



**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?



- A -

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**

P R E S S U R E

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



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**



- A -

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

preventive
pro-actively fostering equality & accountability



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:

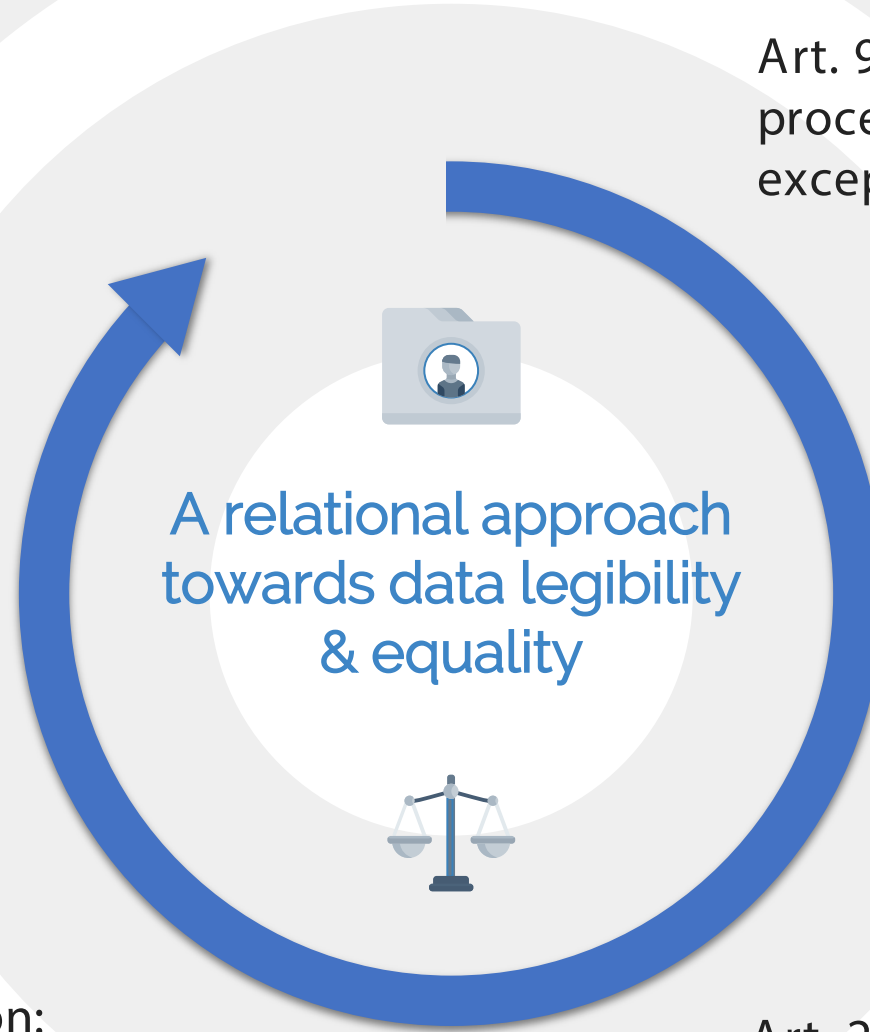
- **Decide to adopt** tools to pursue goals that could be achieved by less intrusive means
- **Introduce key commands**
- **Validate the original datasets**



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”**



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**)



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



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)

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)



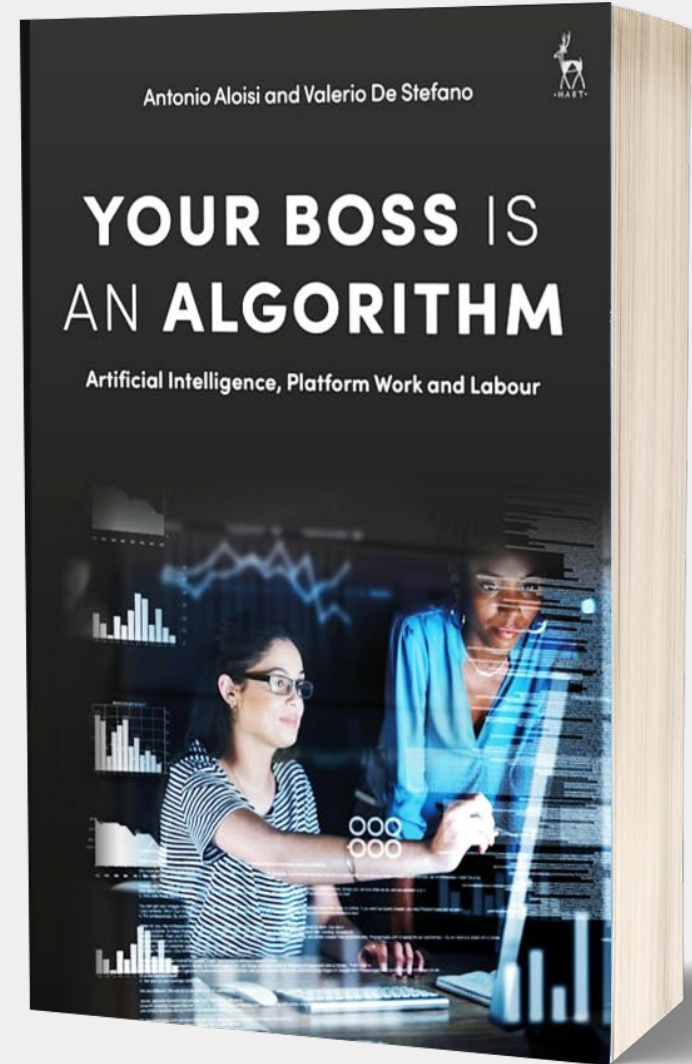
thank you!

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