



Virtual sticks and carrots: Italian labour law implications of gamification*

by Carmen Di Carluccio

The digital era has revolutionized the way work is managed and executed. In this scenario, algorithms and digital systems effectively take on the role of employers, guiding and controlling workers' activities: they are able to determine everything, from task assignment to performance evaluation, creating a digital narrative in which the worker acts according to a script written by the software. It is no coincidence that the term "algorithmic subordination" is used to indicate a new frontier in human resources management.

This emerging concept is deeply interconnected with the gamification of work: components and principles of the game are used in workspaces to tap into the impulses that push people to compete, be proactive and creative, and fully develop their abilities, in order to increase the motivation and performance of workers.

The principle underlying gamification systems involves incorporating "fun" into professional activities, household chores, education, sports, and more through the use of multifunctional devices, electronic media, techno-gadgets, etc., which adapt to the user's profiles to foster motivation, involvement and creativity. These systems leverage the human predisposition to play and the competitive spirit apparently inherent in all individuals, regardless of age. The emphasis is on spontaneous, enjoyable and fun participation, which increases users' commitment and efficiency in carrying out their tasks. By enriching work activities with motivational and fun elements, gamification helps to reduce the alienation associated with performing boring and repetitive tasks, contributes to reducing stress levels, increases satisfaction and well-being, and promotes the development of a sense of belonging to the work community. From this perspective, gamification could be seen as both a work engagement technique that effectively involves workers making them satisfied with their jobs and engaged with ever greater vigor, dedication and immersion, and as a valuable communication tool that supports employer branding for the development of the organization's reputation (and not only).

This vision of work gamification as a dynamic and compelling strategy that enables the valorization of human potential within organizations becomes incomplete if we take into account the actual implementation of these methodologies in work contexts.

Upon closer inspection, gamification, increasingly driven by digital technologies, is a tool that responds mainly to entrepreneurial interest that, in the long term, risks distorting work dynamics. In fact, it provides the companies with means to improve processes (such as decision-making, organization and production), to select and organize the labour based on the criteria of greater efficiency and productivity. However, it also introduces mechanisms to measure and control

workers, potentially leading them to work more, but not necessarily more willingly or in a genuinely satisfying manner.

Gamification emerges as a crucial, rather than secondary, supporting actor for algorithmic subordination. When work is transformed into a game where employees climb rankings, earn points and/or receive prizes, it becomes easier to evaluate their real performance, monitor their conduct, outcomes and timing in real time, verify their teamwork abilities, problem-solving skills, attitudes, effectively generating «measurement-saturated environments» (Zappalà, 2022, 113). But it doesn't stop there.

These techniques allow to “shape” more motivated employees by pushing them to “spontaneously” adopt certain behaviors without resorting to forms of external constraint, but rather using “virtual carrots and sticks”. The gradual loss of spaces of autonomy and self-determination by the employee is accompanied by dynamics of dependence and involvement that persuade them to give their utmost effort, even beyond their physical, mental and attitudinal capabilities. It is no coincidence that some have provocatively resorted to the paradigm of the “hamster man” (Ruggiu, 2021) to describe this condition: the worker is induced to run inside the great wheel of production driven by the game design elements that act as a “doping agent”.

The interaction between algorithmic subordination and gamification is evident in companies that adopt digital technologies to manage and motivate their workforce. Platforms such as Uber, Glovo or Deliveroo, pillars of the gig economy, are clear examples of this trend. In this context, gamification is not merely a “trick” to boost productivity; it becomes a central element of management strategy, encouraging efficiency through objectives, rewards and immediate feedback. The gamification-driven work management model operates according to a “carrot and stick” dynamic: workers are motivated to align their behavior with the company's objectives either through incentives, rewards and/or benefits that increase their earnings (financial bonuses, recognition, job promotions, compliments or any other type of gratification that motivates people to act as expected of them), or through indirect sanctions that discourage actions deemed negative by the company (these punishments might include warnings, financial sanctions, dismissals, suspensions or any other form of unpleasant consequence that discourages people from acting inappropriately).

This approach, as anticipated above, has a dark side that manifests in the constant supervision and pressure to meet performance standards set by algorithms. This modern form of subordination increasingly influences or determines human decisions through digital systems. In other words, this dynamic creates an environment where workers' actions are constantly shaped by the company's interests, establishing a new form of subordination, no longer based on direct orders and constant supervision, but mediated by the algorithm developed and managed by the company itself. Algorithmic subordination raises crucial questions about autonomy and control over work (and not only), and gamification can exacerbate its negative consequences. On the one hand, gamification can be a source of motivation, offering workers a sense of involvement and accomplishment in achieving goals and overcoming challenges. On the other hand, it can turn into a mechanism of indirect control, where workers find themselves trapped in standards and goals defined by algorithms, often without a clear understanding of how these goals are set or how their efforts are evaluated.

This scenario can create an oppressive work environment, potentially leading to feelings of exhaustion and exploitation. In particular, by inducing people to work longer hours and at more intense paces (as the game uses variable scales to condition players to play “just one more round”, capable of transforming the game into an almost “hypnotic” experience: Mason, 2019) and by

subjecting workers to permanent comparison with evaluation metrics and invasive control systems (with the fear of suffering sanctions if they fail to meet the productivity standards predefined by the company management), the gamification of work can constitute a breeding ground for the emergence or proliferation in particular of the so-called psychosocial risks. The constant use of a gamified application, as well as the excessive use of any digital media, has direct effects on the physical or mental health of workers, as well as on the balance between work and family life.

Furthermore, behind these “games” may lie invasive and widespread forms of control, but also automated data processing, potential investigations into workers’ personal opinions, and mechanisms to monitor imprudent and/or unproductive individuals possibly leading to disciplinary (and expulsion) procedures. These systems may also link productivity, measured through the game, to incentive pay treatments or promotions and/or demands for specific performances often without any further form of additional remuneration.

Gamification therefore presents the labour system with delicate challenges in dealing with the regulation regarding the employer's power of control, the collection and processing of worker data – including data relating to their private sphere – in addition to exacerbating the critical issues arising from algorithmic opacity and the "dematerialization" of employers' powers. These challenges also extend to concerns about worker health and safety, as well as the need for a proper work-life balance.

Given the risks mentioned above, it is essential to consider the ethical impacts of these practices and ensure that gamification strategies do not exploit or harm workers.

While gamification has enormous potential (especially if we think about its application for employee training or customer loyalty), it must be carefully balanced with privacy and ethical standards for respecting workers' autonomy and well-being.

This new level of complexity not only challenges companies to rethink their strategies, but also offers the opportunity to reshape gamification in a way that respects and values workers, aligning with a sustainable, more humane and equitable future of work. “Resistance” gamification appears as a potential counter-proposal for a redefinition of the concept through worker-friendly practices, subverting or redirecting the principles of conventional gamification (Vidigal, 2021).

The focus here is on worker empowerment rather than merely serving corporate interests. The aim is to create a more equitable and balanced work environment where workers have more control over their working conditions. This involves implementing gamification systems that encourage collaboration rather than competition, offer rewards for healthy and sustainable work practices, and promote awareness of workers’ rights and well-being. Examples include apps and platforms that allow workers to rate working conditions and share information about unfair practices. These reward systems value work-life balance, rather than focusing solely on productivity. Additionally, there are initiatives that use game elements to educate workers about their rights and promote unity and collective action.

This involves ensuring algorithm transparency, promoting informed consent in data collection and ensuring that such practices do not become tools of exploitation or excessive pressure on employees. It is crucial to preserve the health (including mental health) of workers, even beyond – or against – their wishes. To achieve this, the introduction of gamification systems must be preceded by an assessment of the risks associated with these systems, followed by the identification and adoption of adequate measures both in terms of prevention and protection for health and safety at work (as already required by Italian prevention legislation, following that of the European Union)

and in terms of protection and management of personal data and transparency (as required by the legislation deriving from the intertwining of the discipline of the Workers' Statute on controls and the prohibition of opinion investigations, the principles on privacy and the specific information regime on algorithmic management introduced most recently by Legislative Decree no. 104/2022).

Italian (and EU) case law demonstrates a growing awareness of the reality of algorithmic subordination and its implications for labour law, suggesting a promising path for the protection of workers in the digital age, balancing technological innovation with justice and respect for fundamental rights (as evidenced by the judgments concerning riders). A strengthening of this perspective also seems to emerge from the directive on the improvement of working conditions through digital platforms and the newly-formed European regulation on artificial intelligence. In the European context, transparency (i.e. awareness of the fact that one is interacting with a machine, information about the use of biometric categorization or emotion recognition systems, etc.) and human surveillance (i.e. involvement of the human operator in the life cycle of the system, but also on the more comprehensive level of risk assessment and management, in terms of periodic verification of the impact of automated decision-making processes on the rights and freedoms of the subjects exposed to such decisions, as well as in terms of data quality) constitute the precondition for making an AI system trustworthy. In this way, it is possible to guarantee an anthropocentric and respectful approach to individual rights in the work context and beyond.

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Carmen Di Carluccio

Associate Professor of Labour Law at the University of Campania "Luigi Vanvitelli", Department of Law

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