Hearing 1, Work Stream "Future of Work and of Welfare Systems"

# *The Automation of Labor: Reflections on Technology and Regulation*

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The development of technology and in particular Web 2.0, digital platforms, robotics, algorithms, and data-driven businesses are currently affecting labor in an unparalleled manner. In a nutshell, human judgment is being replaced by algorithms, professional labor by unskilled work (for example, in the context of the collaborative economy), and employment protection by labor and social welfare uncertainty. In addition, while robotics promises additional support in different areas where additional workforce might be necessary in the long-run such as elderly care, it has also been argued for decades that robots would threaten the existence of numerous jobs in Europe. As robots slowly become able to perform a higher number of tasks, this menace as well as the legal implications of this form of labor appear to remain unclear. Considering the innovative potential of automation in labor, law and policymakers should also reflect upon the need to find solutions that do not stifle innovation and reflect an understanding of the functioning of technology. To illustrate, ethnographic research performed in the media industry in the United States shows that the use of big data to assess employees produces mixed results: on the one hand, the use of algorithmic metrics as external evaluation instruments and as self-tracking can help employees think more strategically about their output.[1] On the other hand, this studyz also shows that employees subject to this type of automated metrics also experience feelings of demoralization, anxiety, and self-doubt.

Following the first hearing organized by DG Employment, Social Affairs & Inclusion on May 31st, 2016, I would like to contribute to the discussion on the main trends impacting the labor market first by providing some insights on the importance of regulating these new developments in an innovation-friendly manner; and second by underlining the need to analyze the impact of digitalization from a law & technology perspective.

[1] Caitlin Petre, 'The Traffic Factories', (2015) Tow Center for Journalism: Metrics at Chartbeat, Gawker Media, and *The New York Times*, full report available at http://towcenter.org/key-points-from-the-traffic-factories/

As far as the first point is concerned, I would suggest the adoption of policy or legislative/regulatory experiments which would allow policymakers at both national and EU level to gather evidence as to the benefits and risks of some of these trends in the labor market. As the background paper outlines, in the context of labor in the digital economy, we observe the so-called "pacing gap" between technology and social protection and law. It is true that thus far the public dialogue has been highly polarized involving either the demonization of technology or the idea that innovation is important because it increases living standards, offers a broader array of better and more affordable products. Policy and legislative experiments might offer a compromise in this context.

Experimental dispositions allow for the adoption of temporary rules derogating from existing rules so as to verify whether these experimental rules are more effective than the previous ones, gather more information about their potential risks, and allow for more rapid adaption to changing phenomena. Policy experiments with the duration of three to five years, implemented in parts of a jurisdiction (sample group) are far from being novel evidence-based instruments in Europe. Rather, as my work suggests, experimental regulations and policies have been implemented in different countries including Germany, France, and the Netherlands.[2] An experimental approach to the regulation of innovative phenomena in labor law fits the "step-by-step approach" which is warranted in EU Law and has also been put in practice in other areas (*e.g.*, with REACH which was implemented in different phases). In addition, despite the skepticism of some lawyers, policy experiments and legislative experiments are compatible with EU law as long as they are implemented according to objective principles. As Advocate-General Maduro argued in *Arcelor*, experimental dispositions do not violate the principles of equal treatment (or legal certainty): although "[i]t is . . . in the very nature of legislative experimentation that tension with the principle of equal treatment should arise…Experimental measures must first of all be transitory (…) second, the scope of the trial measure must be defined in accordance with certain objective criteria."[3] I would add that the duration of

[2] For a thorough analysis of experimental legislation in the Netherlands, Germany, and the United States, *see* Sofia Ranchordás, *Constitutional Sunsets and Experimental Legislation: A Comparative Perspective* (Edward Elgar, 2014); Sofia Ranchordás, 'The Whys and Woes of Experimental Legislation' (2013) 1 *Theory and Practice of Legislation* 414. For an analysis of experimental legislation in France and Belgium, *see also* Sofia Ranchordás, 'De vele gezichten van experimentwetgeving' (2013) 1 *Tijdschrift voor Wetgeving* 2 (in Dutch)

[3] Opinion of the Advocate-General M. Poiares Maduro, Case C-127/07, *Arcelor* v.*PremierMinistre*,[2008] ECRI-9895.

experiments should also meaningful so that enough evidence is gathered and there should be a realistic commitment to their evaluation.

Policy experiments can be interesting options for the regulation of automation at European level since the effects of technology in the labor market in the medium and long-run remain uncertain. A step-by-step approach that does not stifle technology but regulates it with caution might be a more balanced option. Although I do not advocate the adoption of an experimental directive in the context of the European Pillar of Social Rights, Member States can be encouraged to experiment with different forms of implementing certain aspects of it related to the impact of technology.

Regarding my second point, I would like to draw attention to the use of artificial intelligence, big data, and algorithms in the workplace. Many of these new metrics and forms of replacing human judgment are quite opaque for the average worker who might not understand how her performance is being evaluated. Transparency at this level along with the potential option of self-tracking might help workers have a better perception of how they are being evaluated. It is important to underline that these automated tracking mechanisms can enhance stress and increase pressure to perform since algorithms are more objective, might not take into account subjective factors and social judgments, or might be influenced by hidden biases.[4]

The use of automation has also enhanced the increasing de-professionalization of labor and the use of unskilled work and crowdsourced work (*e.g.*, Mechanical Turk). In addition, investment in human capital has been at times replaced by investment in technological capital, namely in 'smart algorithms.' Automation has been received with opposition since professional associations have been critical of this de-professionalization of labor. While some of these developments are worrisome when it comes to social protection of workers, technology has made us rethink the need for modern "guilds". That is, many professional organizations might be more interested in protecting special interests rather than improving the quality of work and labor protection. We know that in the past some innovations were stifled by professional associations because of the fear of unemployment. However, stifling technology is not a necessary side-effect of labor protection. Therefore, alternative policy solutions that offer compromises should be

[4] *See* Frank Pasquale, *The Black Box Society: The Secret Algorithms that Control Money and Information* (Harvard University Press 2015).

sought. Self-regulation that privileges special interests should be analyzed with caution. I conclude this brief contribution by returning to my first point: such a compromise might reside in the ability to experiment with new policy and legislative solutions, that is, to try and see what works and what does not while achieving greater transparency when it comes to the use of automation in the workplace.