The economy and labour markets of the EU and beyond are in the midst of a digital revolution. While the transition to a digitalised society has been happening for several decades, technological change is accelerating due to the expanding capacity of electronic devices to store, process and communicate information. The recent COVID-19 pandemic has further contributed to increasing the pace of digitalisation.

Digitalisation is a wide field, and its impact differs depending on the technology, country, sector and type of business as well as the workers in the digital environment. To capture this complexity, Eurofound has developed a conceptual framework that structures its research according to three vectors of change: the automation of tasks, the digitisation of processes and coordination through platforms. In practice, these vectors tend to be deployed in combination, together with general purpose technologies such as artificial intelligence (AI).

This report provides a snapshot of how these vectors influence employment, work and social dialogue. It concentrates on key emerging issues and derives policy pointers from them. The report summarises the content of Eurofound’s online resource The digital age: Automation, digitisation and platforms, which is planned to be regularly updated and extended.

Key findings

Progress

- While digital technologies are extending into economic activity across the EU, just 28% of establishments (single company sites) with at least 10 employees are highly digitalised, according to data from the European Company Survey (ECS) 2019. At the same time, digitalisation is limited in 27% of establishments. Digitalisation intensity tends to increase with establishment size.

- While it is not possible to establish causality, the available data show that digitalisation in EU establishments coincides with innovation, internationalisation and job creation. Earlier discussions about digitalisation leading to massive job loss are now more nuanced, recognising that changes to task profiles within jobs may be the more important employment impact.

- Digital technologies are reaching a high level of sophistication and affordability, and are therefore becoming more and more central to work management systems. That said, data from the ECS 2019 show that only 5% of EU establishments used data analytics for employee monitoring before the COVID-19 crisis. Since then, however, and related to the extraordinary rise in digitally enabled remote working, the market for surveillance technologies has been expanding.

- Digital technology has enabled people to work from anywhere and at any time, meaning that there is potential for work organisation to be much more flexible, which can be beneficial for companies as well as workers.

- Several initiatives at EU level aim to ensure that as digitalisation spreads there remains a ‘human in the loop’ so that task assignment, management and surveillance are not left entirely to algorithms. Examples include the Ethics guidelines for trustworthy AI (which are linked to the EU Digital Strategy), the General Data Protection Regulation (GDPR), the Digital Skills Agenda, the Digital Markets Act, the Digital Services Act and the autonomous framework agreement on digitalisation by the EU-level social partners.
Challenges

- Limited access to financial resources and lack of the required skills are significant bottlenecks hindering digitalisation in companies, particularly smaller enterprises.
- As digitalisation tends to result in higher demand for high-skilled white-collar workers, polarisation and shortages in the labour market are expected.
- There are increasing concerns about quality of employment because digitalisation disrupts continuity in employment relationships.
- Digitalisation has the potential to raise employee monitoring and data-driven work management to a new dimension by enabling the collection of more data more rapidly and potentially capturing more personal data, including outside the employer’s premises. If not designed with workers’ interests in mind, digitalisation can also increase their exposure to physical and psychosocial risks arising from long and unsocial working hours; constant connectivity and overlap of private and working time; and increased work intensity and stress.
- Social dialogue and collective bargaining in the digital age face increasing challenges in representing and mobilising workers and anticipating the wider implications of deploying advanced technologies in the workplace.

Policy pointers

- To ensure that Europe keeps pace with other world regions and reaps the benefits of digitalisation, policymakers should explore ways to further support the digitalisation of European businesses. They should consider financial support, exchange of use cases on digital deployment, and facilitating cooperation on the development and implementation of technologies. An opportunity for doing so is the state support linked to the European Commission’s Recovery and Resilience Facility. Special attention should be paid to supporting small and medium-sized enterprises (in line with the vision for Europe’s Digital Decade) and specific sectors and countries that need to increase the pace of digitalisation.
- Tools to anticipate skills needs, such as the Skills Panorama developed by the European Centre for the Development of Vocational Training (Cedefop) at EU level or similar instruments in the Member States, should be maintained and if necessary further developed to focus more specifically on skills needs in the digital age. Pathways to equip vulnerable groups (such as older workers or those with low formal educational attainment) with relevant skills should be explored, in line with the European Pillar of Social Rights Action Plan and the European Skills Agenda. At the same time, managers need to be trained for the particularities of work organisation and people management in the digital age. They must also learn to use the data generated by digital technologies for the mutual benefit of the company and staff. For those workers affected by redundancies, the European Globalisation Adjustment Fund for Displaced Workers can play a role in supporting reskilling and upskilling.
- Early warning tools could be used to alert policymakers to any slide toward decreasing employment quality, including potential misclassification of employment status. Policymakers should explore the causes of such developments and their impact on businesses and workers as a basis for informed policymaking.
- The opportunities for working time flexibility and improved work–life balance related to digitisation and platform work could be used strategically to support the labour market integration of specific groups, such as those with care responsibilities or health issues. At the same time, the danger of working hours being too short, too long, unpredictable or antisocial and the expectation that workers be constantly available should be addressed, for example through the implementation of the Directive on Transparent and Predictable Working Conditions.
- Building upon the GDPR and the EU legal framework on AI, policy needs to ensure transparency about what data are generated for what purposes and that they are used in a human and ethical way.
- Existing health and safety regulations should be reviewed for their coverage of psychosocial harm, and monitoring bodies (such as labour inspectorates) could be encouraged to pay additional attention to psychosocial risks and impacts.

Further information

The report The digital age: Implications of automation, digitisation and platforms for work and employment is available at http://eurofound.link/ef21007

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