Educating learners for their future, not our past

OECD Southeast Asia Regional Forum 2021

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With the labour market undergoing rapid, fundamental change – decision-making is more important, but also more difficult.

Jobs are at risk of automation

Labour markets are polarising
Percentage point change in share of total employment (OECD average), 1995 to 2015

New forms of work are emerging

Inequality is rising
Richest 10% v. poorest 10%

7x
25 years ago

9x
Now
Digitalisation

Democratizing

Particularizing

Empowering

Concentrating

Homogenizing

Disempowering
The new nature of the firm

- Digital “platform” technology drives the (re)organisation of firms
- Small units of employment with global reach require re-think of what “small” means (employment or revenue to market share)
- Peer-to-peer markets are blurring the distinction between a consumer and a business
- Governments work with platforms to implement policies
Skills and the risk of automation

Risk of automation vs. Skills (PIAAC Numeracy)

R² = 0.273

Countries included:
- Australia
- Austria
- Canada
- Chile
- Cyprus
- Czech Republic
- Denmark
- England (UK)
- Estonia
- Flanders (Belgium)
- France
- Germany
- Greece
- Hungary
- Ireland
- Israel
- Italy
- Japan
- Kazakhstan
- Korea
- Lithuania
- Mexico
- Netherlands
- Northern Ireland (UK)
- OECD average
- Poland
- Portugal
- Russian Federation
- Singapore
- Slovak Republic
- Slovenia
- Spain
- Sweden
- Turkey
- United States
- United States 2012/2014
- United States 2017
- Peru
- ...
Concentration of occupational expectations by 15-year-olds

Percentage of students naming 10 most popular occupations (PISA)

Girls

Boys

Many teenagers aspire to jobs that are at high risk of automation (PISA)
Two effects of digitalisation

Non routine tasks

Routine tasks

Tasks without use of ICT

Tasks with use of ICT
Two effects of digitalisation

- Non routine tasks, Low use of ICT
- Non routine tasks, High use of ICT
- Routine tasks, Low use of ICT
- Routine tasks, High use of ICT
The kind of things that are easy to teach are now easy to automate, digitize or outsource.
ADDITIONAL RETURNS TO SKILLS IN DIGITAL-INTENSIVE INDUSTRIES

![Bar chart showing additional returns to skills in digital-intensive industries compared to less digital-intensive industries.](chart)

- **Additional returns to skills in digital-intensive industries**
- **Returns to skills in less digital-intensive industries**

Source: OECD Science, Technology and Industry Scoreboard 2017, Statlink: http://dx.doi.org/10.1787/888933617472

See: Grundke et al. (2018), Which skills for the digital era? Returns to skills analysis

Not significant
EXPECTED EFFECT OF INCREASE FROM 50TH TO 75TH PCTILE OF DIGITAL EXPOSURE ON PROBABILITY OF LEARNING AT LEAST ONCE A WEEK

Skills to manage complex digital information

Young adults (25-34)

Older adults (55-65)
Education won the race with technology throughout history, but there is no automaticity it will do so in the future

Inspired by “The race between technology and education”
Pr. Goldin & Katz (Harvard)
Growth mindset and reading performance

Higher performance

Average reading score

OECD average

R² = 0.47

More students holding a growth mindset

Similar relationship within most countries (Figure III.14.2)
Growth mindset and student attitudes

Change in the following indices when students disagreed or strongly disagreed that "your intelligence is something about you that you can’t change very much":

- Motivation to master tasks
- Self-efficacy
- Fear of failure
- Learning goals
- Value of school

All linear regression models account for students' and schools' socio-economic profile.
Transformative competencies

- Creating new value
- Taking responsibility
- Reconciling tensions & dilemmas
We used to learn to do the work, now learning is the work

From:

- Primary and secondary education
- Tertiary: specialise

To:

- ECEC
- Primary and secondary education
- Tertiary: transversal

Job: Same sector

Retire and pension

Adult upskilling and reskilling
But: Low-skilled are less likely to participate in training

How is the additional funding shared between Governments, employers and beneficiaries?

What are the incentives?

Who sets the standards?

How are the levels of skills recognised?

Who trains the trainers?
• The digital transformation expands and diversifies education, training and learning opportunities.

• The certification of skills becomes increasingly important: employers need clear signals on workers’ skills.

• Firms are increasingly testing skills on their own while relying less on diplomas. How to certify skills and who should be in charge?

• Preferred option: Independent regulated systems for skills certification?
People outside firms

- **Unemployed**: Government. Funding for unemployment benefits, used for training?

- **People at high risk of losing their jobs**: firms or Government?

- People who want to **change jobs**

- Gig economy
Some governance challenges

• New forms of work: fewer taxes raised
• Ageing societies: higher expenditure in health and pensions
• Decentralised information: less control
• Link between education and jobs weakened: the role of Governments risks been diminished
• Need to predict rapid changes in skills demands and respond to them
Global co-operation can make the difference

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<th>Measurement tools</th>
<th>Policy analysis</th>
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<td>Work on <strong>education statistics</strong> with the ASEAN Secretariat</td>
<td>Curriculum reform</td>
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<td>Participation in <strong>PISA</strong> (and transition to CBA)</td>
<td>Evaluation and assessment</td>
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<tr>
<td>Participation in <strong>TALIS</strong></td>
<td>Developing <strong>teachers</strong> and school leaders</td>
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Thank you

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– The complete micro-level database

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