

A BRIEF LOOK at the impacts of
automation in the work place

READY...

...for the
digital transformation
at work?

The OECD “Ready for Tomorrow” campaign aims to spark policy action to ensure that changes in the world of work create new opportunities for all rather than increasing inequalities.

Technology is changing the nature of work. The digital transformation means that some tasks that were traditionally performed by people are increasingly becoming automated. Initially, automation focused on routine tasks such as administrative work, financial tasks, paralegal work and reporting. However, with the rise of big data, artificial intelligence (AI), the internet of things and ever-increasing computing power, non-routine tasks are also progressively becoming automated.

What we know

- **About 14% of jobs in OECD countries are highly automatable over the next 15-20 years.** Another 32% of jobs face significant upheaval due to automation.
 - The highest risk is to routine jobs with low-skill requirements and low wages.
- **Not all jobs that are technically automatable will disappear completely from their place in the labour market.** They will at least in part be replaced by other jobs that are created in response to digitalisation, so employment in total may continue to rise.
 - Technological change is not associated with overall job loss. Going forward, there is much uncertainty about the speed of technology uptake and diffusion and the consequent impact on jobs.
- **New technologies and new markets are expected to provide increased flexibility and greater opportunities** for traditionally disadvantaged groups to participate into the labour market. For example, relatively inexperienced young people may have a comparative advantage over older workers for jobs that require skills using technology. Those with families could benefit from the job flexibility that technology could offer, potentially increasing female employment.
- **Current levels of training are not enough to offset the risk.** Workers at the highest risk of automation are less likely to have participated in on-the-job training, potentially making it more difficult for them to find or be placed in new roles.
- **Young professionals may find it difficult to enter employment** as graduate jobs and entry-level positions have a higher risk of automation than jobs held by established workers.

Computers create about as many jobs as they eliminate. In other words, automation is not causing persistent unemployment.

- James Bessen, Technology & Policy Research Initiative, Boston University School of Law



95%

of firms in OECD countries had a high-speed connection to the Internet (2016)

What the OECD recommends

- **Education systems need to adapt to the changes that automation brings.** Basic skills (literacy and numeracy), cognitive and social intelligence skills, plus skills needed to work effectively in a digital context are essential. Workers will need soft skills such as the ability to communicate, work in teams, lead, solve problems and self-manage.
- **Help people to continuously maintain their skills,** upskill and/or reskill throughout their working lives, in and outside of the workplace. This is critical, particularly for those in jobs likely to become automated.
- **Link training for the unemployed to labour market needs.** Newly created jobs may require very different skills from those jobs lost and may be located in different regions. Policies to help people back into work should reflect this reality, offering workers the chance to develop new skills or upgrade existing ones, and providing help in overcoming barriers to relocation.
- **Foster the right conditions for the adoption of new technologies,** especially in smaller organisations such as SMEs and start-ups. We need to boost innovation to spur productivity, new business models and the creation of jobs.
- **Create greater interaction and stronger links between learning in school and working in industry** to ensure youth have the right skills for a digitally intense job market.
- **Ensure safety nets are in place for those workers who lose their jobs because the tasks have changed and their skills are no longer fit for the work.** Ensure that they and their families do not fall into poverty and provide them with the means necessary – including reskilling – to find a new job.
- **Recognise informal and non-formal learning** alongside formal qualifications and training.



I look at myself as a destructor of jobs. I'm convinced that for every single job I create in Vivino, I am destroying 5-10 other jobs. That's the nature of the technology we are using today.

- Theis Sondergaard, Vivino



55%
of workers lack the basic problem-solving skills that are needed in a technology-rich environment

OECD Survey of Adult Skills

What do you think?

- Is technological change an opportunity or a disruption in our lives?
- What is needed to helpworkers find new job and career pathways? Should this be through public or private efforts? At the national or local level?
- What social policies should be developed to accompany the digital transformations of work? Will we need new forms of social protection?
- How can governments better engage with social partners such as unions, chambers of commerce or professional associations, as well as civil society and industry, to tackle the challenges of digitalisation?

Where to look for more...

- **Automation, skills use and training**
www.oecd-ilibrary.org/fr/employment/automation-skills-use-and-training_2e-2f4eea-en
- **Making the transformation work for growth and well-being**
<http://oecdinsights.org/2017/01/24/going-digital-making-the-transformation-work-for-growth-and-well-being/>
- **Digital Sclerosis: How digitalisation is outperforming us in the workplace**
www.oecd-forum.org/users/105929-kim-normann-andersen/posts/33788-digital-sclerosis-how-digitalisation-is-outperforming-us-in-the-workplace
- **Votre emploi sera-t-il automatisé ?**
http://observateurocde.org/news/fullstory.php/aid/4215/Votre_emploi_sera-t-il_automatis_E9_.html

www.oecd.org/employment/future-of-work/