Digital skills post-covid19
Shifting gears in the digital transition

20 April 2021
Virtual workshop

#LMSInext
Getting the future right
Towards smarter and people-centred skills intelligence

• Cedefop skills forecasts
• Online job advertisements
• Digital skills post-Covid19
• Making skills intelligence actionable

Will Covid19 accelerate digital transition?

LMSInext: from simple statistics to advanced research tools

Supporting digital transformation: LMSI and digital policies
Digital skills post-Covid 19

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Matteo Sostero (JRC-Seville)
Jakub Kajtman (DG Connect)
• The session and chat are recorded
• Please keep your mics muted
• Use chat to comment or post questions
• #LMSInext in social media

• Thank you very much for participating

• Enjoy!!
Digital skills, Covid19 and automation: Evidence from latest Cedefop research
2020 in skills: Digital on the rise

Skill demand in online job ads: 2020 vs. 2019

Rapid growth
Some growth
Some decline
Rapid decline

Digital skills
Business / office
Communication / collaboration / creativity
Values / attitudes
Mechanical / electrical trades

CEDEFOP
Digital skills in jobs: rising, but slowly

Digital skills in occupations: Employment share by ICT tasks importance

Source: Labour Force Survey and the Eurofound/JRC task framework
Digital skills gaps: good policies or bad jobs?

Digital skills demand

- No ICT
- Advanced
- Moderate
- Basic

(Risk of) digital skill gap

- Advanced
- Moderate
- Basic

Source: Cedefop 1st European skills and jobs survey
Automation risk in post-Covid19 job market?

**Higher risk**
- Handling and moving objects
- Performing general physical activities
- Updating and using relevant knowledge
- Staffing organisational units
- Scheduling work and activities
- Controlling machines and processes
- Maintaining and repairing mechanised equipment
- Operating vehicles, mechanised devices or equipment
- Evaluating information to determine compliance with standards
- Inspecting equipment, structures or materials

**Lower risk**
- Guiding, directing and motivating subordinates
- Communicating with persons outside the organisation
- Thinking creatively
- Establishing and maintaining interpersonal relationships
- Supervise peers or subordinates
- Analysing data or information
- Judging the qualities of things, services or people
- Making decisions and solving problems
- Developing and building teams
- Provide consultation and advice to others

14% high automation risk;

40% task transformation.

~40% of “fully automatable” occupations grew in 2013-18

-2% average employment change

Key: worker information provision & consultation

Source: Pouliakas (2021) using Cedefop Skills OVATE
Main research questions:

- What do people do at work?
- Basic or complex digital skills use?
- New digital technologies?
- Skill gaps or remedial learning?

Better measurement of:

- job-skill requirements
- skills/learning complexity
- job routinisation vs. upskilling
- digitalisation / automation

Pillars and conceptual design:

- Digital job skill needs
- New digital technologies
- Upskilling vs. routinisation
- Skill gaps / learning intensity
Effect of new digital technologies on EU workers

- **50-55%**
  - EU workers using a main computing device (PC, laptop) to do their job

- **11-20%**
  - EU workers who need advanced digital skills (database management, coding, AI) to do their jobs

- **43%**
  - EU workers who had to learn new digital software or computerised machinery for their job

- **52%**
  - EU workers who learnt such new digital software or computerised machinery in less than 5 days

**Outcomes**

- Skill obsolescence
- Automation
- Skill gap

**Changing job tasks**

- More learning
- More routine
- More task variety
- More autonomy

**Skill needs**

- Innovation skills
- Communication skills
- Advanced numeracy skills
- Advanced literacy skills

**Source:** Cedefop 2nd ESJS pilot survey N = 1,148
Digital skills or digital workers?

<table>
<thead>
<tr>
<th>Skills needs of online platform workers</th>
<th>Microworkers</th>
<th>Online freelancers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer literacy</td>
<td>40%</td>
<td>20%</td>
</tr>
<tr>
<td>Analytical skills</td>
<td>50%</td>
<td>40%</td>
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<tr>
<td>Organisational skills</td>
<td>60%</td>
<td>60%</td>
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<tr>
<td>Personal dispositions</td>
<td>80%</td>
<td>80%</td>
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<tr>
<td>Communication skill</td>
<td>80%</td>
<td>80%</td>
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<tr>
<td>&quot;Being an online worker&quot;</td>
<td>60%</td>
<td>60%</td>
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<tr>
<td>Learning skills</td>
<td>60%</td>
<td>60%</td>
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<tr>
<td>Obtaining work on platforms</td>
<td>80%</td>
<td>80%</td>
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<tr>
<td>Foreign languages</td>
<td>40%</td>
<td>40%</td>
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<tr>
<td>Core technical skills</td>
<td>40%</td>
<td>40%</td>
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</tbody>
</table>

Developing and matching skills in the online platform economy

Findings on new forms of digital work and learning from CeDEFOP's CrowdLearn study
Where the Covid-19 impacts the most?

Digital workers?
Digital learners?
Digital citizens?
The European skills and jobs survey

Digitalisation, AI and future of work

Skills in online job advertisements