Call for Papers

Cedefop workshop

Human-centred digital transitions and skill mismatches in European workplaces

Motivation

Recent improvements in autonomous digital technologies, such as the radical developments in generative artificial intelligence, in particular large language models (LLMs), and advanced robotics, can markedly affect skills demand in workplaces and foster skill mismatches (Felten et. al., 2023; Eloundou et al., 2023). Most literature has focused on investigating the impact of new digital technologies on job loss and worker replacement (Acemoglu and Autor, 2011; Bessen et al., 2020; Acemoglu and Restrepo, 2020; Acemoglu et al., 2022) or the risk of automation (Frey and Osborne, 2017; Arntz et al., 2017). Technological change can substitute human capital, such as when automating technologies substitute for labour input in typically routine-intensive / low-skill jobs (Autor et al., 2003; Goos et al., 2009). It could however also be a complementary factor to mainly high-skilled work (McGuinness et al., 2021), augmenting labour and improving job quality by replacing mundane tasks and fostering new activities (Acemoglu and Restrepo, 2019).

While much policy debate has been recently calling for a 'human centred' technological change (Cedefop, 2022), further research is needed on the conditions under which new digital technologies may entail negative versus positive labour market outcomes for workers, and on how they may interact with their job tasks, upskilling needs and overall job quality (Green, 2012; Autor and Handel, 2013; Salvatori et al., 2018; Freeman et al., 2020). A greater focus on the relationship of digitalisation with worker upskilling and reskilling needs and how these may be governed by different forms of work organisation is in general warranted (Menon et al., 2020). Deeper understanding of the interaction between technology adoption in workplaces, (algorithmic) management practices (Kellog et al., 2020) and investment in workers' continuing skill development may assist in the design of a human-capital friendly regulatory framework (Parker and Grote, 2023).

The focus of this Cedefop event is to investigate factors underlying the different forms of conjoined agency between humans and technology and how these may differ across different workplace environments characterised by diverse human resource management practices (Murray et al., 2021). Understanding the conditions under which different digital technologies may have positive or negative implications for workers' upskilling and skills matching outcomes is a key aim of the workshop.

Workshop research questions

Cedefop invites the submission of research papers that focus on, but are not restricted to, the following themes:

- How do (new) digital technologies interact with human capital and what factors determine if there is complementarity or substitutability of technology for skills?
- How do (new) digital technologies augment or restrict workers' skilling needs?
- How is the labour market effect of digitalisation mediated by different job-skill requirements and alternative forms of work organisation?
- What type of skill mismatches are associated with the adoption of new digital technologies in workplaces?
- How does the adoption of digital technologies in firms interact with firm's human resource management and skill utilisation strategies?
- What drivers and policies may influence workers' participation in education and training activities to cope with new digital technologies?

To expand our understanding of the links between digitalisation and skill mismatches in workplaces, we welcome studies approaching these themes from multi-disciplinary perspectives, theoretical and empirical lenses, using qualitative and/or quantitative methods.

Access to Cedefop's second European skills and jobs survey (ESJS2)

Interested researchers may request for access to Cedefop's second European skills and jobs survey (ESJS2) microdata, in case they wish to use it for drafting a research paper for the workshop. Access will be granted subject to the approval of a research proposal and after signing a Cedefop confidentiality agreement.

The ESJS2 is the second wave of a Cedefop periodic survey collecting information on the job-skill requirements, digitalisation, skill mismatches and workplace learning of representative samples of European adult workers. It builds on the first wave carried out in 2014. The main aim of the ESJS2 is to inform the policy debate on the impact of digitalisation on the future of work and skills, also in the context of the COVID-19 pandemic.

Fielded in summer 2021, ESJS2 collected information from about 46 213 adult workers in the EU27 Member States plus Norway and Iceland (EU+). After joining forces with the European Training Foundation (ETF), the ESJS2 was carried out in an additional seven countries (Western Balkans and Israel) in 2022-23.

Cedefop's main ESJS2 report '*Setting Europe on course for a human digital transition*' provides a full description of the main survey statistics and initial empirical findings. ESJS2 indicators and the survey questionnaire are available at the ESJS2 online tool. More information on the Cedefop European skills and jobs survey (ESJS) is available from Cedefop's webportal.

Submission process

Interested researchers who wish to use the Cedefop ESJS2 microdata as main data source for their analysis are invited to first submit a draft research proposal by **19 January 2024**.

Researchers who use the ESJS2 microdata <u>and</u> those who wish to deploy other data sets for their analysis are invited to submit an extended research proposal or draft paper by **05 July 2024**.

Following Cedefop's peer-review, several selected papers will be invited to be presented at the Cedefop workshop.

One of the main aims of the workshop will be to provide researchers with the opportunity to further improve the quality of the papers and to subsequently consider submitting them for publication in:

(1) a special issue of Cedefop's Working Paper series (light peer-review),

and/or

(2) a special issue of the Journal of Education and Work (regular peer-review).

The *Journal of Education and Work* is an international forum for academic research and policy analysis which focuses on the interplay of education and economic systems. The journal examines how knowledge, skills, values and attitudes both about and for work and employment are developed within the education system. The journal also explores the various forms of industrial training and accreditation in the economic system, including changes in the economic and industrial infrastructure which influence the type of employees required. Work in the informal economy is also included. The *JEW* has a particular interest in comparative studies of skill formation and especially the transition from education to employment, how this process is structured and managed, and its effects on young people, schools, colleges, universities and employers. The journal publishes interdisciplinary papers which reflect the multifaceted nature of the journal's concerns. Articles are welcome from economists, psychologists, sociologists, educationalists, and policy analysts. The journal publishes case studies from practitioners which present innovation grounded in relevant literature and debate.

Important dates

- Deadline for submission of draft research proposals to request access to Cedefop ESJS2 microdata: **19 January 2024**
- Deadline for submission of extended research proposals / draft papers for potential presentation at Cedefop workshop: **05 July 2024**
- Notification of acceptance to Cedefop workshop: **16 September 2024**
- Cedefop workshop: **12 December 2024**

- Deadline for submission of revised draft papers for inclusion in Cedefop special working paper series: **March 2025**

- Deadline for submission of revised draft papers for potential inclusion in JEW special issue: **April 2025**
- Publication of JEW special issue: **Fall 2025**

Contacts

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