



**ARTIFICIAL
INTELLIGENCE**

MEETS SAFETY AND
HEALTH AT WORK

Algorithmic management meets EU law

Integrating data protection,
non-discrimination and
collective rights to curb the
powers of ‘automated bosses’

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Artificial intelligence meets safety and health at work
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AI & algorithms in workplaces

Mapping the workers' experiences

“ How are Italian and Spanish “ordinary” workforces managed by workplace tech?



Regulating algorithmic bosses

A multidimensional, anticipatory and participatory approach

“ Is the existing legal framework suitable to address the augmented power of algorithmic bosses?



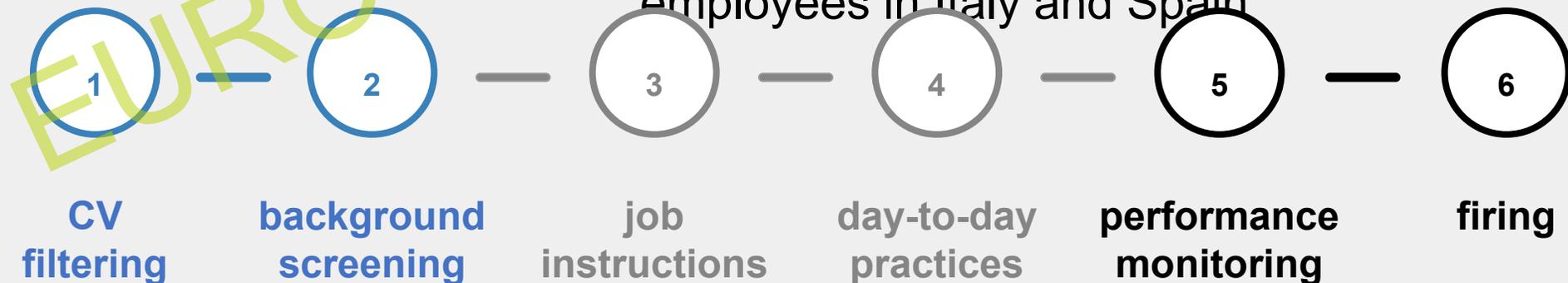
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The workers' experiences
Boss ex machina:
the marvel and the menace



automation vs augmentation

- **Augmenting** the full range of an employer's traditional functions (organisation, control and disciplinary powers)
 - Still left relatively undetermined is the workplace-level penetration
 - To meet this gap, we map the **concrete experiences** of a group of private-sector employees in Italy and Spain





- Reduced agency
- **Micromanagement**
- Excessive self-reporting
- **Constant monitoring and assessment**
(co-workers & customers)

- **Rudimentary organisational model**
- Dysfunctional technologies
- **Non-meaningful data**
- Arbitrariness of company decisions

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Job-intensification (workload, tempo and working time)

OSH effects → psychosocial risks



findings: wrap-up

- New management practices (**assistive and executive**) interact with **pre-existing authority structures and features**
 - organisational structures have a relatively more important weight in explaining the impact on workers' conditions
 - workers' **discretionary power is constrained**
 - definition of goals, the methods, the speed
- Scarce penetration of modern tools
- Managers using tech to **expand and routinise their authority**
 - amplification of the centres of power

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- Workers are witnessing a shift **from direct observation to technocratic control**
 - Not confined to workplaces and working time
- **Not matched by the counterweights defined by the legislature/statutes or collectively negotiated by social partners**
 - **Human bosses** are far from perfect
 - EU legal frameworks constrain how managers must go about taking decisions
 - Modern legal systems develop **practices in confronting flaws in human decision making**



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Theory and regulation
Legal avenues
to tame algorithmic bosses



wearables, AI & algorithms in workplaces

○ what's new?

The problem

- Algorithmic management involves:
 - A **slow, undetected and gradual shift** at different paces in different industries
 - An **invisible** trend that is also **faceless**, leading to a **chilling effect**
 - Competitive entitlements differentiated in a **tailor-made, evolvable** or **unintuitive** way
 - A perception of being **innocuous**, presented as a **magic wand** for solving problems related to **OSH**, human subjectivity, bottlenecks, and systematic disparities in regular workplaces



wearables, AI & algorithms in workplaces

- the legal context

The solutions

- Labour law **moderates** the **unilateral discretionary power** of the dominant party by deploying controlling factors
 - **Are existing countervailing forces limited** as they were designed upon forms of power that were significantly less sophisticated than today's technocratic authority?
 - A **convergence** towards more encompassing and dissuasive methods
 - **Re-engineering strategic litigation**, by deploying responsive strategies to limit abuses before they are perpetrated



leveraging uncertainty

- Misplaced emphasis on **transparency** (along the lines of the “black box” metaphor)
 - Such rhetoric shifts attention to inner workings, rather than **external effects**
- Worker reps can rely on **evidentiary tools** that **leverage the lack of information**
- The benefits of this **uncertainty principle**
 - Placing the **burden** on employers to deploy processes that are reasonable and reportable
 - **Instrumental** rights for **changing decisions** and laying the groundwork for a grievance



a cultural paradigm shift

- ❑ ~~Retrospective~~ and complaint-led answers
 - Issues mobilised in isolation + ex-post **damage-control approach**
- ❑ **More strategic**, less litigation

multidimensional
business practices are shaped, not only

collective
involvement of workers' reps as a "force multiplier"

preventive
pro-actively fostering equality & accountability

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data protection

- Two roadblocks:
 - **Inferential analytics** –detecting correlations and patterns– could escape the GDPR
 - The **opacity** is as an obstacle to the legibility
 - **Code mutates** after a decision is made
- This underestimates or obfuscates the **role** of the programmers, providers or users who:
 - **Decide to adopt** tools to pursue goals that could be achieved by less intrusive means
 - **Introduce key commands**
 - **Validate the original datasets**



association (*Coleman*),
proxy (*CHEZ*, residency),
reluctance to provide data
(*Meister* → Art. 15 GDPR)

intent does not
matter + **simplified**
burden of proof
(triggering *ex ante*
compliance)

Discrimination litigation:
effects are crucial, **no need**
to “**open the black box**”



A relational approach
towards data
legibility & equality



Art. 9 **health data** is not
processable, but... OSH
exception!

Art. 35 **DPIA**
(risk mitigation)

Art. 13, 14, 15
information &
access rights

Art. 22 **ban on ADMS** & profiling
(work-related exceptions +
objection & human intervention)

Recital 71 (**explanation**)

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overcoming the current limitations

- Algorithmic management’s “**harms** typically arise from how systems classify and stigmatise **groups**”
- This intrinsic “**data network effect**” requires **responses** at the **collective level**
 - Data protection law is rather **individualistic and defensive in nature**
 - Non-discrimination struggles to capture the **disparate effects stemming from ADMS** affecting persons with characteristics outside the circle of protected grounds
 - **comparisons** not easy at the individual level



workers are not defenceless

3. co-design & training

Workers are in the best position to **draw up internal rules** due to their **knowledge of operational practices** and hurdles

Workers' reps can foster **digital literacy** + rely on **experts**

2. multistakeholder risk-assessment and ex-post litigation

- Trade union representatives: (i) participating in the **DPIA** + (ii) filing **claims** before a court and exercising data protection rights before the employer or the **DPA** "independently of a data subject's mandate" (Art. 80 GDPR).
- The same rights are laid down in the proposed **EU Dir. on Platform Work** (Art. 14)

1. consultation & co-determination

From the earliest phases when companies are considering the installation or **revision** of electronic devices

Lawfulness for data collecting and processing (Art. 5 + 88 GDPR)



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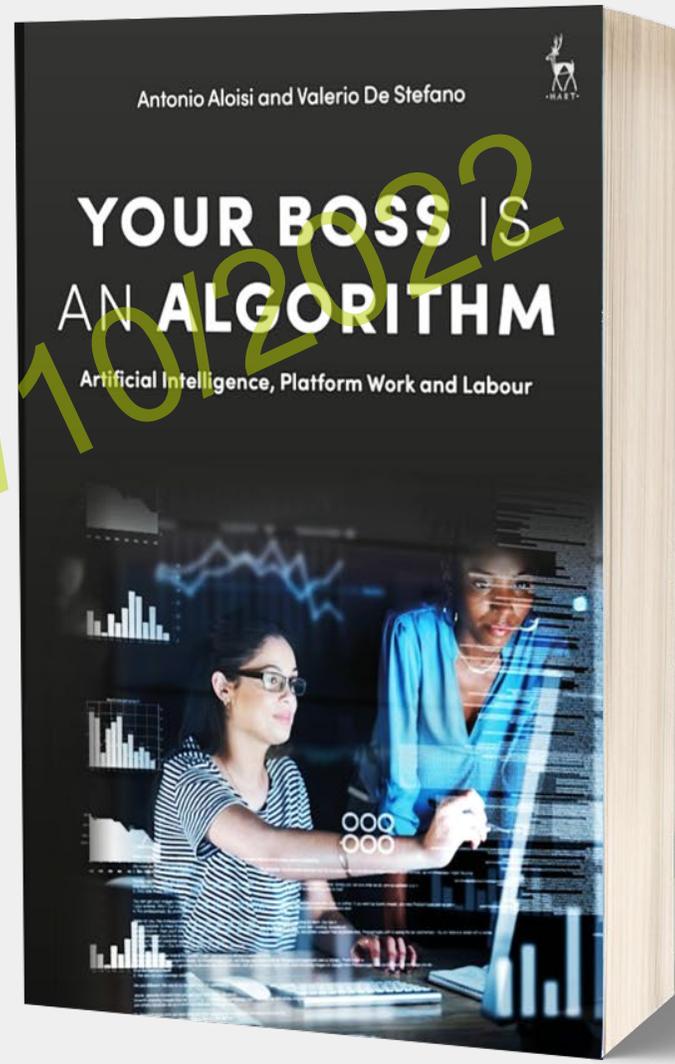


*thank
you!*

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