
Power Struggles Surrounding AI-Powered Digital Technologies in the EU Manufacturing Landscape: The Present and Future of Labour Rights, Governance and Social Dialogue

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Abstract

The EU's recent legislative efforts to regulate technology have arguably fallen short in integrating the protection of workers' rights in highly automated workplaces (Altenried, 2020; Oosthuizen, 2022). The present research explores this potential gap through the following hypothesis: **the EU's legislative framework insufficiently addresses how digital technologies influence workers' agency, working conditions and wellbeing within current manufacturing workplaces.**

40 semi-structured interviews were conducted with two stakeholder groups: representatives of (a) employees and (b) managers of workplaces which deploy digital technologies. The interviews are analysed through the lens of Labor Process Theory (LPT) (Braverman, 1974). (1) Current public policy initiatives aimed at upskilling workers, enhancing algorithmic transparency, and regulating the presence of AI in the workplace (Rafner et al., 2021; Buchbinder et al., 2022; Selwyn et al., 2023) underscore the timeliness of the author's analysis. In this context, LPT plays a crucial role in identifying the influence of contemporary digital technologies and highlighting areas where policy improvements are needed.

Most interviewees, echoing Braverman's concerns, pointed to the significant impact of AI-powered technologies on workers' decision-making, task allocation, autonomy, workplace relations, cognitive overload, stress, privacy, and bargaining power. The varied perspectives uncovered during the interviews reflect growing tensions in the workplace and beyond, where a resurgence of unionisation and collective bargaining is challenging the long-term decline of organised labour in traditional industries.

Overall, interviewees identified four key areas where social dialogue actors should exercise greater influence. These include: (i) revisions to both soft and hard law, (ii) the development of related instruments such as standards, enforcement bodies, certification schemes, and design protocols, (iii) changes to the hardware and software of digital technologies-particularly with regard to local infrastructure, intermediaries, greening policies, and non-profit-driven solutions-and (iv) the expectations placed on employees in their interactions with these technologies, addressing issues like skills development, agency, privacy, job satisfaction, and future employability.

In summary, participants pointed out that EU policies focus on transparency and upskilling,

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while often overlooking the aforementioned psycho-social issues, coupled with growing competition and uncertainty in the digital economy. This research, therefore, offers policy recommendations aimed at reinforcing trust, enhancing worker agency, and exploring alternative technological trajectories in the face of platformisation and automation. By framing the manufacturing shop floor as a site of struggle, this study broadens the scope of digital labour research, extending it beyond platform work and reaffirming the urgent need to integrate labour rights into Europe's digital transformation.

Keywords: automation, labour rights, governance, autonomy, AI, digital technologies, social dialogue