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Fragility of pre-contractual labour relations in the light of algorithmic recruitment

Summary: **1.** In defence of pre-contractual employment relationship and its relevance for labour law. **2.** Profiling through data and information dyad. **3.** Recruitment practices involving automated profiling of the candidates in the light of right not to be subject to a decision based merely on automated processing ex Article 22 GDPR. Cleaving power of the algorithm-driven hiring tools. **4.** Algorithm cannot be lied to. Right to lie as a defence mechanism. Exception from *culpa in contrahendo* and its problematic application in automated profiling. **5.** Final remarks.

1. *In defence of pre-contractual employment relationship and its relevance for labour law*

Effects of digital revolution stretch over all types of work-related contractual relationships and penetrate all the phases of their existence, preparatory stage being no exception.

The actual signing of an employment contract is preceded by relatively complex social and legal relations between the potential contracting parties. The totality of rights and obligations that arise between parties in the process of negotiating of an employment contract will be further referred to as pre-contractual relationship[1]. This phase is characterised by rather concise legal regulation that oversees the realization of one of the fundamental human

[1] Concept borrowed from terminology of Article 41 of the Slovak Labour Code Law No. 311/2001. The term is consistently used also among Czech and Slovak legal scholarship. For the Czech part see classical textbook GREGOROVÁ, *Pracovneprávní vztahy*, in GALVAS *ET AL.*, *Pracovní právo 2., dopl. a p eprac. vydání*, Masarykova univerzita, 2015, pp. 107-109. As for the Slovak doctrine see BARANCOVÁ, SCHRONK, *Pracovné právo*, Sprint dva, 2018, pp. 210-211.

rights – right to work[2]. It begins with announcement of the selection procedure and lasts until the employer selects a particular candidate and provides to inform the others who failed, *ipso facto* closing the selection procedure.

Nowadays recruitment processes are increasingly oriented towards abandoning traditional evaluation methods based on subjective judgments, to be based instead on the automated and robotic analysis of data[3]. Generally, when employers use algorithms, the goal is to gather and apply data to make decisions in a faster, more efficient, and more objective manner. Their use is, paradoxically, directly linked to increase in volume of job applications thanks to technological tools involved in the recruitment. The more the algorithms are deployed in the recruitment, the faster and more effective the selection process can get in elaborating the applications, thus resulting in the vicious circle of ever increasing demand for better technology capable of elaborating growing number of job applications.

Present analysis will concern precisely the deepening of factual asymmetry between the parties of pre-contractual employment relationship, with regards to increased automation of decision-making processes. Firstly, in order to provide some solid basis to the argument the article illustrates the conceptual differences between the notions "data" and "information" depending on whether they are used in automated profiling or not, as well as their improper use by the European legislator. Subsequent paragraphs further develop the thesis of technological influence in the recruitment: automatic profiling takes form through the critical scrutiny of Article 22 GDPR, followed by the hypothesis of the right to lie as a lawful tool if used as a legitimate defence against banned investigations by the potential employer – here the paper will try to demonstrate how this right fails when algorithms take over.

However, one question must be preliminary answered before focusing on the digitalisation of pre-contractual relationships in labour law: one shall ask as to why so little interest is shown from the (Italian) legal scholarship

[2] Article 23 of Universal declaration of human rights states that everyone has the right to work and to free choice of employment, and Article 4 of Italian Constitution recognizes the right of all citizens to work. For representative Italian scholarly literature see D'Antona, *Il diritto al lavoro nella Costituzione e nell'ordinamento comunitario*, in *RGL*, 1999, No. 3, p. 15 ff.

[3] Ficarella, *La tutela della privacy del lavoratore nell'era dei big data*, in Cucciovino *et al.* (eds.), *Flexicurity e mercati transizionali del lavoro. Una nuova stagione per il diritto del mercato del lavoro?*, ADAPT University Press, 2021, p. 123 ff.

(and case-law) on the issue of relevance of pre-contractual employment relationship.

The issue of indifference of labour law doctrine towards the pre-contractual labour relations stems from some of the fundamental legal questions the branch is trying to answer for some time. The power asymmetry between jobseeker and potential employer is lacking the stamp of subordination *ex* Article 2094 Civil Code which still seems to be the preferential gateway to the single and inseparable block of labour protections[4]. However, while subordination offers a fertile ground for allocating the protection to the weaker party, it certainly does not have monopoly on it, considering antidiscrimination provisions' coverage of pre-contractual relations contained in articles 8 and 15 of Workers' Statute, let alone the private law sphere[5]. Therefore it seems rather wise to turn to enlightened work of Italian scholar Gaetano Vardaro (in classical essay from 1986 called *Tecnica, tecnologia e ideologia della tecnica nel diritto del lavoro)* in order to grasp a concept of subordination he envisioned for the labour law of the twenty-first century – the labour law bold enough to venture beyond the limits of the known world, making use of the subordination to distribute protection to the weaker party and at the same time free of rigid dogmatism that prevents from expanding the protection where it is needed[6]. For the pre-contractual relations preceding the employment relationship it could mean their assimilation to the employment

[4] The inseparability of the labour protections has been criticized by legal scholarship in Caruso, Del Punta, Treu, *Manifesto. Per un diritto del lavoro sostenibile*, in *WP C.S.D.L.E. "Massimo D'Antona".IT*, No. 21/2020; with regards to welfare coverage see also Razzolini, *La subordinazione ritrovata e la lunga marcia del lavoro autonomo*, in *LLI*, 2020, Vol. 6, No. 2, pp. 141–144.

[5] Private law has lost its domain of will and pure individualism and it is no longer indifferent to the problems of social justice and the distributive effects of wealth. Nowadays civil law scholarship legitimises the intervention of public authority in order to create rules governing a private contract when – such as in case of tenants, consumers or users of essential services – the need to take into account the conditions of social or economic weakness is pungent. As a consequence of legislator's intervention the regulation does not cease to be contractual, neither it affects the relevance of the decisions of the private contracting parties in defining the contractual program, and only entails a "functionalization" of the latter for the simultaneous realization of interests of a social nature. See Perulli, *Droit des contracts et droit du travail*, in *RDT*, 2007, No. 4, Vol. I, p. 438 ff.; Trib. di Lucca 29 April 1991, note of Di Mauro, *In tema di integrazione legale del contratto ex art. 1339 c.c.*, in *GC*, 1992, Vol. I, p. 246.

[6] By "throwing the ladder after one has climbed it". Vardaro, *Tecnica, tecnologia e ideologia della tecnica nel diritto del lavoro*, in *Politica del Diritto*, 1986, No. 1, p. 128.

relationship with the purposive approach technique[7], i.e. identifying the goals behind the law and making sure that chosen legal instruments are suitable to achieve these goals, especially focusing on the vulnerabilities that require response; all this by contextual analysis that in case of pre-contractual relations would take into account elements of democratic deficit rather than of subordination. Democratic deficit refers to a party being governed by someone whilst unable to participate in this government[8], which easily applies in most employment relation dynamics between employees and employers. But in some cases the job seekers in the recruitment process suffer the democratic deficits as well – namely when employer's decision-making process that affects the other partecipant is flawed and the party is unable to contest the decision and force an amendment[9].

Closer inspection of the theory of democratic deficits reveals that it simultaneously does not preclude the traditional binary division between subordination and employement, but rather it modifies their separation criterion. Similarly as in, for instance, consumer protection relations, it allows for capturing the vulnerability that justifies legal protection. Indeed, the foregoing does not want to suggest to extend the notion of tecnological subordination *in toto* where it does not belong – in the pre-contractual employement relationships – but rather it tries to challenge the labour law viewpoint on subordination conditioning all the protection allocation.

Then again, undeniable ongoing changes (both social and technological) seem to have an emptying effect on the traditional concepts of worker/employee. Some comentators see the reasons in vanishing perception of the labour as a collective movement or a class; the labels that seem to suit better to contemporary workers are the identities such as consumer or investor[10]. Less and less rare are becoming suggestions about including labour protection to these new worker types, irrespectively of legal transaction on which are founded[11].

Vardaro's reasoning in this regard offers a deeper perspective; according

[7] Davidov, *A purposive approach to labour law*, OUP Oxford, 2016.

[8] Davidov, *Subordination vs domination: exploring the differences*, in *IJCL*, 2017, Vol. 3, Iss. 3, p. 8.

[9] Davidov, *Subordination vs domination*, cit., p. 13.

[10] Arthurs, *Labor Law as the law of economic subordination and resistance: a thought experiment*, in *CLLPJ*, 2013, Vol. 34, No. 3, pp. 589-590.

[11] Arthurs, *op. cit.*, also, as one of the first among Italian scholars Vardaro, *cit.*, p. 75.

to the scholar "the study of the relationship between man, work and technology cannot be exhausted within the spatial or even temporal borders of the working performance: the estrangement (*rectius*: alienation) of the worker refers to that of the consumer and this and that of the tenant, in a circle of alienations and subordinations of modern man"[12]. Indeed, the relationship between man, work and technology is crucial to Vardaro – the inside power struggle between those elements depends on how the technology can be employed within the production process dominated by others[13]. However, while he does not deny the transversal effect of technological innovation in both subordinated and self-employed working relations[14], he makes no mention of such effects on the negotiation phase preceding any working relationship. After all, the paper written more than thirty years ago could not have grasp "every" future development of labour – and technology invading the recruitment phase has had quite overwhelming effects on power imbalance between the job seekers and employers.

2. *Profiling through data and information dyad*

Modern hiring practices make diverse use of internet and technologies in order to understand the suitability of individual candidates for the job positions. Ranging from the analysis of social media accounts to the use of machine-learning algorithms, new technologies enable extensive profiling of future employees.

When seeking appropriate regulatory mechanisms to tackle technological challenges in pre-contractual relationship, data protection regulation has been generally considered to be a key regulatory response to a problem[15] (at

[12] Vardaro, *cit.*, p. 126.

[13] Bavaro, *Questioni in diritto su lavoro digitale, tempo e libertà*, in *RGL*, 2018, No. 1, p. 13.

[14] Bavaro, *cit.*

[15] European Commission, *White paper on artificial intelligence – a European approach to excellence and trust*, Brussels, 2020, claims that GDPR addresses the risks of discrimination and violation of fundamental rights, however there is a necessity for assessing additional risks linked to AI; the conviction confirmed also in Sartor, *The impact of the General Data Protection Regulation (GDPR) on artificial intelligence*, European Parliament Research Service, Brussels, 2020. In that sense also legal scholarship Aloisi, Gramano, *Artificial intelligence is watching you at work: digital surveillance, employee monitoring, and regulatory issues in the EU context*, in *CLLPJ*, *Special Issue "Automation, Artificial Intelligence and Labour Protection"*, De Stefano (ed.), 2019, Vol. 41, No. 1, p. 103.

least until draft of the proposal for the AI act was published in April 2021[16]). One probable reason for this is the centrality of the notions of information and data for GDPR as well as for machine learning algorithms. The crucial starting point for the analysis thus should be clarification of the meaning and mutual relation of data and information in context of information and communication technology (ICT) to ensure the sensible application of law in the face of technological change.

According to popular understanding, interconnection of two notions can be expressed by the following equation: information equals data plus meaning[17]. Given that data are facts, patterns, characters or symbols representing something from the real world, then information denote the meaning assigned to data[18]. Information must necessarily contain data, and therefore cannot exist without it. In relation to knowledge, information represents bigger and more complete concept than data.

This theory, however widespread and linear, does not suffice to explain the use of data/information concepts in the definition of personal data *ex* Article 4 paragraph 1 of GDPR stating as such "any information relating to an identified or identifiable natural person". The reference to "any information" encompasses "data providing any sort of information", that are "available in whatever form, be it alphabetical, numerical, graphical, photographical or acoustic" regardless if "kept on paper or stored in a computer memory by means of binary code"[19]. Personal data definition overturns the logic of the previously mentioned equation when it treats information as signs representing the reality. In other words, information does not merely include data – information stands for data. *Ergo*, information/data dichotomy upon which GDPR is built seems to be only illusory. Whole regulatory framework

[16] Proposal for a Regulation of the European Parliament and the Council laying down harmonised rules on artificial intelligence (Artificial intelligence act) and amending certain Union legislative acts.

[17] Floridi, *Information: a very short introduction*, Oxford University Press, 2010, p. 17. Floridi's account have likely popularised this definition of information, although its origins can be traced to other authors such as Davis, Olson, *Management Information Systems: Conceptual Foundations, Structure, and Development,* McGraw-Hill, 1985, p. 200, claiming that "information is data that has been processed into a form that is meaningful to the recipient".

[18] Bygrave, *Information concepts in law: generic dreams and definitional daylight*, in *OJLS, 2015*, Vol. 35, No. 1, p. 95.

[19] Article 29 Data Protection Working Party, Opinion 4/2007 on the concept of personal data, 2007, pp. 7-9.

of data protection is founded on the syntactic dimension of information (i.e. information as a sign representative of the knowledge it is meant to convey[20]), while notion of data becomes redundant.

Contrary to this, in the context of machine learning algorithms a clear and fundamental distinction exists between data and information. Here data are "abstractions of real-world entities not because they are signs that represent such entity, but because they are an ensemble of features or attributes, which, put together, will allow for a representation of such entity"[21]. The representation of real world entities, on the other hand, makes sense only when data are organised in useful patterns. "One can argue that data is transformed into information when the chosen ensemble of features of the concept are meaningful for the overall goal of the processing operation (which is to make predictions on the basis of available information)"[22]. Hence, if the theory that information is meaningful data (information = data + meaning) is valid, in the context of machine learning algorithms information would represent only partial reflexion of the real world because based on mere abstractions and not linear representations. The concept could seem more comprehensive if explained as a famous Plato's allegory about the Cave and Ideas[23]. Algorithm processes large quantities of data during the training ("learning") phase, the result of which is Idea in Platonic sense, corresponding to the concept of information herein. Idea is then used in the execution phase of the algorithm to verify the compliance with a new set of data – the positive outcome would mean that new data are ascribable to the same concept/Idea; instead, the negative result stands for data being considered irrelevant to the concept/Idea.

Above described theories find their purpose when treating regulatory frameworks of different hiring practices.

In the light of Article 4 paragraph 4 GDPR profiling means "any form of automated processing of personal data consisting of the use of personal data to evaluate certain personal aspects relating to a natural person, in particular to analyse or predict aspects concerning that person's performance at work, economic situation, health, personal preferences, interests, reliability,

[20] Gellert, *Comparing definitions of data and information in data protection law and machine learning: a useful way forward to meaningfully regulate algorithms?*, in *RG*, 2020, p. 7.

[21] Gellert, *cit.*, p. 14.

[22] Gellert, *cit.*

[23] Plato, *The Republic*, Oxford University Press, 1970.

behaviour, location or movements". Clearly, the provision refers to only one of possible kinds of profiling – automated profiling – which is a result of a process of data mining. Data mining, in turn, entails algorithmic analysis of large databases in order to reveal patterns of correlations between data[24].

Contrary to its automated form, non-automated profiling evaluates the datasets by means of strictly human-powered reasoning. Both processes present drawbacks. Automated profiling finds associations among data that are likely to reproduce in future, but ignores the causes and reasons of such associations[25]. Human profiling, vice versa, entails for the most part actions performed unintentionally and unconsciously. As a result, human profiling is also done "automatically" to large extent[26]. The reason for this is the existence of very human feature that illustrates how we operate (besides another very typical human capacity for reflection and intentional action) – a tacit knowledge – "we know more than we can tell"[27].

In the light of above described data/information theories, use of automated or non-automated profiling techniques will determine different outcomes with regards to meaning of data/information.

3. *(Follows) Recruitment practices involving automated profiling of the candidates in the light of right not to be subject to a decision based merely on automated processing* ex *Article 22 GDPR. Cleaving power of the algorithm-driven hiring tools*

As opposed to its purely human form, profiling *ex* Article 4 paragraph 4 GDPR applies to all the practices aimed at gaining information via correlations. Automated profiling is involved in selection process that deploys for instance the algorithm screening candidates' *curricula vitae*. This generally happens in the initial stage of the recruitment process in order to create a shortlist of candidates for interview. The algorithm scans the CVs of job candidates for keywords and other information believed to be correlated with

[24] See HILDEBRANDT, *Defining Profiling: A New Type of Knowledge?*, in HILDEBRANDT, GUTWIRTH (eds.), *Profiling the European citizen*, 2008, p. 18.

[25] HILDEBRANDT, *cit.*, pp. 23-30, The author indicates taxonomy of profiling processes divided into following categories: organic, human, automated and autonomic.

[26] HILDEBRANDT, *cit.*

[27] POLANYI, *The Tacit Dimension*, Anchor Books, 1966.

successful hires, such as experience, job titles, former employers, universities and qualifications. The system then creates a structured profile of the candidate and all the candidates are evaluated and classified[28]. Depending on company practice, all profiles may be subsequently controlled by humans or the company can focus solely on higher-ranked candidates.

From regulatory standpoint GDPR addresses the issue in the Article 22, according to which individuals are attributed a right not to be subject to a decision based merely on automated processing[29], including profiling, which produces legal effects or similarly significantly affects them. This provision is sometimes referred to as "Kafkaesque provision"[30], because of the way it is supposed to combat the suffocating powerlessness and vulnerability deriving from the inscrutability of personal data usage. The metaphor is inspired by Kafka's masterpiece The Trial, where the State's bureaucracy with inscrutable purposes used people's information to make important decisions about them, while at the same time denying the people the ability to participate in how their information was used. Automated decision-making enables employers to make decisions by purely technological means based on any type of data. It is irrelevant whether the automated decision-making is the result of an assessment of the data provided by the candidates themselves, or data deriving from observation or deduction. The important thing is that it is a decision without human intervention. Automated decision-making can be done with or without profiling, and vice versa, profiling can be executed without automated decision making; nevertheless, in the latter case GDPR provisions would not apply due to their relevance only for automated profiling.

Automated decision-making is involved in a vast number of situations ranging from low to high impact, the latter including the employment area and access to it. In order to avoid its negative consequences, Article 22 paragraph 3 allows for such process only if certain legal safeguards are met.

[28] SHEARD, *Employment discrimination by algorithm: can anyone be held accountable*?, in *UNSWLJ*, 2022, Vol. 45, No. 2, (Forthcoming), p. 6.

[29] The term right should not be interpreted as requiring prior opposition of the interested party, but rather as general prohibition for decision-making applicable whether or not the interested data subject takes an action regarding the processing of their personal data. Article 29 Data Protection Working Party, 02/2017, p. 19.

[30] ZUIDERVEEN BORGESIUS, *Discrimination, artificial intelligence and algorithmic decision-making*, Directorate General of Democracy, Council of Europe, 2018, p. 40.

In primis, the right to obtain human intervention[31] acts like a guarantee against the decisions of not-really-intelligent artificial intelligence (AI) and it presumably stems from (fully justified) diffidence with regards to automated decision-making[32]. Certain level of apprehension has been expressed also by European Commission when stating that humans could tend to rely too much on the apparently objective and incontrovertible decisions generated by AI, thus abdicating their own responsibilities to investigate and determine the matters involved[33]. By voicing such concerns, European institutions made claims that go deeper than a simple fear of biased algorithms – claims that see at stake "upholding of very human dignity, by ensuring humans (and not their 'data shadows') to maintain the primary role in constituting themselves"[34]. Relevant observations are strictly linked to data/information distinction in relation to the use of sophisticated algorithms. As previously stated with regards to algorithmic profiling, when data convey the abstractions of real-world entities – as opposed to a linear representation of such entities in human profiling – they fail to disclose complete image of what they represent. The main difference between human and au-

[31] Human intervention should be qualified as such when the review is carried out by someone who has the appropriate authority and capability to change the decision. Furthermore, the reviewer should undertake a thorough assessment of all the relevant data, including any additional information provided by the data subject. Article 29 Data Protection Working Party, 02/2017, p. 27. However, it is not clear who this human should be and whether he or she will be able to review a process that may have been based on third party algorithms, pre-learned models or data sets including other individuals' personal data or on opaque machine learning models. Nor is it clear whether the human tasked with reviewing the decision could be the same person who made the decision in the first place, still potentially subject to the same conscious or subconscious biases and prejudices in respect of the data subject as before. MAYER-SCHOENBERGER, PADOVA, *Regime change? Enabling big data through Europe's new Data Protection Regulation*, in *STLR*, 2016, Vol. 17, No. 2.

[32] Human evaluation involved in the process act as a guarantee, if not of transparency, at least of major "legibility" of employer's decision-making process. Legibility shortage appears in scholarly literature as a main disadvantage of algorithmic deployment, i.e. when automated decision-making is involved. MALGIERI, COMANDÈ, *Why a right to legibility of automated decision-making exists in the General Data Protection Regulation*, in *IDPL*, Vol. 7, No. 3, 2017.

[33] Amended proposal for a Council Directive on the protection of individuals with regard to the processing of personal data and on the free movement of such data. COM (92) 422 final, 18 October 1992, p. 26.

[34] MENDOZA, BYGRAVE, *The right not to be subject to automated decisions based on profiling*, in SYNODINOU, JOUGLEUX, MARKOU, PRASTITOU, *EU Internet Law: Regulation and Enforcement*, Springer, 2017, p. 77.

tomated profiling lies precisely in the understanding of data/information dyad. Hence, automated decision-making can be potentially executed against the backdrop of an incomplete portrait of natural persons[35].

Secondly, the existence of the right to explanation, yet explicitly missing from the legal provision of Article 22, has been repeatedly defended by scholarly interpretation[36]. Even the recital 71 GDPR mentions among other things that the use of automated decision-making, also in "e-recruiting practices", should entail "the right of data subject to obtain an explanation of the decision reached after such assessment". However, recitals generally lack an actual prescriptive content and therefore are not enforceable[37], although they do have an impact on the interpretative outcomes of the operative part of the regulation[38]. In any case, if the concept present in the recital is not given concrete expression in the actual body of the act, it is the terms of the latter that must predominate[39]. Legal scholarship has tried to deduce the right to explanation from Articles 13 and 14 GDPR, both dealing with the right to be informed[40]. These provisions establish the duty to inform individuals – clearly and with simplicity – about processing their data as well as to provide clarification about the logic involved and its possible consequences. Yet, this

[35] Even broader explanation has been offered in support of this theory, when arguing that algorithms are incapable of reflecting some aspects for human personality not merely because of inadequate modelling issue, but rather as a necessary consequence of the human condition. See HILDEBRANDT, *Privacy as protection of the incomputable self: from agnostic to agonistic machine learning*, in *TIL*, 2019, Vol. 20, No. 1.

[36] The first ever mention of the alleged existence of right to explanation could be found here GOODMAN, FLAXMAN, *EU Regulations on algorithmic decision making and a "right to explanation"*, in *IDPL*, 2017, Vol. 7, No. 4; the discourse drew from the experience of already previously existing right to explanation in the EU data protection directive which preceded GDPR, Directive No. 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and the free movement of such data.

[37] See CJEU, Case C-162/97, *Nilsson*, 1998, para. 54, according to which the preamble to a Community act has no binding legal force and cannot be relied on as a ground for derogating from the actual provisions of the act in question.

[38] CJEU, Case C-215/88, *Casa Fleischhandels*, 1989, para. 31: "recital in the preamble to a regulation may cast light on the interpretation to be given to a legal rule".

[39] See BARATTA, *Complexity of EU law in the domestic implementing process, 19th quality of legislation seminar* "EU legislative drafting: views from those applying EU law in the Member States", Brussels, 2014.

[40] DROZDZ, *Protection of natural persons with regards to automated individual decision-making in the GDPR*, Kluwer Law International, 2020, pp. 74-82.

theory has been proven insufficient in its reasoning[41]. Given that the duty to inform *ex* Articles 13 and 14 has to be fulfilled when the data is collected or within a reasonable period of time after obtaining the personal data, such notification duty would conceivably precede the decision-making process. On the contrary, right to explanation would require *ex post* inquiry about the decision taken by automatic means, to allow the interested party to understand the reasons for the specific decision[42]. Similarly failed the doctrinal theory founding the right to explanation in right to access under the provision of Article 15 GDPR. Article 15, paragraph 1 letter h), in the same manner as the Articles 13 and 14, grants the right to be informed about the existence of automated decision-making and to obtain meaningful information about the significance, logic involved and envisaged consequences, but – lacking said provision any time limits – it allegedly allows to invoke such right also *ex post*, after the decision has been made. Nonetheless, this interpretation has found its weak spot in the literal analysis of the provision's wording, suggesting the collocation of the right to explanation before actual decision-making process occurs[43].

The last but not least, rights to express the point of view and to contest the decision pursuant to Article 22, paragraph 3 seem to be strictly linked to the alleged right to explanation. Since they are both related to substance of the decision, impossibility to decipher the logic behind the specific automated decision make the rights to contest and to express the point of view merely "the empty shells"[44].

In the light of previous considerations, the actual enforcement of the right to explanation seems like a bleak prospect. And yet, one could argue that without the power to invoke opening of the black box behind the automated decision, the other safeguards listed in Article 22 lose their feasibility.

[41] Drozdz, *cit*.

[42] *Ex post* explanation represents the only feasible kind for the purposes addressing the *rationale* of a specific decision, without precluding the importance of *ex ante* explanation. The latter takes place before the specific decision has been made and thus falls under the scope of Articles 13 and 14 – the duty to inform which addresses the system functionality, the general logic, purpose, significance and envisaged consequences. Wachter, Mittelstadt, Floridi, *Why a right to explanation of automated decision-making does not exist in the General Data Protection Regulation*, in *IDPL*, 2017, Vol. 7, No. 2, p. 78.

[43] For the exhaustive explanation see Wachter, Mittelstadt, Floridi, *cit*., pp. 83-84.

[44] Brkan, *Do algorithms rule the world? Algorithmic decision-making in the framework of the GDPR and beyond*, in *IJLIT*, 2019, Vol. 27, No. 2, p. 107.

The only hope could come from the future CJEU case-law ensuring the broader interpretation of Article 22, inclusive of the right to explanation.

Consequently, the said GDPR provision does not constrain the use of algorithmic decision-making systems, but obliges the subject who processes the data to provide for certain technical mechanisms that ensure the humanisation of the final decision, thus rebalancing the disproportion of contractual power on site of job candidates/employees exposed to automated algorithmic decisions.

Scholarship addressed another harsh critique towards the provision of Article 22, stating its inefficiency in the context of machine learning algorithms and the fact that it can be easily sidestepped[45]. The reference to "decisions based solely on automated processing" indicates the total absence of human involvement in the decision process[46]. Any form of routine human intervention involved would mean that Article 22 is not applicable, even if such routine decisions may have the same result as entirely automated decision making.

Considering the abovementioned discrepancy between information/data meaning in GDPR provisions as opposed the concepts that machine-learning algorithms work with, one could consider inverting the logic behind Article 22 application. Algorithmic reasoning through correlations may not seem always acceptable from human perspective since it is not able to detect the causal relationships between real world phenomena. For instance, if company with majority of male staff searches for new recruitment, algorithm could attribute higher ranking to men candidates based on their affinity to previously hired candidates that listed interest in football in their CVs. Algorithms would not question human decisions implied in dataset, it could be probably even set to ignore the gender of applicants, but eventually it would result in discriminatory ranking. For this reason, the safeguards enshrined in Article 22 should apply whenever the algorithmic automated reasoning is involved at any stage of decision making. Rather than human intervention in the process excluding the protection of Article 22, *mutatis mutandis,* its safeguards should activate with every partially algorithmic intervention.

Algorithm-driven hiring tools reflect the cleaving power of digital tech-

[45] See for instance ZARSKY, *Incompatible: The GDPR in the Age of Big-data*, in *SHLR*, 2017, p. 995.

[46] Article 29 Data Protection Working Party, 02/2017, pp. 20-21.

nologies – i.e. their ability to modify the nature and our understanding of real world phenomena[47]. This seems to be particularly true in reference to the way they build the candidates' profiles elaborating partially representative information about them. The algorithms analysing CVs' content produce synthetic, inferential and predictive information referable to a single individual or a group; candidate's profile is therefore artificial and constitutes an information content that corresponds to the partial technological reproduction of some traits of personal or professional experience referable to an individual[48]. Rather than opposing this tendency humans tend to adjust their behaviour to algorithmic *ratio*, for instance by learning how to write a resume or CV that would not fail through the algorithmic filter[49]. Although such strategies may result in successful hiring in individual cases, in a long run they exacerbate homogeneity among candidates' profiles and thus further reinforce the risk of potential bias towards elements of uniqueness.

The more sophisticated or invasive AI technologies are involved in the process, the more will individuals resemble their digital interpretations of themselves – the inforgs[50]. The link between the person, his data and his identity is weakened precisely by the new technological processes of construction of personal identity; the processes separated from the individual insofar as they are delivered to the computational power of the technological apparatus and therefore to the self-referential figure of its computer-statistical code[51].

[47] Short explanation of this philosophical neologism can be found in Floridi, *Dizionario Floridi*, in *Corriere della sera*, 26 November 2021, available online: https://corriereinnovazione.corriere.it/cards/da-inforg-onlife-termini-linguaggio-digitale-spiegato-filosofo-floridi/cleaving-power.shtml where the author attributes to the digital the power to "re-ontologize" and to "re-epistomologize" the concept from reality through free operation of cutting and pasting. For instance, the GDPR has been "cut" from typical territoriality of the law and personal data has been pasted to personal identity of the subjects. For the more comprehensive reading see Floridi, *Digital's cleaving power and its consequences*, in *PT*, 2017, Vol. 30, pp. 123-129.

[48] Donini, *Profilazione reputazionale e tutela del lavoratore: la parola al Garante della Privacy*, in *LLI*, 2017, Vol. 3, No. 1, p. 40.

[49] Job seekers can easily find some advice concerning particular adequate wording matching the job description in the job advertisement, see for instance: https://www.linkedin.com/pulse/how-beat-applicant-tracking-system-ats-lee/.

[50] Floridi, *Dizionario Floridi*, cit.

[51] Messinetti, *La Privacy e il controllo dell'identità algoritmica*, in *CIE*, 2021, No. 1, p. 127.

4. *Algorithm cannot be lied to. Right to lie as a defence mechanism. Exception from* culpa in contrahendo *and its problematic application in automated profiling*

Now, so far, the use of modern technologies in the recruitment has been put under the scrutiny from the regulatory standpoint, carefully weighing the adequacy of individual legal provisions with relation to a degree of automation implied in the process. However, it is clear that the exposition about the "algocratic"[52] recruitment would not be complete without further analysis of its consequences and possible remedies, starting with rather classical legal issue – the right to tell a defensive lie.

Italian regulation of pre-contractual employment relationship is traditionally composed of Article 8 and 15 of Workers' Statute, both containing the negative legal obligation for the employer not to act in a certain way prescribed by law[53]; whereas legal basis determining the positive obligation towards another subject of the pre-contractual relationship is found in principles valid for all contracts, in particular general clauses of fairness and good faith *ex* Articles 1175 and 1375 Civil Code[54]. With regards to preliminary stage to employment contract, Article 1337 Civil Code imposes on the parties the obligation to behave in good faith when conducting the negotiations. This provision represents an open-ended clause "destined to materialise in the context of other norms[55]" and allowing the broadest use of the good faith principle beyond the individual Civil Code provisions. Moreover, non-

[52] For the concept of algocracy see in general DANAHER, *The threat of algocracy: reality, resistance and accomodation*, in *PT*, 2016, Vol. 29, No. 3; the author claims, rather pessimistically, that system in which algorithms have a decisive influence on the ways human interact is spreading fast and is growing into a complicated ecosystem slipping out of control of its human creators.

[53] Both provisions constitute antidiscrimination corpus of Workers' Statute particularly resistant to digital revolution thanks to its "amplitude of perspective" that anticipates the evolution of law; see LAZZERONI, *Lo Statuto tra vecchie e nuove sfide del diritto antidiscriminatorio*, in RUSCIANO, GAETA, ZOPPOLI (eds.), *Mezzo secolo dallo Statuto dei lavoratori. Politiche del diritto e cultura giuridica, QDLM*, 2020, pp. 254-255.

[54] In particular, Italian legal system offers general clauses as a remedy to asymmetry of bargaining power, which have made it possible to scrutinise the employer's actions in terms of abuse or reasonableness and have in fact subrogated to some extent the solidarity function of non-discrimination law. FONTANA, *Statuto e tutela antidiscriminatoria (1970-2020),* in RUSCIANO, GAETA, ZOPPOLI (eds.), *cit.*, p. 212.

[55] NUZZO, *La norma oltre la legge. Causali e forma del licenziamento nell'interpretazione del giudice*, Satura editrice, p. 47.

compliance with the good faith principle leads to liability for fault in the formation of contract – *culpa in contrahendo*[56].

Since by virtue of said general clause the negotiating parties "have left the realm of purely negative duties and entered the field of positive obligations in the contractual sphere"[57], the exchange of information in the recruitment process become relevant also under another profile – the truthfulness of information given to another party.

First of all, one must distinguish between the duty to inform and the duty of inform truthfully in a pre-contractual relationship. The former represents the duty to inform the other contracting party about the essential facts of the legal transaction; while the latter obligation means that party must refrain from transmitting incorrect information about essential facts. In fact, if one of the parties is obliged to inform the other party, then it makes sense that it does so in a correct and truthful manner. Otherwise, we would be faced with a distortion of the duty of information. What would be the advantage of a duty of information if the party could transmit wrong information? However, when negotiations of an employment contract are involved, the same legal issue seems of rather complex solution.

Truthful information must be provided in the employment contract negotiation stage under penalty of *culpa in contrahendo*. Yet, it is important to emphasise that this egalitarian perspective cannot disguise the different position in which the parties are in an employment contract. Introducing symmetrical duties when the parties are from the outset in a position of asymmetry means simply to perpetuate inequality. Thus, the interpretation of this legal precept cannot in any way ignore the social inequality and the extreme vulnerability in which the potential worker finds himself.

It should be noted that the information provided by the parties in the pre-contractual phase follows partially different objectives. This is because, if the information provided by the employer is relevant for the worker to form

[56] The concept of *culpa in contrahendo* has its origin in German legal doctrine of Rudolf von Jhering that postulates that in precontractual negotiations prospective parties must employ the necessary *diligentia*. See COLOMBO, *The present differences between the civil law and common law worlds with regard to culpa in contrahendo*, in *TFLR*, 1993, Vol. 2, No. 4, pp. 349-353. Author's comparative review shows uniqueness of Italian legal framework in incorporating the concept directly into Civil Code. COLOMBO, *cit.*, pp. 356-357.

[57] VON JHERING, *Culpa in Contrahendo oder Schadenersatz bei nichtigen oder nicht zu Perfektion gelangten Vertragen*, in *Jahrbuch fuer die Dogmatik des Privat-Rechts*, 1861, pp. 1-112.

his negotiating will in the first moment, it is also relevant for the purpose of clarifying the content of the contract and for the purpose of its proof. However, the information provided by the employee only proves to be important for the first purpose.

For this reason, employer must refrain from asking certain types of information that could potentially harm candidate's chances for obtaining the job. But what if the candidate "did get asked" to provide information banned by Article 8 Workers' Statute? One can envisage different consequences depending in candidate's reaction to illegal request. First of all, candidate can simply refuse to answer and remain silent but bearing in mind that silence will inevitably jeopardise the job opportunity with a risk of removing him or her from the selection process. By violating the ban *ex* Article 8 the employer no more incurs penal liability (the Legislative Decree No. 196/2003 that provided the amendment of Article 38 paragraph 1) but he will still respond before a judge in case of candidate's contestation. Nonetheless, having chosen silence and/or suing the employer, offers fully legitimate yet arduous alternatives – *cum tacent, clamant*, hence, the unanswered question could lead to unfavourable and equally tacit conclusions on employer's site, basing consequently the potential trial on the elusive evidence.

Given the factual inequality of the bargaining power between the parties the right to lie shall be advocated here as a functional defence mechanism against the illegitimate recruitment practices. Conversely, any false statements regarding requisites required for carrying out the work performance will constitute *culpa in contrahendo* for breaching of good faith principle; conclusion further confirmed in Supreme Court case-law[58]. Only if the lie acts as a response to inadmissible information request, only then it will not represent an unlawful conduct. Good faith does not require that a truthful answer be given to someone who asks illegitimate questions.

Given this premise, one can re-think with greater awareness the right to lie in the context of algorithmic hiring. Operational parameters and con-

[58] Cass. 7 July 2019 No. 18699. According to Supreme Court judges it is allowed to dismiss the employee who lied at the job interview only when, if he had told the truth, he would never have been hired. It is therefore necessary to verify the impact that the lie had in the employer's assessment. If this was decisive, it is possible to recall the violation of the duty of good faith in the conclusion of the negotiations and therefore the termination of the contractual relationship. If, on the contrary, the lie did not change the outcome of the job interview, which in any case would have resulted in hiring, then the new employee shall preserve the employment contract.

figuration of algorithms may not guarantee lawful practices, let alone ethically acceptable ones. The reason for this is that algorithm collects input data that can be not sensitive *per se,* but through its "reasoning" it will generate output data with sensitive content – like for example from the Facebook statuses and group memberships it can infer conclusions about possible pregnancy of the candidate[59]. Moreover, complicated reasoning of machine learning algorithms based on unknown associations leads to humanly "non-decomposable" decisions[60].

As a result, legally available defence mechanism against potential employer loses any practical meaning when such unlawful behaviour will stay hidden in the meanders of algorithm. With an obvious exaggeration it can be affirmed that, according to Sun Tzu's Art of War, employers obtain predominant position, since they – through the weapon of algorithms – behold the power to confuse potential worker so that he cannot fathom the real intent behind employer's actions[61].

Lying as legitimate self-defence against the hegemony of algorithmic employer could find a solid background in the plethora of empirically proven defensive practices. The first evidence about workers' defence mechanisms against algorithmic power shows us that to some extent successful manipulation or subversion on workers' site already exists[62]. While by manipulation workers point to circumvent the rules of algorithmic platforms, with subversion they creatively exploit the algorithmic loopholes. An example of the manipulation is Uber drivers using dark web GPS bots, enabling them to manipulate orders by misinterpreting fake data flows as genuine movement of the car[63]. Conversely, Uber drivers collectively and simultaneously turning

[59] Neutral data that are closely related to sensitive personal characteristics are called "proxy variables" and it can lead to eventual proxy discrimination. WACHTER, MITTELSTADT, *A right to reasonable inferences: rethinking data protection law in the age of big data and AI*, in *CBLR*, 2019, Vol. 2, No. 2, p. 22.

[60] WACHTER, MITTELSTADT, RUSSEL, *Why fairness cannot be automated: bridging the gap between EU non discrimination law and AI*, in *CLSR*, 2021, Vol. 41, p.12.

[61] SUN TZU, *Art of war*, Allandale Online Publishing, 2000.

[62] FERRARI, GRAHAM, *Fissures in algorithmic power: platforms, code and contestation*, in *Cultural Studies*, Taylor and Francis Online, 2021, Vol. 35, Iss. 4-5, pp. 814-832. Authors have conducted a research to find some forms of counter power in the hands of platform workers, namely manipulation, subversion and disruption.

[63] ADEGOKE, *Uber drivers in Lagos are using a fake GPS app to inflate rider fares*, in *Quartz Africa*, 13 November 2017, available online: https://qz.com/africa/1127853/uber-drivers-in-lagos-nigeria-use-fake-lockito-app-to-boost-fares/.

off ride-hailing app for a minute in a previously chosen location, deceives the app into boosting prices in what seems to be high request and low demand zone, hence turning into subversive practice[64].

As opposed to lying as a defence mechanism, such practices defying algorithmic management are not always legitimate or even addressing employer's unlawful behaviour (even if they must be considered in a broader context of precariousness of platform workers, who are the ones using them). In addition, in both above described circumstances the workers are well aware of the functioning of algorithm. *Vice versa*, if the mechanisms behind the hiring algorithm are unclear, it shall be extremely difficult for a potential employee to manipulate it with a lie. As a result, non transparency and obscurity embedded in algorithms remove the possibility to execute the right to lie against illegitimate recruitment practices.

5. *Final remarks*

Digitalisation of pre-contractual employment relationships has effects of further deteriorating the intrinsic imbalance between the parties. Said asymmetry does not stem from the relationship of subordination and therefore cannot benefit from the protective labour law regulation as a whole; instead, data availability about the work candidates and automated decision-making constitute *de facto* inequality between the employer and the weaker party that is not (yet) in the position of an employee. Fortunately, *corpus* of privacy protection norms in GDPR comes to the rescue. In particular when automated profiling is involved in the process of recruitment, Article 22 GDPR offers a set of rights to attenuate strictly automated decision. However, the right to explanation, albeit missing from the provision, seems to be the only remedy in order to address the "black box" nature of algorithms: any human intervention in the process or the right to contest the decision, even the right to lie as a legitimate defence against unlawful employer's inquiries, they all become unrealistic if the workers do not have the possibility to decipher the logic behind the specific automated decision; more

[64] Mamiit, *Uber drivers reportedly triggering higher fares through Surge Club*, in *Digitaltrends.com*, 16 June 2019, available online: https://www.digitaltrends.com/cars/uber-drivers-surge-club-triggers-higher-fares/.

transparency could, in addition, diminish the number of biased decisions that go undetected.

In conclusion, distorted, partial or obscure information and, *vice versa*, excessive knowledge of candidate's data, oversharing on social networks or machine-learning algorithm generating new information – all of this represents "information war" unfolding in the background of today's pre-contractual negotiations, and it is a sign of weaker party's democratic deficit in the "conflict".

Abstract

The essay deals with the pre-contractual phase of the employment relationship, the subject-matter largely neglected by labouristic doctrine which however deserves a more in-depth analysis in relation to new technologies. It starts with the acknowledgment of doctrinal indifference towards of this phase of the employment relationship and its roots; the Author then justifies the protective interventions of the legislator in the matter by so called theory of democratic deficit. The analysis provides some insight into the conceptual differences between the notions "data" and "information" depending on whether they are used in automated or human profiling, and underlines their improper use by the European legislator. Against this backdrop the inquiry addresses automatic profiling through the critical scrutiny of Article 22 GDPR. It concludes with the hypothesis of the right to lie as a lawful tool if used as a legitimate defence against banned investigations by the potential employer, and its failure when algorithms take over.

Keywords

Pre-contractual employment relationship, data and information, automated profiling, right to explanation, right to lie.