European Centre for the Development of Vocational Training

Artificial Intelligence in EU Workplaces: another great divide?

First insights from Cedefop's AI skills survey

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PRESS BACKGROUNDER

Artificial intelligence in EU workplaces: a new Cedefop survey

The rapid proliferation of generative and other artificial intelligence (AI) technologies has raised hopes about a revival in productivity growth and competitiveness in many economic sectors of the European labour market. However, many express fears about the potential adverse consequences of AI and algorithmic work for employment and job quality.

While recent studies have alleviated fears of massive job destruction that could ensue due to the adoption of AI tools and systems at work, there is still scarce evidence about the actual use of AI tools and applications by European workers and their consequences for workers well-being.

Cedefop recently implemented its first **AI skills survey** to:

- obtain robust insights on the proliferation of work that uses algorithms powered by AI in European workplaces and associated AI skill gaps of adult workers,
- produce data-driven analysis to support policy recommendations on the best use of AI in labour markets

Cedefop's AI skills survey

At the heart of Cedefop's mission to provide informed skills intelligence, and crucial to analysing and informing skills policies, is the Cedefop European skills and jobs survey (ESJS). Regularly conducted [1], this survey provides a comprehensive assessment of the European Union's skills mismatch and jobs landscape. It systematically collects EU-wide

1 A second wave – ESJS2 - carried out in 2021 in all EU Member States, Iceland and Norway, building on the approach of the first 2014 survey. For more information see: https://www.cedefop.europa.eu/en/tools/european-skills-jobs-survey

data on skill requirements, digitalization, skill mismatches, and both initial and continuing education for adult workers in European labor markets.

In December 2023, Cedefop designed its first AI skills survey as a follow-up to the ESJS2, to collect rich information about advanced digital technologies, particularly AI, used from random samples of adult workers.

A total of 5342 employees from eleven EU countries: Belgium, Czechia, France, Germany, Greece, Ireland, Luxembourg, Poland, Portugal, Slovakia, Spain, were interviewed [2]during the period February-May 2024, and were asked the following questions:

- *How many European adult workers are using AI technologies as part of their work?*
- *What is the automation impact of AI technologies on jobs and tasks?*
- *What is the relationship between the use of AI technologies and workers' job performance and labour market outcomes?*
- *To what extent are European companies and organisations supporting the take-up of AI technologies?*
- *To what extent are European workers experiencing AI skill gaps and participating in training to mitigate them?*

For more information about the survey you may contact Cedefop expert Konstantinos Pouliakas: Konstantinos.Pouliakas@cedefop.europa.eu

Key findings of the Cedefop AI skills survey

Work using algorithms powered by AI and AI use in European workplaces

- About one in seven adult workers in European labour markets usually work with digital tools or applications that can automatically do some of their tasks, using algorithms.
- For instance, 22% of workers are always or often using such automatic digital tools to recognise, translate, transcribe or generate text.
- 28% of adult workers in the surveyed European labour markets either use AI technologies to do their job or their co-workers do so.

A great European AI divide?

2 The survey relied on probabilistic online panels (Verian Public Voice), employing robust questionnaire pre-testing, translation and fieldwork protocols. A target of 500 respondents were targeted in each country except Luxembourg where 250 adult workers were eventually interviewed. The target population are adults aged 16-64 in wage and salary employment (i.e. paid employees, excluding self-employed and family workers). A probability-based approach was used in all countries. Online interviews were conducted from 21/2/2024 to 8/5/2024 in all countries.

- While over on third of workers in Northern European countries (e.g. Luxembourg, Belgium, Germany, France) say that they or their colleagues use AI technologies at their workplace, this is true for less than one in four workers in Poland (24%), Greece (21%) and Spain (16%), respectively.
- There is a growing divergence in the frequency of use of AI technologies between leading and lagging European countries.

Job automation

- 15% of adult workers are afraid that they may completely lose their job due to AI technologies, although in some EU countries, such as Greece, Poland and Slovakia, about 1 in 5 workers express such concern.
- The risk of job automation is higher in routine and precarious jobs (i.e. those with limited job security) and in lower-skilled occupations. It is particularly prevalent in jobs in which workers use computerised machines to carry out their job tasks.
- As opposed to completely losing their job, a higher share of workers declare that AI has an impact on their job tasks. 20% of the adult workforce believe that AI can do more than half of their job tasks.
- While 30% of those who use AI technologies and tools to do their job experienced some task destruction, 41% had to do some new tasks. For 68% the main effect of AI technologies is to enable them to do their job tasks *faster*.

AI skill gap and upskilling

- 61% of European workers agree that it is fairly or very likely that they will need new knowledge and skills to cope with the impact of AI tools on their work in the next five years.
- But 44% think it is unlikely their company or organisation will provide training to their staff to deal with AI.
- Only 15% of adult European workers have participated in training to develop their knowledge and skills in using AI tools or systems in the past year.
- More than a half of European employees have a low level of AI competency.

What lessons for EU AI skills policy?

Cedefop's AI skills survey highlights the significant need for upskilling and reskilling of adult workers in European job markets, to cope with the transformation of their jobs due to AI technology.

Although there is marked potential of AI technologies to foster efficiency and productivity gains in jobs, for many workers (55%) there are yet limited productivity gains following AI take-up. Overcoming gender and age-segregation associated with the use of AI

technologies in labour markets is crucial, given that females and older workers are less likely to deploy AI as part of their work.

Initial and continuing vocational education and training systems in Europe should aim to further strengthen the integration of AI competencies and skills into school curricula.

The digital transition needs a skills revolution

Key insights from Cedefop's European skills and jobs survey

- **The digital transition is a skills transition**
  20-40% of the European adult workforce needs further training in "basic" digital activities.
- **Bridging the digital divide**,
  While 6 in 10 adult workers learn new digital technologies in Finland, about 3 in 10 do so in Italy and Cyprus.
  Those who need digital skills training the most are least likely to get it (e.g. lower educated, females, workers in SMEs, rural areas, low-skilled jobs).
- **Nudging effective digital skills training**
  Key factors affecting digital skills training are workers' automation fear and attitudes to technology.

About Cedefop

Cedefop is the European Union agency undertaking research and policy analyses to boost our understanding of labour markets' rapidly changing skill needs, and of how vocational education and training (VET) is adapting to address them.

By convening a wide range of labour market stakeholders at national, regional, local and sectoral level, Cedefop identifies, analyses, synthesises and presents quantitative and qualitative information on skills and labour markets. This *skills intelligence* is an essential asset to capture and comprehensively anticipate labour market needs and skill trends.

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