European Parliament

Digital automation and the future of work

Securing a digital future that works for all

The policy options proposed in this briefing derive from a STOA report that examines how digital automation will likely impact the volume and quality of jobs. The report identifies threats to job quality, and an unequal distribution of the risks and benefits associated with digital automation. In response, the report recommends a policy agenda which goes beyond skills and training to address issues with sector-level intelligence and which emphasises a human-centred approach to digital transformations of work, based on industrial democracy and social partnership.

1. Skills and training provision

Option 1: Industry and sectoral skills alliances that focus on facilitating transitions for workers in 'at risk' jobs and reskilling for workers in transformed jobs

The report makes clear that one of the greatest challenges for states and employers responding to structural change in the labour market and changes to occupations is the uncertainty and lack of empirical evidence about the effects of new technologies on work and employment. Given this fact, the report recommends drawing on the perspectives and experiences of key stakeholders – including industry representatives, trade unions, and education and training providers – through the formation of new sectoral alliances, modelled on the EU's blueprint for sectoral cooperation on skills. These alliances would gather and share intelligence on the anticipated effects of digital technologies on the volume and skill content of jobs. The alliances could collect strategic evidence about: areas of job decline and jobs 'at-risk' of automation; the scale, nature and pace of labour market transformation at sectoral, regional and occupational levels; the scale and dimensions of emerging skill needs; and the scope for training and educational reforms.

By identifying the sectors, industries and occupations that are likely to experience the greatest change as a result of new technology and determining the timeframe within which this change is likely to take place, it will be possible to target policy interventions which limit maladjustment and provide the best outcomes for employment growth and skills utilisation. The new strategic alliances would draw upon the knowledge of the actors best positioned to develop a proactive approach to labour market intervention and the provision of education and training, developing policies and programmes that can best manage the effects of job destruction and transformation.

2. Digital work-life balance

Option 2.1: Establish a European 'right to disconnect'

One problem with digital technologies, from email to smart phones, is that they tend to extend the length of working time and blur the divide between work and life. In response, the report proposes an EU-wide 'right to disconnect'. Some individual EU countries have sought to implement a 'right to disconnect' – the proposal in the report would seek to enshrine this right in EU law. A new EU-wide 'right to disconnect' would require that employees have the right not to answer or send emails or other

work-related messages outside normal office hours. A new law would help to protect free time and prevent an 'always on' culture fostered by digital technologies.

Option 2.2 – Lower the EU Working-Time Directive (WTD) provisions to 38 hours per week and remove the opt-out clause

The report sets out two further policy options. Firstly, it suggests that the working time provision in the EU WTD be lowered to a maximum of 38 hours per week. It is recognised that, in the short-term, this move would cause disruption for some Member States and employers. In this sense, a phasing in (by negotiation) may be agreed by Member States. More radically, the report suggests removal of the opt-out clause and the move to collective agreement on a cut in working hours. The intention in lowering the limit in the EU WTD would be to ensure that, where gains in technology accrue, these feed through to reductions in working time. Reform of the EU WTD, in this case, could help to improve the balance between work and life, and provide EU citizens with more time away from work.

Secondly, in the longer-term, the report sets out a policy option for a broader commitment to an average 30 hour working week by 2050 across the EU. This commitment represents the ideal of realising in society the basis for expanded free time, with technology adding to people's ability to live better lives beyond work. It is recognised that this is a radical and ambitious proposal, but it would highlight the large body of empirical evidence which supports the benefits of shorter working hours in terms of individual health and wellbeing and organisational performance. The report argues that cuts in working time should be linked to progress in technology and should be put at the centre of an agenda for the creation of a more sustainable and equitable economy. An EU-wide commitment to a 30 hour working week would be a major step towards achieving such an economy.

3. Governance

Option 3: Worker representation, company reward schemes and workplace governance

The report proposes that the best way to protect jobs and decent work is an approach to technological change that is embedded in industrial democracy. This means the involvement of workers, whether through trade unions or other representation, in the development, introduction and operation of new technologies in the workplace. According to one of the policy options, governance could be strengthened through employee representation on company boards, combined with capping the voting power of large shareholders and the expansion of share ownership schemes for employees. The EU could consider tax incentives for those technology-driven firms which extend employee representation and share ownership schemes to workers. Further, the report puts forward the option of encouraging worker ownership. This would entail support for policies designed to incentivise worker ownership, from loans for cooperatives to the development of funds that enable workers to become co-owners of platforms. The principle here would be to ensure that the gains from digital automation are more evenly spread across society.

4. A duty to report directive

Option 4: A new directive for the regulation of technology at work

Lack of regulatory oversight creates uncertainty as well as potential inequities in the evolution and effects of digital technologies. To address these issues, the report proposes a new directive to require firms to report on the impacts of digital technologies on jobs, wages and the quality of work. This directive would provide new data on the effects of digital technologies on workers and a mechanism to make employers accountable for choices around technology, work organisation and job design. Reporting could include measures of the quantitative effect of technology on jobs, such as projected

job losses and changes in working hours, as well as measures of decent work at the firm level. The proposed directive would:

- Establish a duty whereby firms (employing over 50 employees) are required to report on any technological change that will affect the work and employment of their employees;
- Require EU Member States to identify or establish a regulatory body to oversee reporting by firms on the use of digital technologies in the workplace;
- Require worker representation in the regulatory body concerned with the impact of new technology on economy and society;
- Enable new technology agreements in collective bargaining arrangements at sectoral and firm-level.

The report shows that questions of systems design, work organisation and job quality that accompany the development and implementation of new technologies at work tend to be complex, qualitative and sector- or even firm-specific. While it may be desirable to specify broad parameters or principles of technological change to be regulated in high-level central or industrial technology agreements, it may be more effective to facilitate these objectives through enabling the joint regulation of new technology at the firm or enterprise level. The purpose of the proposed directive would be to open up space for such regulation, by placing new reporting responsibilities on individual firms.

The directive would also introduce a technology information and consultation duty whereby workplaces undergoing significant reorganisation or restructuring as a result of technological innovation would be obliged to make technological changes an item for information and consultation with employees, with legal enforceability. This would involve updating Article 27 of the EU Charter of Fundamental Rights to create an explicit duty on employers to ensure employee involvement in decisions about technology that affect their work and employment. While clearly a radical move, a new duty to report directive would help to create more transparency and democratic accountability around digital automation. This policy option would support the goals of more equitable governance outlined above.

5. Mission-oriented industrial policy

Option 5: Direct EU involvement in the design and diffusion of digital technologies to ensure decent work objectives are achieved

The report stresses that the effects of digital technologies are not determined by technological capabilities alone but are influenced by the organisational, economic and social context in which they are used and as a result of choices made about how and why they are deployed. As such, digital technologies need to be managed in ways that maximise societal wellbeing and, to achieve this, the report sets out the option that that EU Member States define and lead the innovation process through the adoption of a strategic, mission-oriented[1] approach to digital automation. There is support for the adoption of a mission that aims for an automated future that works for all – offering high quality jobs, the reward of higher living standards and fewer hours of work. This would place the creation of decent work at the centre of the digital single market and the coordinated plan on artificial intelligence (AI), embedding it as an objective in all existing and proposed policy and legal mechanisms directed at the development of AI and AI capacity. Specifically, this would mean developing provisions which ensure that, where AI is introduced into production and business processes, it contributes towards wellbeing through the creation of better jobs and, where AI technologies improve productivity and

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[1] Mazzucato, M., 2016. 'From market fixing to market-creating : a new framework for innovation policy'. *Industry and Innovation*, 23 (2): pp. 140–56. https://doi.org/10.1080/13662716.2016.1146124

competitiveness of European business and industry, the rewards are distributed equitably – including via shorter work hours (see the second policy option above).

These objectives could be achieved through EU-funded and democratically governed research that draws on the strength of social partnerships to inform the direction of technological progress, including the development of thresholds for job quality, which could be monitored and applied using impact assessments and auditing at three critical stages of the AI cycle, defined as: (i) development and generation of technology; (ii) diffusion and deployment of technology; and (iii) distribution of gains. This approach to industrial policy would be consistent with an inclusive growth agenda, with the focus on creating an environment where digital automation meets standards of decent work, while extending free time. In sum, the approach to policy would be to ensure that digital technologies deliver for the many, not just for the few.

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