To fear or not to fear the future of work? Opportunities, disruptions and policy challenges

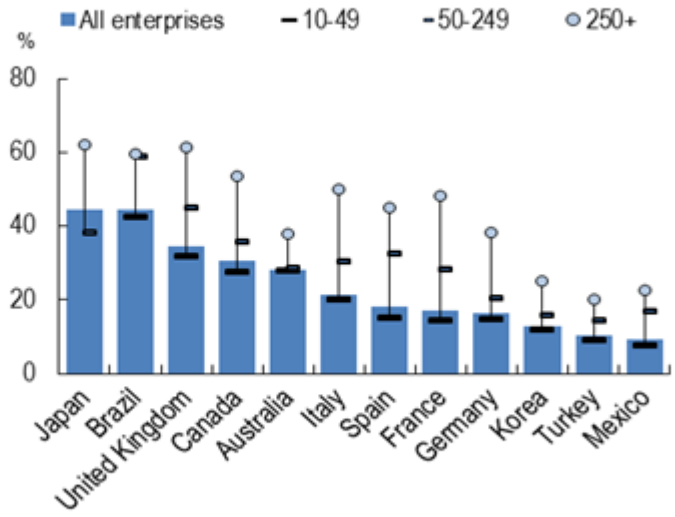
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By Dorothée Rouzet, Senior Economist, OECD Economics Department

Rapid technological change – from digitalisation to artificial intelligence, 3D printing and nanomaterials – is transforming the way goods and services are produced and consumed. It will have profound implications for the dynamics of productivity, jobs, investment and trade over the next 10 to 15 years. A new OECD report to G-20 Finance Ministers provides an overview of the implications of the changing world of work for achieving inclusive growth.

Technological breakthroughs offer huge potential to galvanise productivity and lift incomes, but these benefits have so far been slow to materialise. The key to solving this apparent puzzle is accelerating the adoption of technologies. Many firms have not yet taken advantage of digital services to improve their efficiency and reach.

The uptake of cloud computing services is uneven across firms and countries

% of enterprises in each employment size class, 2016



Note: Manufacturing and non-financial market services enterprises with at least ten employees.
Source: OECD ICT Access and Usage by Businesses database.

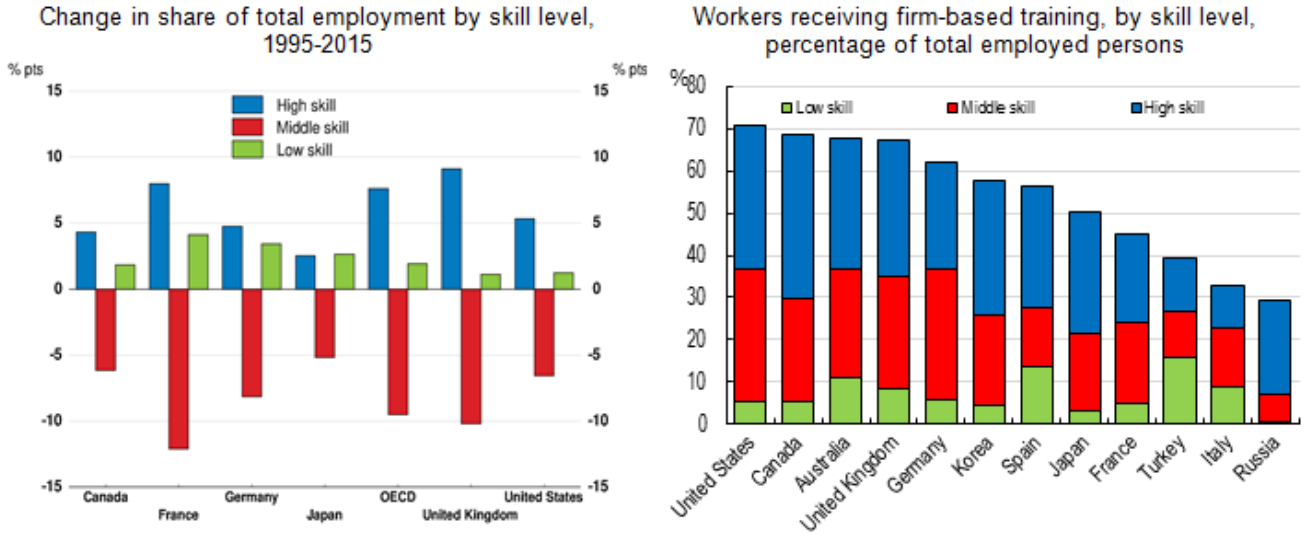
Reviving technology diffusion would help bridge the productivity gap between a small minority of highly productive firms and the rest of the economy. In emerging economies, ramping up the absorption of technologies may also be the only way to jumpstart a new development path, at a time when automation and 3D printing could erode their cost advantage in manufacturing. Boosting adoption will require addressing three types of bottlenecks: the roll-out of high-quality digital infrastructure; the availability of a complementary talent pool, including high managerial and ICT skills; and policy conditions that encourage competition, experimentation and business dynamism.

While striving to reap the growth benefits of new technologies, it should also be recognised that the future of work is fraught with anxieties and fears that the “rise of the robots” may lead to mass unemployment. Automation however has not created massive job losses so far, and is unlikely to do so in the future. New and more productive jobs will emerge while others disappear, but this implies major reallocations between tasks and activities – and serious disruptions for some workers. At the same time, new forms of work in the “gig economy” are offering workers more flexibility about when,

where and how they work, but may come with inferior job quality and low job security.

Employment has already been polarising away from middle-skill jobs. Some manual and basic skills are becoming obsolete while cognitive and ICT skills are in ever higher demand. Many workers are ill-equipped to navigate this transition. For instance, in OECD countries, 55% of workers lack the basic problem-solving skills needed in a technology-rich environment. Worryingly, training programmes are not doing a good job at reaching these low-skill workers who urgently need to re-skill and up-skill. Adapting education and training to evolving needs, and supporting transitions to new jobs, will be critical to ensure that the least skilled share in the benefits of technology.

Job markets are polarising, but those who need training most receive it least



Note: OECD is the unweighted average of 24 countries.

The challenges of the future of work transcend policy silos. They call for rethinking the design of policies spanning taxation, social protection, competition, innovation, skills and labour market policies. Ambitious and comprehensive policy packages will be key to help firms seize the opportunities brought by technological change, to help workers navigate the uncertainty, and ultimately to embrace the potential of rapid innovation to bring stronger and more inclusive growth.

Further reading

OECD (2018), Achieving inclusive growth in the face of digital transformation and the future of work, Report to G-20 Finance Ministers

Economic Policy Reforms: Going for Growth 2018

OECD Employment Outlook 2017

OECD Science, Technology and Industry Scoreboard 2017