016). However, it appears that there is a distinct There is agreement that the on-demand economy is growing both inside

and outside of the EU, and that a policy response is necessary (BDA, 2015; Todoli-Signes, 2015; Codagnone et al., 2016b; Drahokoupil & Fabo, 2016). For instance, Holmes & McGuinty (2015) have proposed suggestions on how to address the problems presented by the on-demand economy for the Ontario government. A cross-jurisdictional task force should be established to further examine opportunities and challenges, and working with the federal government to assure tax compliance are a few of the recommendations.

Organisation of on-demand work

Limiting the reach of the on-demand economy is the goal of one set of government solutions. There appear to be two main justifications for this: the first is to establish some norms for the management of work, such as to ensure that clients are secure, and the second is to avoid unfair rivalry with established firms. While Uber is permitted in its UberX or UberBlack forms (depending on the country), where drivers are private individuals without any requirements, it has been outlawed in Belgium, France, and Italy. However, drivers are still required to comply with a number of requirements, such as administrative registration, special insurance, special training, or a clear criminal record.

record (Vaughan & Daverio, 2016; Kirchgaessner, 2015, Bayart, 2015; Jacquin, 2015). In Spain, Uber was completely outlawed in December 2014; as it tries to re-enter the market, it only accepts drivers who have a special licence. (Vaughan & Daverio, 2016). Another law that limits the size of the on-demand economy is the restriction on the use of crowdfunding platforms in Spain, with maximum equity and debt.

Conclusions

In Europe, digitalization has been seen as a potentially significant engine of innovation and economic growth, spawning new approaches, strategies, and data that boost productivity and efficiency and enable the creation of novel goods and services. It is anticipated that employment creation and job loss will result from digitalization, although it is unclear what the overall effect will be.

The development of technology alone has not been responsible for the recent changes in Europe's work markets. In fact, important factors like globalization, demographic changes, and climate change have had a significant impact on Europe's labour markets. These dynamics have caught the attention of policymakers and scholars all over Europe because they are occurring against a backdrop of extremely high unemployment rates.

Data on how digitalization and the on-demand economy are affecting work markets and labour relations is scarce. Additionally, the data that do exist are inconsistent. For this

reason, even though the research field is expanding quickly, there is now just a small amount of literature on these themes.

Similar to earlier industrial revolutions, the digital revolution is projected to have two primary effects on businesses and employees. On the one hand, new technologies and data analytics allow businesses to improve their productivity, increase labour efficiency, and replace tasks, which is likely to result in a loss of jobs. This has been confirmed in numerous nations, including Estonia, among taxi dispatchers and in the telecom industry, for example. However, it will make it possible for new businesses and activities to develop, which generates jobs.

Despite its rapid expansion, the on-demand economy is still relatively modest in Europe. At the moment, just disruptive in a select few industries. If it continues to expand faster than the traditional economy, this could change. In every industry, on-demand platforms are becoming more prevalent.

implying an entire re-intermediation of the economy. Due to the completion of previously impossible tasks and the creation of fresh opportunities for people who were previously barred from the labour market to participate, this creates a variety of market and regulatory frictions as well as significant opportunities for employers and workers.

As a positive feedback from disruptive innovations, ICT advancements and multisided platforms are also profoundly changing traditional industries. This is forcing incumbents to restructure their business models, where data is crucial.

It's interesting to note that national and EU policymakers have already given skills a lot of attention, as is indicated by the increase of initiatives (some of which have also been initiated by foreign agencies) to improve the population's digital literacy. The talent challenge is twofold: putting the Both the future work force and the current workforce must be prepared to adapt to changes in the job market. Future generations will probably place even more emphasis on lifelong learning.

The on-demand economy is no different from traditional businesses and industries in that nothing is known about how digitalization will affect them. Because there aren't enough data to investigate digitalization and the on-demand economy, there aren't many studies that are evidence-based. However, the data, estimates, and studies that are available point to a variety of conclusions based on various assumptions. Analysis is made more difficult by the fast-paced nature of digitalization and the growth of the on-demand economy, which is another problem. Therefore, further research will be needed to reach more firm conclusions about how digitalization will affect job markets.

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