Chapter 12
Automating employment: a taxonomy of the key legal issues and the question of liability

Teresa Rodríguez de las Heras Ballell

1.   Setting the scene. AI and employment: a proposal for a taxonomy

Automation is probably the hallmark of our time. Automation is pervading society and extensively penetrating business activity and economic relationships, encouraged by numerous expected benefits and perceived efficiencies. It arguably does provide efficiency, dramatically reduce transaction costs, optimise processes, enable the efficient processing of an enormous amount of data and assist decision-making in complex and uncertain contexts.

Within this trend, automation has also penetrated the workplace and employment relationships. Algorithmic and AI-driven systems are extensively and increasingly employed in recruiting, promoting, monitoring or evaluating employees' work performance, planning and allocating assignments and, in a variety of industrial activities, developing mechanical procedures and conducting predictive and calculation-based tasks in the workplace.

Several legal issues arise from the intensive and extensive use of automation for such a variety of purposes related to employment, and a cascade of legitimate legal questions has been triggered. Is automation licit in employment? Should the use of AI be acknowledged and permitted by the law? Are automated decisions valid and enforceable, even for decisions susceptible to having an impact on workers' rights? To whom should the legal effects of such automated actions and decisions be attributed? Who is responsible for monitoring the outputs or mitigating the biases of the AI system? And who is liable for the damage caused by AI in the workplace or when used for employment purposes?

1.1   Assembling the pieces of a legal framework governing the use of AI in employment

A complete, consistent and solid legal regime providing for rules governing the use of automation in employment-related contexts is lacking. Some rules, scattered in various pieces of legislation, do provide guidance on the construction of a reasonable legal framework. But the effort to fill the gaps, infer principles, accommodate general rules to the employment context and even propose new provisions has still to be made to establish a sound and predictable body of rules governing the use of AI in employment.

Thus, the EU's future AI Act[1] does not provide a complete body of such rules and only incidentally refers to employment in qualifying certain uses as 'high-risk' AI systems. At the core of the AI Act lies a risk-based model that classifies AI systems on the basis of intended use (unacceptable risk/high risk/limited or minimal risk/low risk). The list of high-risk AI systems includes AI for work management.[2] Nevertheless, the sectoral law requirements applicable to such systems, even if they are harmonised at EU level, are not incorporated in the certification process, based as it is on self-assessed conformity with EU rules and CE marking. AI systems classified as high-risk are permitted on the European market subject to compliance with certain mandatory requirements in relation to data and data governance, documentation and record keeping, transparency and the provision of information to users, human oversight, robustness, accuracy and security, as well as to the ex ante conformity assessment.

The proposed directive on platform work explicitly addresses algorithmic management, providing for seemingly attractive rules and solutions, but the scope of application seems to be restricted to platform work[3] whereas AI is intensely used in a multitude of employment contexts that do not qualify as platform work and, indeed, in those where no platforms are involved at all. The scope of application of the proposed directive is defined by the concept of platform work – that is, as Recital 5 clarifies, work performed by individuals that, through the infrastructure of digital labour platforms, provides a service to customers. Nonetheless, it is not completely clear whether platform workers are all workers working for a platform or only those whose work 'is organised through a digital labour platform'. Thus, while it is evident that the work done by drivers or couriers for popular platforms is defined by the proposed directive as platform work, the definition of other tasks and job positions related to the running of such platforms is rather ambiguous and uncertain (regarding, for example, workers in warehouses or in other corporate departments). The connection with algorithmic management seems to invite the consideration of a narrower definition of platform work which excludes the latter.

---

1. Proposal for a regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) and amending certain Union legislative acts, COM/2021/206 final.

2. As per the drafting of the text of 14 June 2023 – P9_TA(2023)0236 Artificial Intelligence Act. Amendments adopted by the European Parliament on 14 June 2023 on the proposal for a regulation of the European Parliament and of the Council on laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) and amending certain Union legislative acts (COM(2021)0206 – C9-0146/2021 – 2021/0106(COD))1 (Ordinary legislative procedure: first reading), Annex III, paragraph 1, point 4.b): 'AI systems intended to be used to make or materially influence decisions affecting the initiation, promotion and termination of work-related contractual relationships, task allocation based on individual behaviour or personal traits or characteristics, or for monitoring and evaluating performance and behavior of persons in such relationships'.

3. Pursuant to Article 2(1) of the directive on platform work, the provisions apply to work organised through 'digital labour platforms' which are defined as follows: 'digital labour platform' means any natural or legal person providing a commercial service which meets all of the following requirements: (a) it is provided, at least in part, at a distance through electronic means, such as a website or a mobile application; (b) it is provided at the request of a recipient of the service; (c) it involves, as a necessary and essential component, the organisation of work performed by individuals, irrespective of whether that work is performed online or in a certain location.

Article 22 of the General Data Protection Regulation (GDPR),[4] referring to decisions based solely on automated processing, including profiling – the centrepiece of the EU's legal approach to automated decision-making (ADM) – may certainly apply in employment contexts, although without any specificity and provided that they fall under the GDPR's scope and to the extent of its main policy goals: that is, compliance with data protection and not social security protection or protection against unfair dismissal, overwork or unfair wages.

Even the platform-to-business regulation (P2B Regulation)[5] might become relevant in the provision of ranking services if they are used in employment agreements or in the workplace to determine working conditions in some way. Yet, the recently adopted Digital Services Act[6] and the Digital Markets Act,[7] as well as the European Commission proposals on liability rules – the AI Liability Directive[8] and the revised directive on product liability (revPLD)[9] – do not contain employment-specific rules but an array of rules of a potential general character that may be suited to employment relations or be properly adapted.

Against such a backdrop, this chapter explores the main scenarios where automation is used in the workplace and for employment, devises a taxonomy to identify key legal problems and provides guidance on the construction of a consistent body of rules governing the automation of employment relationships and the workplace by assembling, combining and contextualising existing rules and principles, and proposing gap-filling solutions.

Automation includes both purely algorithmic systems ('deterministic' models or 'symbolic' AI) and learning systems driven by AI techniques and approaches ('sub-symbolic', 'stochastic' or 'machine-learning based' AI). In both cases, the terminology used to describe any such system is ADM – automated decision-making – that is, it is defined as a (computational) process and includes AI techniques and approaches that, fed by inputs and the data received or collected from the environment, can generate, given a set of pre-defined objectives, outputs in a wide variety of forms (content, ratings, recommendations, decisions, predictions, etc.) (Rodríguez de las Heras Ballell

---

4. Regulation (EU) 2016/679 of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) [2016] OJ L119/1.

5. Regulation (EU) 2019/1150 of 20 June 2019 on promoting fairness and transparency for business users of online intermediation services [2019] OJ L186/57.

6. Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a single market for digital services and amending Directive 2000/31/EC (Digital Services Act) (text with EEA relevance). OJ L 277, 27 October 2022, pp. 1-102.

7. Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector and amending directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act) (text with EEA relevance). OJ L 265, 12 October 2022, pp. 1-66.

8. Proposal for a directive of the European Parliament and of the Council on adapting non-contractual civil liability rules to artificial intelligence (AI Liability Directive), COM/2022/496 final.

9. Proposal for a directive of the European Parliament and of the Council on liability for defective products, COM/2022/495 final.

2022). This explanation is largely based on the (ongoing) definition of AI systems,[10] for the purposes of the future AI Act, that identifies the key elements which enable the formulation of a working definition of ADM itself: inputs (these can be human-based inputs, machine-generated data or interactions with the environment); pre-defined objectives; techniques and approaches to achieve those objectives; and outputs.

1.2 Devising a taxonomy for classifying the possible uses of automation in employment

In the process of mapping the risk scenarios and identifying the most relevant legal problems, a two-layer taxonomy is proposed.

1.2.1 First layer: from algorithmic management to smart workplaces

The first layer classifies the possible uses of automation in employment-related contexts into two main categories.

First, the automation of any decision-making process that is likely to affect workers' rights and working conditions to any extent. E-recruiting programmes and all algorithmic management systems belong to this category under which decision-making is fully or partially automated in the context of employment.

The common denominator is that the 'affected person' (someone affected by a decision taken or supported by ADM)[11] is the worker while the 'user' or deployer (who uses or relies on ADM outputs) is the employer or its agents, collaborators or contractors. The user is the person who is in control of the ADM system and benefits from its operation in the context of carrying out an economic activity. Hence, the employer (and collaborators) deploying ADM for algorithmic management purposes is the user. The proposed AI Act uses a broader definition of user including provider, deployer, authorised representative, importer and distributor of an AI system. The term 'deployer' describes any natural or legal person, public authority, agency or other body using an AI system under authority except where the AI system is used in the course of a personal non-professional activity. Accordingly, in line with the terminology of the proposed AI

---

10. Article 3(1) of the AI Act reads: 'Artificial intelligence system (AI system) means software that is developed with one or more of the techniques and approaches listed in Annex I and can, for a given set of human-defined objectives, generate outputs such as content, predictions, recommendations, or decisions influencing the environments they interact with'. The 'joint compromise' text unveiled at the end of November 2021, 2021/0106(COD), proposed some changes to this definition. In the preamble, the joint compromise clarifies that the proposed amendments are intended to make explicit that an AI system, unlike traditional software, should be capable of determining how to achieve a given set of human defined objectives by learning, reasoning or modelling. The revised definition is the following: 'artificial intelligence system (AI system) means a system that: (i) receives machine and/or human-based data and inputs; (ii) infers how to achieve a given set of human-defined objectives using learning, reasoning or modelling implemented with the techniques and approaches listed in Annex I; and (iii) generates outputs in the form of content (generative AI systems), predictions, recommendations or decisions which influence the environments it interacts with.' Pursuant to the latest version of the AI Act of 14 June 2023, 'AI system' means a machine-based system that is designed to operate with varying levels of autonomy and that can, for explicit or implicit objectives, generate outputs such as predictions, recommendations or decisions that influence physical or virtual environments.

11. As per the drafting of the text of 14 June 2023, Article 3 (8a) defines 'affected person' as any natural person or group of persons who are subject to or otherwise affected by an AI system.

Act, an employer implementing algorithmic management solutions is the deployer while the worker affected by the decisions adopted by such AI systems used by the employer is the affected person.

Second, the automation of tasks, activities and mechanical procedures in the workplace to assist workers in the performance of their jobs or as a means of fully or partially replacing workers at any stage of the working process (industrial robots, automated quality controls, autonomous vehicles, smart warehouses, predictive maintenance). This second category mostly, but not exclusively, covers purely algorithmic processes driving the performance of repetitive and mechanical tasks. Nonetheless, learning systems providing predictions, recommendations or calculations to assist or replace workers in their work are also, and increasingly, included in this category. So under these second category deterministic and non-deterministic (learning) systems are included.

The distinctive feature of this second category is that the worker is frequently the operator of ADM in a specific situation – using ADM calculations to perform a task, relying on ADM predictions in doing so or planning work on the basis of ADM recommendations. Certainly, both the employer and the worker may benefit, with different intensity, from the efficiencies of automation. However, in the case of malfunctions, the worker as well as the employer can be negatively affected with a range of potential damage. While the employer may suffer loss of profits, reputational harm and economic losses arising from a breach of contracts with clients, or late delivery, the worker may be affected by poor performance due to the errors of the system but also by physical harm or bodily injury caused by the operation of a machine or use of a device driven by the system.

1.2.2 Second layer: from ADM systems supporting decisions to ADM systems taking final decisions

The second layer distinguishes from the categories described above two further sub-categories.

ADM can produce or deliver a myriad of outputs from a rating to a bonus award decision, from a promotion recommendation to the allocation of work assignments and from a recruitment decision to the flagging of a worker as 'unreliable' leading to dismissal, the application of sanctions or a reduction in salary.

Against such a backdrop, and despite the ample variety of outputs, a distinction can be made between two situations: ADM systems that generate outputs that will be used as inputs into subsequent decision-making (feeding another ADM or supporting human decisions); or which produce a final decision that has a direct effect on the legal or contractual status of the affected person. In the former case, the classification of a worker as unreliable by a reputational system might support a subsequent (automated or human) decision to dismiss him or her; in the latter, a reputational system may demote a courier in a platform hierarchy or classify a job promotion applicant as ineligible, consequently having a direct impact on the working conditions of that courier or the labour status of that applicant.

This proposed two-layer taxonomy provides an analytical framework to discuss, explore and address the key legal issues arising from the use of ADM in employment-related contexts.

Thus, as further expounded below, ADM employed for purposes included in the first category may lead to discrimination, the violation of labour rights, data protection infringements or to unfair, unlawful or wrongful dismissal. In situations covered by the second category, a defective robot installed in the workplace may cause physical harm or bodily injury to the operating worker, material damage to inventory or other equipment or economic losses to the company. Hence, the taxonomy helps to group and classify use cases and traces an exploratory path towards potential legal problems and possible solutions.

2.   Key legal issues: attribution of legal effects and the allocation of liability

The analysis of the main legal issues in this section spotlights solely private law-related matters – essentially, contractual aspects and liability – and is elaborated through the formulation of four questions:

1. Is automation permitted in employment contexts?
2. To whom can the legal effects of such permission be attributed?
3. Who is liable for the use of automation and on which grounds?
4. Are there already, or do we need, AI-specific principles and rules? Or, on the contrary existing liability-related rules suffice?

2.1   The principle of technology neutrality and non-discrimination against ADM

The most basic, but fundamental, question is whether automation (the use of ADM) is permitted in general terms in employment-related contexts either to adopt or support decisions such as recruitment, worker promotions, bonus programmes, task allocation or even dismissals; or to perform certain work activities or replace, totally or partially, workers in certain jobs. To provide an answer in the affirmative, two principles are instrumental: technology neutrality; and non-discrimination.

The principle of non-discrimination is widely recognised in international instruments on the use of electronic communications in international contracts. The United Nations Commission on International Trade Law (UNCITRAL) model laws on electronic commerce (1996), on electronic signatures (2001) and on electronic transferable records (2017) are all based on the principles of non-discrimination, technological neutrality[12]

---

12. The principle of technology neutrality is not usually defined in international texts in an affirmative manner but it may be inferred from acknowledgement of the non-discrimination principle ('legal effects shall not be denied solely on the grounds that certain technology is used') and it underlies the provisions recognising functional equivalence. For instance, Article 6 of the UNCITRAL Model Law on Electronic Commerce states: 'Where the law requires information to be in writing, that requirement is met by a data message (…)'. This statement entails a technology-neutral approach.

and functional equivalence. More precisely, the United Nations Convention on the Use of Electronic Communications in International Contracts (2005)[13] extends the principle of non-discrimination to the use of automated systems whose actions are not reviewed or triggered by natural persons.[14] Thus, in the absence of human intervention, the action performed by an automated system shall not be denied legal effect, validity or enforceability solely on the grounds that it is performed by automated means.

These international principles endorse the use of law-compliant ADM, unleashing the full potential of automation but without compromising the protection of rights and liberties.

A non-discrimination rule neither necessarily means that ADM-specific rules cannot be adopted nor implies that their use cannot be limited, exempted or subject to conditions, as discussed below. Indeed, the future AI Act classifies as high-risk systems those used for certain purposes in the area of employment, worker management and access to self-employment,[15] but it does not forbid their use in employment entirely. Accordingly, specific requirements and limitations will apply in high-risk cases, but only the general rules applicable to the 'equivalent non-automated situation' will govern other uses.

However, the key finding is that the use of ADM in employment should be evaluated with consideration to the specificity of the use case, including the data collection and processing upon which ADM relies. Regardless, the certification of the AI system should strive to be as comprehensive as possible, encompassing the sectoral law requirements and fully complying with all the relevant principles and legislation.

2.2   The allocation of legal effects

If automated decisions or ADM-supported decisions related to employment can be valid and enforceable, the next question is to whom to allocate the legal effects of such actions or decisions. Whether the decision is to hire a candidate, promote an employee, refuse the promotion request of a worker, grant a bonus, apply a disciplinary action or dismiss a worker, a decision-making process may be either fully or partially automated. When the decision is fully automated, to whom such a decision of the ADM system and its legal effects should be attributed is a legitimate, and critical, question. Should it be deemed a decision of the employer? The ADM system operates with a substantial level

---

13. United Nations Convention on the Use of Electronic Communications in International Contracts (New York, 2005) (adopted 23 November 2005, entered into force 1 March 2013).

14. Art. 12 of the UN Convention defines the use of automated message systems for contract formation thus: 'A contract formed by the interaction of an automated message system and a natural person, or by the interaction of automated message systems, shall not be denied validity or enforceability on the sole ground that no natural person reviewed or intervened in each of the individual actions carried out by the automated message systems or the resulting contract.'

15. Annex III, AI Act, as amended by Parliament: '(a) AI systems intended to be used for recruitment or selection of natural persons, notably for placing targeted job advertisements screening or filtering applications, evaluating candidates in the course of interviews or tests; (b) AI systems intended to be used to make or materially influence decisions affecting the initiation, promotion and termination of work-related contractual relationships, task allocation based on individual behaviour or personal traits or characteristics, or for monitoring and evaluating performance and behavior of persons in such relationships.'

of autonomy, without human intervention in each decision, and collects and processes data from several sources, driven by learning techniques and even, on a few occasions, as a result of flaws, errors or malfunctions. Is a decision then to be attributed to the system developer, the data providers, the software update provider, the users or the distributors?

A decision taken by an ADM system is deemed to be the decision of the user implementing, employing or applying that ADM in making or supporting decisions for the purposes and within the scope of its activity. Accordingly, the legal consequences of such a decision are to be attributed to the user, regardless of the decision being arrived at by automated means. For such purposes, the employer is the user.

Hence, the employer has to assume the legal effects and bear the consequences of an ADM decision; the employer cannot excuse itself from complying with an ADM decision or bearing its legal consequences solely on the grounds that the decision was made by automated means. The user also cannot deny that the decision may be attributed to it on the grounds that the ADM was developed by a third-party provider or that data was collected from third-party data providers. The decision is not attributed to the programmer, the system provider, the distributor or the data providers; it is the user that is responsible for ensuring that the ADM system is fit for its intended purpose and operates as it should.

2.3 Risk scenarios and liability rules

The use of ADM can provoke, trigger, aggravate or intensify risks but, either way, the question is one of to whom to allocate the legal consequences. Three liability scenarios can be explored.

2.3.1 Noncompliance with legal, collective and contractual terms

An employer who decides to use an ADM system for employment-related purposes or in the workplace must ensure that it operates in compliance with the law, the applicable collective labour agreement and the contractual terms of employment. Should the system deviate from either of these, there will be an infringement attributable to the employer leading to liability (legal remedies, administrative sanctions, compensation for damages or other contractual actions).

The following examples provide a few illustrations:

> If a bonus programme, as agreed in the employment contract, is based on five objective/quantitative performance criteria, the ADM cannot be programmed to use other factors, such as a reputational system departing from the agreed one.

> Should race become a relevant criterion (either intended and programmed, or subsequently learned by the ADM but which has passed unnoticed) for an

automated recruitment programme, an employee promotion campaign or a bonus calculation mechanism, the user may be committing racial discrimination.

If, pursuant to a collective bargaining agreement, employees are free to opt for full-time work or a part-time alternative with no differential treatment, an ADM system that allocates tasks (deliveries) preferentially to full-time workers over part-time ones and consequently penalises part-time workers for not reaching the minimum number of deliveries per week is, at the very least, violating the collective agreement.

Should robots installed in the workplace be improperly and non-regularly monitored and maintained, and cause personal injury to workers, the employer may be infringing rules on the prevention of labour risks.

2.3.2   Liability for damage for defective AI systems and AI-enabled products

Should a defective ADM system be employed in the workplace (industrial robots, smart warehouse, quality controls) or in the context of employment (task allocation, reputational systems, employee promotion programmes), damage can be caused to a company's property, while workers may be injured, data lost or corrupted and the manufacturing chain interrupted.

One of the challenging questions is whether and, if so, to which extent the classical product liability regime (PLD)[16] is applicable to ADM. The product liability rules do not easily accommodate ADM and there are several hurdles to go over: the concept of product; the meaning of defect; the rationale of some defences; and the liability of the economic user (as producer, importer, distributor or provider). That is precisely the aim of the proposal for a revised PLD published in September 2022.

Under the proposal's revised approach, AI systems and AI-enabled goods are 'products' for the purposes of the scope of the revPLD. That means, without the need to prove the manufacturer's fault, where an injured party manages to establish the defectiveness of a product, the existence of a causal link between that defectiveness and damage, and the level of damage itself (even if the burden of proof is alleviated by certain presumptions as per the revised Article 9), he or she can be compensated for the damage – that is, the material losses resulting from death or personal injury, or harm to property, to the extent provided for the proposed directive – which has been caused by the defective ADM system.

However, who is the injured person entitled to claim and which damages can be compensated? The proposal is not particularly clear in determining who can be an injured person entitled to claim compensation but combining the reference to 'natural persons' in Article 1 and the extent of compensable 'damages' in Article 4(6), workers are amply within the coverage of the product liability regime. However, it is very unlikely

---

16. Council Directive 85/374/EEC of 25 July 1985 on the approximation of the laws, regulations and administrative provisions of the Member States concerning liability for defective products. OJ L 210, 7 August 1985, pp. 29-33.

that employers can be compensated for the damage resulting from a defective ADM system that they have employed (i.e. for property harmed by a defective robot) insofar as Article 1 limits compensation to natural persons while Article 4 excludes harm to, or the destruction of, property used exclusively for professional purposes.

In terms of liability, in cases other than those where the damage entails a violation of labour safety prevention policies or there are other causes attributable to the employer,[17] the primary liable economic operator is the manufacturer. From there, a cascade of liable economic operators descends (importers, distributors, refurbishers, online platforms). The employer as a mere user is not in the cascade of liable economic operators on the grounds of product defectiveness. Even so, does the employer become a potentially liable economic operator when it is not simply a passive user? Interestingly, the proposal is not clear (in Art. 7(4)) in its definition of when a person who substantially modifies a product already placed on the market becomes liable. That assessment is critical to an understanding of whether an employer who customises, personalises, adapts or modifies an ADM system to make it fit for a specific purpose, after acquiring it from its manufacturer, might be liable.

Workers, as victims of the damage caused by a defective product, and protected by the product liability rules, might, however, be in practice rather defenceless if they have to raise a claim against the manufacturer, the importer or even the platform where the employer is not a liable person under the product liability regime (even if the employer may be liable on other liability grounds). Cost, procedural complexities, burden of proof, parties' locations or conflict-of-law aspects may provide a drastic deterrence to a claim. Therefore, the proposal adds some innovations to the PLD aimed at enhancing the protection of injured persons by alleviating the burden of proof and by enlarging the liability scope of the manufacturer when AI is used.

As far as the burden of proof is concerned, the traditional rule that the injured person has to prove the defectiveness of the product, the causal link between defectiveness and damage, and the damage itself is preserved. However, some presumptions have been provided to alleviate the burden, especially in cases of technical or scientific complexity. This may apply to ADM due to complexity, opacity and a certain level of unpredictability in the operation of learning systems. Thus, defectiveness would be presumed when the claimant establishes that the product does not comply with mandatory safety requirements or that the damage was caused by 'an obvious malfunction of the product during normal use or under ordinary circumstances'.

In relation to the scope of liability, a manufacturer shall not be exempted provided that the defectiveness is within its control or is due to a related service, a software problem, including software updates or upgrades, or reflecting a lack of software updates or upgrades necessary to maintain safety. Consequently, the manufacturer can be held liable if, upon placing the product on the market, it then becomes defective, as long as the defect is triggered by a subsequent update or upgrade, or lack of an update or

---

17. Council Directive of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work (89/391/EEC) – 'the Framework Directive'.

upgrade, within the control of the manufacturer. For instance, if the manufacturer fails to provide an update to prevent cybersecurity breaches or the compatibility of the software embedded in the product with a common operating system and, as a result, the product causes damage, the manufacturer may be liable.

It must be noted that the product liability rules do not cover all liability scenarios and types of losses, only those triggered by the defectiveness of a product in relation to damage compensable under the PLD and within the scope of the rules. Indeed, Article 2 explicitly acknowledges that the revPLD does not affect, in particular, any rights which an injured person may have under national rules concerning contractual liability or concerning non-contractual liability on grounds other than the defectiveness of a product. That leads to a third liability scenario to which the other recently published proposal – the AI Liability Directive – to be adopted as a package alongside the revPLD proposal, is related. The claims do not overlap as the grounds for liability as well as the potential liable economic operators and types of damage for which compensation can be claimed are different.

2.3.3 Fault-based liability as a general default liability system

An employer using ADM in the workplace and for employment purposes can be at fault for injuries caused to workers (in addition to, or alternatively to, contractual liability) or even to third parties. As far as workers are concerned, regarding non-contractual liability arising from accidents at work, in most cases there is strict liability at national level.

The rules on fault-based liability are largely non-harmonised and depend upon the national laws of Member States. The aim of the draft AI Liability Directive, which is much less ambitious than the preceding European Parliament Resolution of 2020 that provided for strict liability for listed high-risk AI systems,[18] is to provide common rules on the disclosure of evidence on high-risk AI systems and to establish the burden of proof in the case of non-contractual fault-based civil law claims brought before national courts for the damage caused by an AI system. A set of rebuttable presumptions is laid down to alleviate the perceived complexities surrounding claims for damages caused for AI systems due to their distinctive features (opacity, data dependence, vulnerability, learning capabilities, openness).

In practice, the injured person, either the worker or a third party, would claim compensation from the employer pursuant to the applicable national laws on (fault-based) civil liability, but they would benefit from the alleviation of the burden of proof provided by the common presumptions laid down in the directive. Whether the resulting burden of proof allows the person affected by the use of the high-risk AI system to overcome opacity or whether this is still an 'impossible burden' is an open question. In particular, once the provider has proven compliance with the requirements

---

18. European Parliament resolution with recommendations to the Commission on a civil liability regime for artificial intelligence (2020/2014(INL)) [2020] OJ C404/107, that includes a proposal for a regulation of the European Parliament and the Council on liability for the operation of artificial intelligence systems.

of Chapter II of the AI Act, the worker must prove all four elements listed in the AI Liability Directive: namely, the fault of the provider; the causal link between the fault and the output of the AI system; the causal link between the output of the AI system and the damage; and the damage itself.

It is relevant to note how the draft AI Liability Directive builds a bridge with the future AI Act by connecting the non-compliance of harmful AI systems, having certain requirements for high-risk AI systems as laid down in the AI Act, with the rebuttable presumptions provided for in the AI Liability Directive. Thus, it meets head-on one of the criticisms of the AI Act; that it does not provide for individual rules of redress. The AI Act indeed makes no provisions in this area but the AI Liability Directive aims to facilitate compensation for damage according to non-contractual fault-based liability rules at national level by setting presumptions triggered by non-compliance with the requirements of the AI Act. The consequence is that the two future pieces of legislation will interplay as follows: non-compliance with some of the requirements of Chapter II of the AI Act may trigger the rebuttable presumptions of the AI Liability Directive; and, therefore, the burden of proof on the victim will be eased in a claim of fault-based liability against the user (the employer) for the damage caused by a non-compliant AI system pursuant to fault liability under national laws.

In order to ensure legal certainty and prevent a substantial reduction in the level of non-contractual protection for workers, the proposed AI Liability Directive should clearly stipulate that, where the business activity to which the high-risk AI is applied is subject to strict liability or another sectoral or specific non fault-based regime, the proposal does not affect this liability framework.

To conclude, the previously-analysed scenario can be put in practice in the following hypothetical situation:

> A smart warehouse is equipped by interconnected AI-enabled devices and smart equipment that, based on dynamic data and activity predictions, automatically handles inventory, packs deliveries, unloads an incoming vehicle and sends instructions to the personnel allocating tasks and requiring the confirmation of orders. Unexpectedly, one of the pieces of industrial equipment starts performing random movements, causing damage to stored goods, damaging other equipment and injuring two workers.

> It was proved that the equipment was defective, but it had not been maintained on a regular basis by the company due to the high cost. Additionally, it was proved that the damage was aggravated because the equipment was not fit for the assigned purpose and, therefore, there were interoperability issues.

> The manufacturer (unless located outside the EU, when the liability passes to importers or other users along the liability cascade) would be liable for the injuries caused by the AI-enabled device and smart equipment to the individual workers, to the extent covered by the revPLD. The burden of proof on the workers would be alleviated by the measures discussed above laid down in the revPLD. In parallel,

workers might be entitled to raise a claim on strict liability grounds against the employer (lack of monitoring, maintenance and unsuitable selection), in addition to any extra-contractual fault-based liability, where national laws provide for this in cases beyond the sphere of the employer's strict liability. Besides, the damage caused might be deemed to arise from non-compliance with labour risk prevention duties that would also form the object of contractual obligations for the employer, in which case the employer would be additionally liable on such grounds (contractual liability). The worker, in most cases, can invoke both the contractual and the extra-contractual liability to the extent allowed under Member State law.

3.   Conclusion

This chapter explores the main scenarios where automation is used in the workplace and for employment, devises a taxonomy of automation situations to identify key legal problems, and provides guidance to build a consistent body of rules governing the automation of employment relationships and the workplace by assembling, combining and contextualising existing rules and principles, and proposing gap-filling solutions.

The possible uses of automation in employment-related contexts are classified into two main categories: the automation of any decision-making (algorithmic management); and the automation of tasks, activities and procedures in the workplace (smart workplace).

The main legal issues have been identified as centring on four questions: legality (is the use of AI permitted by the law?), validity (are decisions adopted by AI valid?), enforceability (can decisions and actions performed by AI enforceable?) and liability (who is liable?).

The primary finding is that a consistent and combined application of the rules provided for by the various texts related to AI in the EU is necessary to tackle in full the legal issues which arise from automation in employment. Thus, the future AI Act should be applied in combination with a number of other provisions established either by EU instruments or by national rules. In particular, the proposals of the directive related to liability issues are of special relevance insofar as they are aimed at addressing the specificities of the damage caused by AI systems. These rules are applicable to the extent that AI systems are used, but they should be aligned with the relevant sectoral legal framework. Furthermore, none of these AI-specific regimes are intended to repeal labour laws which will continue to be applied and which should not entail a diminishing of workers' protection solely on the grounds that automation is used in an employment-related context. On the contrary, it has been advocated that full and effective protection needs to be ensured for workers where AI is used in employment contexts from algorithmic management to smart workplaces.

References

Council of the European Union (1985) Council Directive 85/374/EEC of 25 July 1985 on the approximation of the laws, regulations and administrative provisions of the Member States concerning liability for defective products, Official Journal of the European Union, L 210, 7.8.1985. https://www.eumonitor.eu/9353000/1/j9vvik7m1c3gyxp/vitgbgh2ouzc

Council of the European Union (1989) Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work, Official Journal of the European Union, L 183, 29.6.1989. https://www.eumonitor.eu/9353000/1/j9vvik7m1c3gyxp/vhckkmbs3qy5

European Commission (2021a) Proposal for a Directive of the European Parliament and of the Council on improving working conditions in platform work, COM(2021) 762 final 9.12.2021. https://www.eumonitor.eu/9353000/1/j9vvik7m1c3gyxp/vlolewihtkxw

European Commission (2021b) Proposal for a Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) and amending certain Union legislative acts, COM(2021) 206 final, 21.4.2021. https://www.eumonitor.eu/9353000/1/j4nvhdfdk3hydzq_j9vvik7m1c3gyxp/vli6mrzmjby8

European Commission (2022a) Proposal for a Directive of the European Parliament and of the Council on liability for defective products, COM(2022) 495 final, 29.9.2022. https://www.eumonitor.eu/9353000/1/j9vvik7m1c3gyxp/vlwrmdrl2dxc

European Commission (2022b) Proposal for a Directive of the European Parliament and of the Council on adapting non-contractual civil liability rules to artificial intelligence (AI Liability Directive), COM(2022) 496 final, 28.9.2022. https://www.eumonitor.eu/9353000/1/j9vvik7m1c3gyxp/vlwrmdrw4nxd

European Parliament (2020) European Parliament resolution with recommendations to the Commission on a civil liability regime for artificial intelligence (2020/2014(INL)), 20.10.2020. https://www.europarl.europa.eu/doceo/document/TA-9-2020-0276_EN.html

European Parliament (2023) Artificial intelligence act. Amendments adopted by the European Parliament on 14 June 2023 on the proposal for a regulation of the European Parliament and of the Council on laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) and amending certain Union legislative acts (COM(2021)0206 – C9-0146/2021 – 2021/0106(COD))1, 14.6.2023. https://www.europarl.europa.eu/doceo/document/TA-9-2023-0236_EN.html

European Parliament and Council of the European Union (2016) Regulation (EU) 2016/679 of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), Official Journal of the European Union, L119/1, 4.5.2016. https://eur-lex.europa.eu/eli/reg/2016/679/oj

European Parliament and Council of the European Union (2019) Regulation (EU) 2019/1150 of 20 June 2019 on promoting fairness and transparency for business users of online intermediation services, Official Journal of the European Union, L186/57, 11.7.2019. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019R1150

European Parliament and Council of the European Union (2022a) Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a single market for digital services and amending Directive 2000/31/EC (Digital Services Act) (text with EEA relevance), Official Journal of the European Union, L 277, 27.10.2022. https://eur-lex.europa.eu/eli/reg/2022/2065/oj

European Parliament and Council of the European Union (2022b) Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector and amending directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act) (text with EEA relevance), Official Journal of the European Union, L 265, 12.10.2022. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32022R1925

Rodríguez de las Heras Ballell T. (2022) Guiding principles for automated decision-making in the EU, ELI Innovation Paper, European Law Institute. https://europeanlawinstitute. eu/news-events/news-contd/news/eli-innovation-paper-on-guiding-principles-for-automated-decision-making-in-the-eu-now-available-f/

UN (2005) United Nations convention on the use of electronic communications in international contracts. https://uncitral.un.org/en/texts/ecommerce/conventions/electronic_communications#:~:text=Purpose,their%20traditional%20paper%2Dbased%20equivalents

All links were checked on 16.02.2024.

Cite this chapter: Rodríguez de las Heras Ballell T. (2024) Automating employment: a taxonomy of the key legal issues and the question of liability, in Ponce del Castillo (ed.) Artificial intelligence, labour and society, ETUI.