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# Literature review on the provision of digital skills for adults

*Executive summary*

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## Executive summary

### Background and scope

The development of digital skills and competences has become a prominent theme in policy discourse and research over the past decade, given the rapid technological advances and penetration of technology in every sphere of life. This trend has recently accelerated as the COVID-19 pandemic pushed policymakers and practitioners to set up and provide remote learning at all levels of education and training. Moreover, the pandemic and the related need to work remotely have also incentivised many adults to reflect upon and act to improve their digital skills. Similarly, there has been a growing focus on upskilling and training aimed at aligning labour markets with the rapid transformation of global economies.

This report has been prepared for DG EAC to provide a focused review of the literature published since 2018 on the provision of digital skills to adults in Europe. The review looks at the **provision of medium-level digital skills** by taking into consideration courses or programmes that are either work-based or provided in a non-formal and informal context and are targeted at adults of working age. The analysis focuses on understanding what aspects are addressed by policies relating to the development of digital skills among adults, what thematic areas and target groups are covered by the existing provision of digital skills, and how current provision addresses the needs identified.

**Literature on adults' digital skills is rich, but evidence analysing the provision of digital skills for adults is limited.** While the number of papers published is substantial and growing, their utility for policy-relevant analysis is somewhat limited. Most of the available literature is concerned with the digitalisation of learning, the assessment of digital skills and their conceptualisation. A small number of papers examine specific policies and modes of provision; however, the related findings do not lead to policy-relevant conclusions. The lack of such research and literature indicates an alarming gap, given both the importance of the issue and the growing amount of public and private funding spent on designing education programmes aimed at upskilling and reskilling adults.

### Key findings

**Key message 1.** There is a great deal of **heterogeneity among countries** in terms of both the stage of digitalisation and the number and comprehensiveness of policies addressing digital education and skills:

- The majority of Member States **integrate the oversight of strategic policies** targeting the provision of digital skills for adults **into the same ministry that has institutional responsibilities for overall education policy** (i.e. the Ministry of Education), though there are a number of initiatives led by various other ministries (Ministry of Social Affairs, Ministry of the Economy, etc). Policies themselves are usually articulated through **generic strategic documents on digitalisation**, even though countries are **increasingly developing specific digital skills strategies for adults** (or other target groups).
- **Individuals are most often targeted as both citizens or workers**, with governments being concerned about equipping them with the skills needed for societal and economic transformations. Policies pay particular attention to the **inclusion of those lacking digital skills, as well as taking into consideration intersecting inequalities** (such as the gender divide).
- Education pathways are organised through **training institutions, employers or support for individual self-learning**, with most countries pursuing a multi-

**pronged approach** that combines at least some of these. There is an increasing availability of individual pathways supported by vouchers, individual learning accounts and similar approaches.

- **The improvement of adult digital skills can be found in nearly all countries' Recovery and Resilience Plans**, but the extent of its importance differs. This applies not only to adult digital skills, but to digital skills more generally. Common measures prioritised in the plans include upgrading the policy framework, support for demand-based upskilling through individual empowerment, and the use of public employment services to fund investment in both the employed and the unemployed.

**Key message 2.** A wide range of initiatives are dedicated to improving adults' digital skills; however, these appear to vary greatly between countries and target groups. Consequently, access to digital skills programmes is not always universal and equal.

- Public support for the acquisition of digital skills tends to be provided by funding employer-based programmes, individual learning through vouchers or learning accounts, or by creating platforms that connect individuals and enterprises with specific providers.
- Many initiatives are bottom-up and demand-driven. However, even in countries in which a plethora of options are available, **accessibility is a challenge**.
- This challenge tends to be addressed by **aggregators and/or virtual providers**, generally created at national level and using public funding. These span from providers of information, through funders, all the way up to organisers of training activities. However, not only do such providers exist in a minority of Member States and regions, but they also have major weaknesses. In most cases, they are most likely to be successfully accessed by those who already possess some level of digital literacy, leading to the so-called 'Matthew effect', in which more is given to those who already possess some initial endowment. Investment in individual learning accounts and vouchers offers the potential to address the issue of accessibility.
- In addition to digital gateways, **there is a parallel track of place-based networks of providers** that focus on both basic and more advanced digital skills. Even though such networks provide a physical alternative to digital pathways, the effectiveness of their activities and programmes remains to be seen, as they are rarely evaluated.

**Key message 3.** Due to its evolving nature and the lack of rigorous research, **no exhaustive mapping yet exists with regard to what is currently offered in terms of digital skills provision**. There is also very limited evidence regarding the causal effects and relative cost-effectiveness of existing policies and interventions. This leads to difficulties in identifying best practices or exemplary models for the provision of digital skills to adults.

Given the significant resources invested in digitalisation strategies and digital skills acquisition, as well as the increasing importance of such skills both to social cohesion and to economic transformations, authorities at European and national levels should **invest more in gathering rigorous evidence on the topic, and should develop a set of good practices** that could, with adjustments to national circumstances, be rapidly spread across Europe. This is an important area for future research, and requires relevant infrastructure to foster data collection (such as the development of precise indicators and the application of innovative big data approaches), as well as a greater focus on impact evaluation to understand the effects in both the short and long terms.

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