

The dynamics of ICT skills in EU member states

Mikkel Barslund - June 2021

This research note aimed to develop a **digital skills intensity index** to measure the average number of digital skills used by workers according to the ISCO classification of their occupations.

The main advantage of this index is that **it can be linked to the EU-LFS**, which is the only frequent large-scale harmonised survey in the EU, offering **disaggregated sub-samples** at regional (NUTS2 levels).

The digital skills intensity indicator was built on top of the ESCO and Digital Competence Framework (DigComp) frameworks to provide an average digital skills intensity measure compatible with the ISCO classification available in the EU-LFS and many other surveys.



This study finds **substantial variation in overall digital skills intensity** across the 23 EU countries covered. Sweden and the Netherlands have the highest digital skills intensities, with Romania and Hungary having the lowest. The variation in outcomes is also evident among NUTS2 areas within countries, with **particularly large variation in Romania**.



Differences in economic structure measured by NACE categories (1 digit) explain **20-40% of observed differences** across countries in overall skills intensities.



There is a strong education gradient in occupational digital skills intensity. This is pronounced in countries with low overall digital intensity scores. **Only small differences are found between men and women** in average occupational digital skills intensity.



Considering the period 2011-2019, the study finds **no evidence of convergence among countries**, nor regions in digital skills intensity in the labour market.

Figure 1. Country level digital skills intensity (2019 Average = 100)

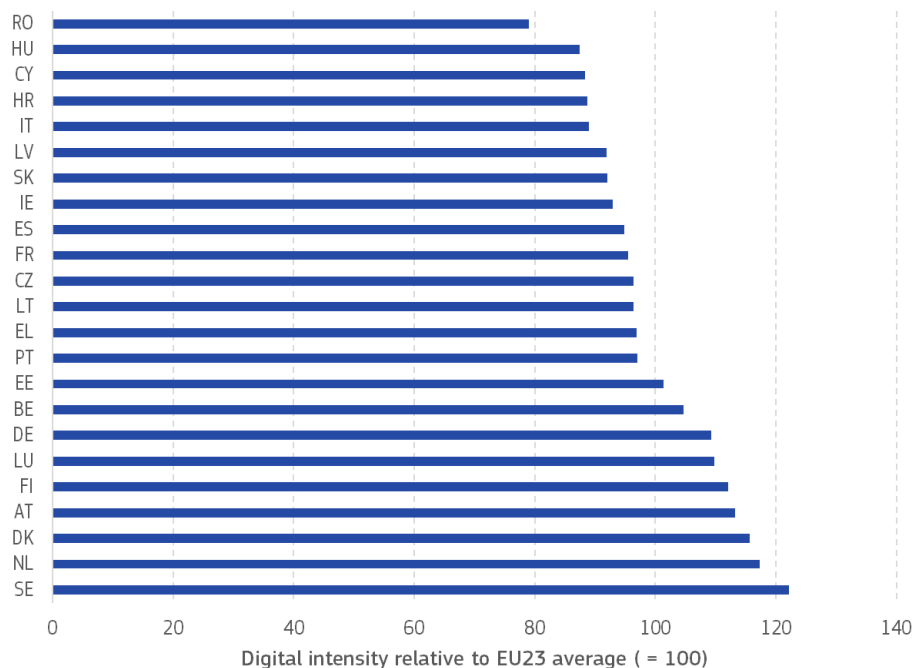
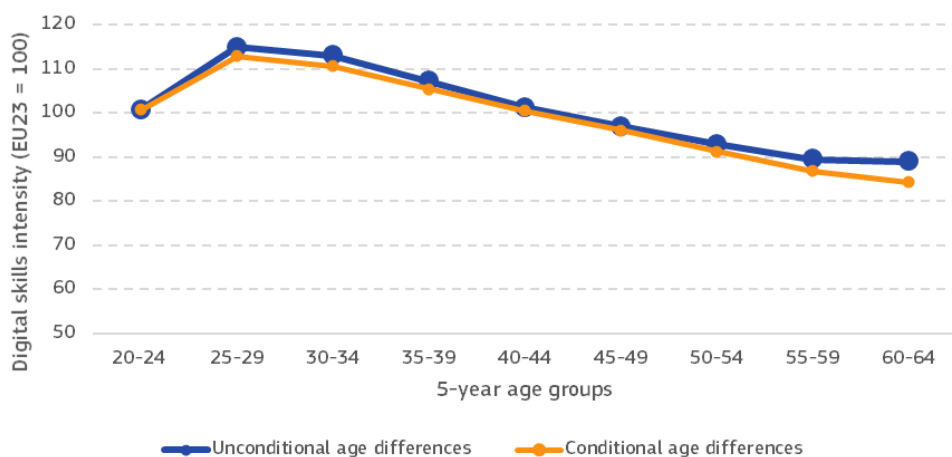


Figure 2. Age gradient in digital skills intensity, 23 Member States, 2019



To download the full research note, please visit the [SSM website](#)

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