



WHITE PAPER:

## **THE FUTURE OF WORK IN THE DIGITAL ERA**

### ***Introduction and Context***

What does the future have in store for work and employment? What are the challenges ahead of us? Will robots replace employees? Digital transformation has already been disrupting the workplace. More, there is widespread concern among citizens about the effects of the Fourth Industrial Revolution, which is distinguished by the advent of cyber-physical systems, in a society characterised by demographic change: in a Eurobarometer survey on “Attitudes towards the impact of digitisation and automation on daily life,” published last May, it was reported that 74% of Europeans worry that “due to the use of robots and artificial intelligence, more jobs will disappear than new jobs will be created. 72% of respondents believe robots steal peoples' jobs.”<sup>1</sup>

Work nature and job market disruptions due to technological advancement are nothing new. Earlier phases of machine development have caused similar sentiments of uncertainty and propagated comparable fears. Job depletion due to technical progress has always been followed by job creation, intertwined with a period of transition. New skills were acquired until a new economic –and social– equilibrium was redrawn. No transition was easy: there were losers, those who were left behind. But the economy, and society, survived. More than that, it thrived. How does this stage differ, if at all? Doomsday scenarios about the rise of the machines predict apocalyptic scenes: independent-minded AI, deep learning, massive technological unemployment. The truth is that we know little about either the pace or the extend of change. We know little about the number of jobs what will disappear and the number of jobs that will be created. Crucially, we know little about the number of jobs that will be transformed and the extent

---

<sup>1</sup> 'Attitudes Towards The Impact Of Digitisation And Automation On Daily Life' (*European Commission, 2017*) <<https://ec.europa.eu/digital-single-market/en/news/attitudes-towards-impact-digitisation-and-automation-daily-life>> accessed 11 January 2018.

to which those will be transformed. Predictions vary: OECD studies<sup>2</sup> predict that 9% of jobs are at a high risk of being completely automated. However, a far higher number of jobs, ranging from 50% to 70%, could face partial automation or automation of a certain number of tasks that a job currently requires.

Recent studies of the content of occupation in Europe have shown that work is becoming more repetitive and standardised in traditional non-routine office positions. This phenomenon of routinisation can only increase the possibility that a wider range of occupations is going to be replaced in future by automated software.

Indifferently of the scale and speed of change, which are unpredictable, what is certain is that the nature of work is changing again. And what we ought to do is to prepare for that change. There are two basic elements of this new stage that we have to address; the first one is increased flexibility, brought about by the obliteration of barriers between physical spaces thanks to advanced communications, as well as fundamental changes in traditional structures of ownership and usage. What we know is that work will become an activity or a set of tasks, rather than a place. Digitalisation, the advancement of telecommunications and the use of technology in work offers great advantages: from allowing accessing the job market to vulnerable categories of workers, to a decreased need for transportation and its consequential benefits for the environment. More than that, the introduction of shared use of manufactured capital, be that through the sharing economy or the People-to-People economy (P2PE)<sup>3</sup>, creates new opportunities for employment that transcend established practices. The second one has to do less with the nature of work and more so with the skill set required: how can job and task depletion and transformation be managed as to effect the least social harm, and ideally, the greatest social good? How can we enhance and instil adaptability? And overall, how can flexibility and adaptability be combined with security?

### ***Flexibility on the rise***

The number of Europeans in self-employment has been rising. So has the number of those in alternative work arrangements (Temps, agency workers, on-call workers, contract company workers, independent contractors, independent professionals or freelancers, as well as part-

---

<sup>2</sup> 'Automation and Independent Work in a Digital Economy' (OECD, 2016) <<https://www.oecd.org/els/emp/Policy%20brief%20-%20Automation%20and%20Independent%20Work%20in%20a%20Digital%20Economy.pdf>> accessed 11 January 2018

<sup>3</sup> See Juha-Pekka Nurvala, 'Uberisation' Is The Future Of The Digitalised Labour Market' (2015) 14 European View <<https://link.springer.com/article/10.1007/s12290-015-0378-y>> accessed 11 January 2018.

timers). An estimated<sup>4</sup> 15% of Europeans are self-employed. 20-25%<sup>5</sup> are in alternative work arrangements. Employment figures in the US show<sup>6</sup> that 36% of the workforce are freelancers. By 2027, freelancers could be a majority.

Even though figures in the European Union might mask underemployment, the trend is expected to persist. The main challenge is to adapt our social security systems, designed mainly for full-time, permanent contracts, to the new reality. In other words, we have to make a system modelled around "9 to 5," "for life" jobs cater for Uber or Taxify drivers, to illustrate the point. Technological advancement has the potential to empower millions of people through new opportunities. Our social security systems currently don't. How do we offer flexibility without sacrificing security? How do we provide adequate social protection? "In 2016, just below 40% of employed people in the EU were in non-standard employment or self-employed, half of whom are at risk of not having sufficient access to social protection and related employment services, according to estimates," a European Commission report<sup>7</sup> states.

All in all, the heterogeneity of the innovative ways of working implies the need to restructure the labour legal system from a general to a more detailed and tailor-made approach. New technologies and modernisation have created a new labour reality that requires legislative reforms and interventions. At the European Union level, with the recent launch of the European Pillar of Social Rights, the framework for new and more effective rights for citizens has been created. What we need now is the will to address the future challenges with a united and common European approach.

Three essential elements must be instilled when adapting our social security models to the new demands: accessibility, transferability and transparency, for all types of contracts and arrangements. Those are universally-acknowledged features. However, another question persists: should access to social protection be on a voluntary or mandatory basis?

At YEPP, we believe that rights and obligations should result from all types of employment, to safeguard universal minimum protection; a basic safety net is essential to Europe's social identity. The best way to empower individuals is through individual responsibility. But, it is our duty to

---

<sup>4</sup> 'Inception Impact Assessment: Access To Social Protection' (European Commission, 2017) <[https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2017-2067870\\_en](https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2017-2067870_en)> accessed 11 January 2018.

<sup>5</sup> Ibid.

<sup>6</sup> '4 Predictions For The Future Of Work' (Stephane Kasriel, 2017) <<https://www.weforum.org/agenda/2017/12/predictions-for-freelance-work-education/>> accessed 11 January 2018.

<sup>7</sup> 'Inception Impact Assessment: Access To Social Protection' (European Commission, 2017) <[https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2017-2067870\\_en](https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2017-2067870_en)> accessed 11 January 2018.

protect those who are unable to enter the free market labour force because of their age, a disability, other justified reasons or because of the general economic situation. Therefore, we recommend that national governments combine a free market system alongside with social policies that establish fair competition and a welfare state. We believe that the social costs that can result from lack of access to social rights far exceed the costs associated with mandatory social protection. This way, we will aim to prevent individual but also collective failure.

### ***Adaptability: the new great equaliser***

The skill set required for one to succeed in the digital era certainly defers from the one that our education systems have been preparing us for. More than that, it is hardly possible to predict what type of skills the new economy will precisely require, even in the near future. Our educational systems should be geared towards two main goals: teach those skills that cannot be easily replaced by machines, such as critical thinking and problem-solving, emotional intelligence, empathy and compassion<sup>8</sup>, and teach individuals how to permanently adapt; we will all have to learn how to constantly learn new skills. Adaptability will become the new equalizer. We will also have to invest more in lifelong learning. And it is the private sector that should take initiative: private enterprise is better positioned to assess and predict what will be required of future-ready employees. The private sector should also bear part of the cost for teaching those new skills necessary, at every level of education, including re-education.

What about the victims of the transition? Those who cannot adapt? The lost generation or generations? What will it become of them? Can we let those fall through the cracks? We certainly cannot. The success of our new social contract or social model in the Digital Era will depend not only upon how far the winners have reached in achieving their potential. It will also depend on whether we, as society, have let the losers fall. Several proposals have been put forward, including that of a Universal Basic Income, in conjunction or independently of social security measures other than unemployment benefit. A vision for a Universal Basic Income that is granted without any responsibilities is a policy that we find highly problematic. That vision equates work with a purely financial benefit. For us, work is far more than that: it is about dreaming, achieving, belonging, contributing, being useful, having a role in society, having a vision, an ambition.

---

<sup>8</sup> See 'The 10 Skills You Need To Thrive In The Fourth Industrial Revolution' (*Alex Gray*, 2016) <<https://www.weforum.org/agenda/2016/01/the-10-skills-you-need-to-thrive-in-the-fourth-industrial-revolution/>> accessed 11 January 2018.