



How does artificial intelligence work in organisations? Algorithmic management, talent and dividualisation processes

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Abstract

This article analyses the forms of dividualisation workers undergo when they are linked to technologies, such as algorithms or artificial intelligence. It examines functionalities and operations deployed by certain types of Talent Management software and apps—UKG, Tribepad, Afiniti, RetailNext and Textio. Specifically, it analyses how talented workers materialise in relation to the profiles and the statistical models generated by such artificial intelligence machines. It argues that these operate as a nooscope that allows the transindividual plane to be quantified through a process known as dividualisation. Finally, by way of conclusion, the notion of the dividual is presented as the logic that characterises the human–machine relationship in the case of artificial intelligence and as the horizon of what Felix Guattari called “machinic capitalism”.

Keywords Algorithmic management · Dividualisation · Talent management · Artificial intelligence

1 Introduction

The year 2010s saw the rise and consolidation of so-called data mining (Zuboff 2020). This refers to technologies and applications that collect and process data as a preliminary step for the generation of knowledge and practical action.

The present article arises from the research project “Future Scenarios of Local Development Policies in the Post-Pandemic Era: From Biopolitics to Psychopolitics,” which is part of a broader project called “Power and Control Relationships in Citizen Science.” This work has been conducted within the framework of the Barcelona Science and Technology Studies (STSb) group, under the doctoral program “Persona y Sociedad en el Mundo Contemporáneo”, Department of Social Psychology, Autonomous University of Barcelona (Spain).

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This mining has been supported by infrastructure which has led to the massive use of sensors in all aspects of our daily lives, the development of the virtual environment, and the improvement of technologies, such as the Internet of Things, Big Data, and Artificial Intelligence (Crawford 2021). This has paved the way for the emergence of what can be called a new economy and a capitalist dynamics characterised by two different logics: (a) the use of a kind of semiotics lacking narrative and territorialised representation, such as indexes, graphs, rankings, etc., and that are characterised by a predominantly operational function; and (b) the abandonment of theories and languages focussed on creating tools of social definition and subjection; i.e. those centred on establishing social identifications, roles or classes (Guattari 2012; Lazaratto 2014; Deleuze and Guattari 2015; Zuboff 2020).

These data feed machine learning and clustering algorithms (Crawford 2021), which are processed to generate predictive statistical models and projected into future courses of action. One of the most important elements within such models is the generation of profiles (consumer, personality, worker, criminal, etc.). The profile is a tool that makes it possible to give materiality to and contextualise the data flows generated using technologies in our immediate everyday life, with a direct impact on the subjective reality of the individual through the personalisation, for example, of the content that a user will find online.

This logic has entered with special force and acceptance in the universe of work and organisations (Newlands 2021; Pignot 2021; Walker et al. 2021). Specifically, an area of thought has begun to be defined under the name of eManagement, eWork or the application of AI in organisations. In it, the examination of the relationship between the worker's performance and their relationship with the operations of these new technologies is central to the production of knowledge. For instance, within the Human Resources area, Talent Management is emerging as a specialisation in the strategic management of talent with the objective of maximising a company's performance or productivity. This objective is achieved by having the people with the necessary skills (both hard and soft), in the right positions, at the right time and at the right price (Capelli and Keller 2014). This also implies a certain ability to predict and anticipate staffing needs, in terms of both internal training and external recruitment, to meet changing market demands. With this approach, the use of IA for analysing talent moves away from the more individualistic perspective of human capital, in that it is not only related to the employee's accumulation of cultural, emotional and social capital, and the contextual issue and the role of the environment (such as having the right work team, responding to the challenges of the moment, being part of a good organisational culture or collaborating in the right project) gain value. This is where the statistical processing capacity of artificial intelligence, based on technologies, such as big data, and fed with machine learning models, plays a fundamental role in quantifying, comparing, predicting and optimising the talent, and other dimensions, of companies. These artificial intelligence machines are integrated within the human resources management software and applications offered by certain companies. For this reason, algorithmic management is currently used to designate the incorporation of these technologies in the strategic decision-making process of corporations and public institutions.

As we will show in the sections below, the previous situation has generated a literature concerned with analysing what type of organisational reality is generating the action of algorithms and the implementation of AI. Within this line of thought, some authors remark that algorithmic processing of deterritorialized data streams produces a new type of individuation that avoids the plane of the representational and the subjective (Rouvroy and Berns 2013; Bruno and Rodriguez 2021). Some consider this position to be overbold and radical. However, beyond the support and criticism it receives, this point of view has the virtue of highlighting both the debate over the kind of relationship which can be established between humans and algorithms or AI, and the type of individual and subjectivity such a relationship may generate.

Our research is framed by this debate and hopes to shed light on the following questions: (a) what kind of action does

algorithmic management (AM) perform on the so-called processes of definition or subjection of the worker? and (b) what kind of new relationship emerges from the human–machine binomial? This research is a qualitative study which began two years ago and is still ongoing. It has examined the functionalities and operations of some of the main software and applications designed to manage the area of Enterprise Talent Management and which use artificial intelligence to generate predictive metrics of worker performance. Alongside this, digital ethnography (Pink et al. 2015) is currently being conducted on these cases. Whilst theoretical in nature, this research illustrates our statements and ideas with an analysis of verbatim from the following technological companies selected in our study: UKG, Tribepad, Afniti, RetailNext and Textio. They were selected for three reasons: (a) they are considered the most active and cutting-edge in their genre; (b) they are very popular in the management field; and (c) they have a track record of development and implementation that promises to develop extensively in the coming years.

We consider this text to contribute on three levels. First, it offers a description of how these AIs produce validated knowledge. Second, it analyses how the creation of profiles and anticipatory schemas operates in the production of new worker subjects. Finally, it recovers the concept of the “dividual” as a dimension characterising the type of subject defined in the link between AIs and human beings.

To illustrate all these, the first section shows critical introduction of the main analyses thus far of algorithmic management in the world of work. Next, we present a tradition of thought which is gaining some popularity in the debate on how algorithmic governmentality works and affirms that it is possible to define a capitalism without subjects. The third section characterises artificial intelligence and algorithmic data processing as a particular type of knowledge tool and describes the processes on which it is based. The last two sections address the relationship between the worker and the algorithmic processes, using examples of the relationship between the concept of talent in the workplace and the implementation of AIs to illustrate how an individual is constructed and defined, based on the analysis of these empirical examples of artificial intelligence. Finally, by way of conclusion, the notion of the dividual is presented as the logic that characterises the human–machine relationship in the case of artificial intelligence and as the horizon of what Guattari (2012) called “machinic capitalism”.

2 Algorithmic management and the world of work

The introduction of algorithmic processes into the workplace has been the subject of many studies that explore the balance between positive and negative effects on workers of their

ongoing relationship with artificial intelligence as a new work entity. Algorithmic management automates functions, such as candidate search, task distribution, remuneration or team building. It is assumed that the delegation of these processes to artificial intelligence should result in improved worker performance and provide managers with objective data that will enable them to make better decisions with greater confidence (Chirica 2021; Parent-Rocheleau and Parker 2021; Holmström and Hålgren 2022; Deranty and Corbin 2024).

However, four possible dangers linked to the introduction of algorithmic management are usually pointed out. The first refers to the loss of autonomy on the part of the worker when it comes to organising time and prioritising their tasks (Cebulla et al. 2023), in addition to the tendency to put more effort into those from which metrics are extracted and leave aside others that are not monitored (Parent-Rocheleau and Parker 2021; Wood 2021). The second has to do with the effect of the feeling of surveillance that the employee experiences when they are permanently monitored and evaluated (Deranty and Corbin 2024), even on the emotional and affective level (Mantello et al. 2023). This feeling contributes to increased stress and anxiety (Parent-Rocheleau and Parker 2021; Cebulla et al. 2023), in addition to generating a frenetic pace of work (Wood 2021). The third danger is related to the biases that artificial intelligence reproduces if the data it draws on is not processed with care. In this way, the automation of management processes such as recruitment can operate with a positive bias towards those already socially privileged, applying worse metrics on the basis of gender, race, class and other axes of oppression (Chirica 2021; Parent-Rocheleau and Parker 2021; Deranty and Corbin 2024). Finally, the loss of human influence in decision-making is highlighted. This fact is aggravated by the processes of black boxing and lack of transparency that are inevitably associated with the use of Algorithmic Management technologies (Waldkrich et al. 2021; Chirica 2021; Parent-Rocheleau and Parker 2021; Holmström and Hålgren 2022; Deranty and Corbin 2024).

In this vein, one prolific field in the study of the effects of algorithmic management has been work platforms such as UpWork or Uber. These new forms of business can be defined as digital infrastructures that act as intermediaries between different types of users that allow them to offer their own products and services and facilitate their possible transactions (Srnicek 2017). The platforms are special in that they regulate their internal space in a completely automated way. From the collection of data on the behaviour of producers and consumers, rankings are generated that will serve the function of hierarchising the economy of care and the distribution of jobs (Stark and Pais 2020).

This new digital infrastructure places the individual in an ambiguous or liminal situation: they are neither a salaried

worker nor a freelancer. For legal purposes, they are freelancers. However, in turn, they must submit to the rules and operation of the platforms and be accountable to algorithmic management. Waldkrich et al. (2021) have analysed how management strategies are produced on the UpWork platform—which serves as a contact space between companies that require services and freelancers who offer them—and show that workers must develop tactics to satisfy the algorithm as well as the client.

Finally, algorithmic management has been defined as a new force of capitalist subjection that operates in the shadow of the supposed objectivity implemented by its mathematical operations. In this sense, Alcaraz et al. (2012) from a decolonial perspective show that human resource management based on data and metrics ends up generating a standardised and homogeneous worker supposedly comparable on a global scale without taking into account the particular context of each society. The export of this standardised subject translates into an act of colonisation from the West to the East since the latter uncritically adopts the model of the capitalist individual conceived solely from the point of view of productivity and efficiency. In this way, algorithmic management also contributes to the production of an individualistic emotional subject that disciplines such as Coaching or Positive Psychology have been promoting for years (Cabanas and Illouz 2019).

All these studies provide information on how the role of the worker is being redefined as they come into contact with algorithmic management, as well as the dangers this entails and the new levels of job insecurity. However, there are still not many studies analysing how the creation of profiles of every kind is the essential characteristic of the type of relationship established between human beings and artificial intelligence, and also, what type of individual could be promoting such an interaction.

3 Capitalism without subjects

As mentioned above, the concept of a capitalism which operates in a machinic way, outside the conscious action of individuals, and without attempting to create subjects, requires a more basic assumption: the existence of semiotics or flows of signifiers which come before signifying or production of meaning. This assumption can easily be traced back to the work of Jacques Lacan. This author postulated that to understand how meaning emerges, we must consider that a sign, unlike the approach of linguists, such as Jakobson or Saussure, is an element which is destabilised by “misunderstanding” (Lacan 2007). When this happens, the signifier–signified relationship is broken and the signifier is released. It lacks meaning, and it is asemantic. Lacan calls it the pure signifier or S1, and as it does not have semantic

value, considers it an ineffable and impossible element (Fink 1999). To recover its semantic function, imaginary in the words of this author, it must be articulated with another signifier. The signifying processes will take place in this chain of signifiers, and for this reason, Lacan affirms that the signifier always comes before the signified. The authors, such as Böhm and Batta (2010) and Contu et al. (2010), have shown the importance this formulation can have in the world of organisations.

Undoubtedly, Deleuze and Guattari's (2015) philosophy is inspired by the work of Lacan when they affirm that what we call "individual" is the product of a double process of activity deployed by capitalism. On the one hand, we have the action of so-called "social subjection". It operates on the basis of significant discourses and semiotics. In other words, the definitions of gender, position, social class, attitude, etc., that we use to define ourselves in the eyes of others are created from the discourses and practices that prevail in our daily environments. On the other hand, it operates an activity called "machinic enslavement". This refers to the action of the assigning languages that characterise the material infrastructures (signs of all kinds, circulating data, images, diagrams, graphics, etc.). Whilst the former is easy to observe and describe, the latter are molecular, not visible to the naked eye and are always embedded and circulating in complex material assemblies. Social subjection unfolds within social relations between humans and produces truths about bodies and masses, usually translated into self-regulatory practices (Foucault 1988). In contrast, machinic enslavement does not occur on a human plane but on a hybrid plane, in which individuals and objects are confused in the form of gears of a higher-level articulation. Both processes occur at the same time and in a mixed form. Machinic enslavement deterritorialises the subject and makes them participate as a gear of something superior by mobilising something inferior to them (e.g. certain skills or certain behaviours converted into data). Social subjection reterritorialises the subject through meaning, providing a false sense of unity, freedom and individual choice (e.g. the coach's speeches). The production of the individual always takes place on the basis of this double process of deterritorialisation–territorialisation (Guattari 2012; Deleuze and Guattari 2015).

Recently, Lazzarato (2014) radicalised this thesis and suggested that the true exercise of power in the twenty-first century is on the plane of machinic enslavement. The data we produce, the databases they constitute, and the relationships they establish with other digital entities are the real mechanisms which trap us and force us to operate on platforms and large networks of relationships which we know hardly anything about. Asemantic elements circulate on these networks, whose main activity is connecting based simply on their operativity or action. However, Rouvroy and Berns (2013), Stiegler (2013) and Zuboff (2020) are

probably the authors with the boldest conclusions in this line of thought. They argue that there is a type of algorithmic governmentality which characterises 21st-century capitalism and which skews towards the individual as a necessary element for the direct exercise of power.

The algorithmic governmentality process occurs in distributed surveillance and operates through the creation of profiles on the networks. Its logic is articulated based on three stratified levels: (a) dataveillance, (b) datamining, and (c) datanticipating. Thus, the authors affirm that each "like" is an act of algorithmic governmentality. This does not prohibit, like the law, or prescribe, as in discipline, but rather acts around the possibilities of a given reality (for example, the talent of a worker) to simply link them to a predicted future order (such as increasing productivity in a particular section of an organisation). This means an action with constant feedback from the result of the previous action. Algorithmic governmentality is a type of non-regulatory or apolitical which rests on the gathering, grouping and automatic analysis of such a vast quantity of data that it enables modelling and anticipation which can affect possible behaviours in advance. This action involves an apparent individualisation of the statistics, as far from the reference of a predefined average man, it operates around the generation of a self-based on its own automatically attributed profile and real-time evolution. Thus, for these authors algorithmic governmentality has three essential characteristics. First, it means individualisation of statistics, rather than resorting to the discipline's idea of an average human being. Second, it creates profiles in real time, which are our horizon of future behaviour. Finally, it does not produce any subjectification. It dodges and avoids reflexive human subjects, feeding on infraindividual data which are insignificant in themselves to execute supra-individual models of behaviour or profiles. Its action does not appeal to the subject, and it does not ask him to explain what he is and what he may become. The moment of reflexivity needed for there to be subjectification is constantly postponed.

Obviously, this perspective has been criticised. For example, Cooper (2019) and Lury and Day (2019) argue that the subject cannot be skewed in this algorithmic governmentality process, as although it is limited to being a simple data producer or trace of its activity in the networks, it is still the initial element and the target of power relationships. Beyond the opinion one may have in this debate, what is interesting is that it brings to the table important questions about how the actions of algorithms and artificial intelligences operate in our everyday contexts of activity, and over what type of individual this action is created.

In the context of this debate, an interesting literature has appeared recently which asks: (a) if the type of government which imposes algorithms and artificial intelligence fits into the Foucauldian notion of biopower (Walker et al. 2021;

Mantello et al. 2023); (b) in a very similar vein, whether a type of surveillance is configured which operates without the observed/observer duo (Newlands 2021); (c) how algorithms suppress all options for resistance in the workers (Pignot 2021); and how the activity of AI in microwork makes invisible its necessary relationship with the human being (Tubaro et al. 2020).

As mentioned above, our research forms part of this emerging line of thought, and makes new contributions, giving examples of AIs which operate in the sphere of the link between work and talent: (a) a description of how these AIs produce validated knowledge, (b) how the creation of profiles and anticipatory schemas operates in the production of new worker subjects, and (c) the notion of the “dividual” as a dimension which characterises the type of subject defined in the link between AIs and human beings.

4 Artificial intelligence is the great producer of knowledge

The first example with which we wish to begin our analysis is the company Ultimate Kronos Group (UKG). It offers an algorithmic management solution that allows, amongst other functions, to automate most of the human resources processes, such as for example, leave management, vacation planning, payroll calculation or attendance and working time control. For this purpose, it uses an interactive digital clock model called UKGInTouchDX that facilitate communication with other devices, serve as a warning of unread messages, manage agenda and calendar, control the work time dedicated to each project, have geolocation options and facial recognition and card reading. They can also be linked to other devices, such as cell phones and biometric terminals, of the contracting company itself. Thus:

The UKG InTouch DX is designed with efficiency and convenience in mind, anticipating the user’s next task and combining related actions for faster interactions. For example, the My Time function brings the time-card and schedule together, so employees can quickly and easily compare punches to scheduled hours to verify accuracy and minimise exceptions. But the convenience doesn’t stop there. InTouch, DX empowers users to perform many common actions (punching in and out, transferring locations or projects) at multiple clocks during a single shift. Administrators can configure DX devices across your facility to enforce schedule restrictions, and the clocks can access and enter employee data in the cloud in real time—so your people can interact with the most convenient timeclocks throughout the shift for enhanced efficiency and seamless continuity. (UKG 2022: 5)

Introducing UKG TouchFree ID™—now available as an integrated option with the DX. TouchFree ID is incredibly easy to use. Once you interact with it, there’s no need to reintroduce yourself—the system never forgets a face. Just smile and you’re good to go. You can count on TouchFree ID’s dual-camera technology to recognise everyone in your workforce—any face, feature, or height. Touchless technology also makes clocking in much more convenient. You can just stroll up, glance over, and go about your day. (UKG, 2022: 4)

These functionalities belong to the field of surveillance adapted to the reality of contemporary, decentralised and flexible work. They represent a sort of distributed version of the panopticon of disciplinary societies described by Foucault (1995) in which the eye moves from the inside to the outside and generates a surveillance that no longer requires confinement in the institution but becomes total and immanent. This new version of the panopticon has been called synoptic, where the prefix syn- indicates in turn “all” and “at the same time”, and had already been anticipated by Deleuze in his famous Post-scriptum as a key factor in the passage from discipline to control (Deleuze 1992).

However, beyond this monitoring exercise, which is undoubtedly relevant, there is one action that we find particularly striking: the collection and processing of data that operates for predictive purposes and is therefore projected into the future. The company UKG, through its AI software, can collect real-time data regarding daily work demand, the performance of workers and teams on projects, engagement or resources used on each project. From its processing, artificial intelligence elaborates work organisation proposals based on the priorities and objectives set by managers to optimise productivity. To this end, it makes predictions about which are the best combinations of workers to form teams for specific projects (taking into account factors such as individual skills or the impact of their combination on total productivity) or which tasks should be assigned to each individual to maximise efficiency and productivity. In addition, its AI is able to predict the risk of leakage, to detect high-performers and low-performers, and to generate customised coaching and training plans.

During times of change and uncertainty, it’s never been more important for businesses to adapt and take care of their people. To not only survive but thrive you need a way to predict, analyse, and address the gaps between your frontline workforce today and your human capital needs of tomorrow. UKG Pro® Strategic Workforce Planning (formerly UKG Dimensions® Strategic Workforce Planning gives you a longer term view into your future staffing and business needs so you

can prepare for any scenario and take a more strategic approach to your people strategy. (UKG, 2023a: 1). UKG Pro Workforce Management™ Analytics (formerly UKG Dimensions® Analytics) delivers insights instantly to your frontline and operational people managers so they can confidently make impactful labour decisions backed by data. Easily identify, manage, and optimise opportunities for labour cost savings and productivity, with KPIs, metrics, and thresholds that help your teams stay on track with your business goals in real time. (UKG, 2023b: 1).

UKG Pro Workforce Management™ Data Hub (formerly UKG Dimensions® Data Hub), our powerful enterprise-grade data warehouse (EDW) on the Google Cloud Platform (GCP), removes those barriers to provide your organisation virtually unlimited access to large volumes of workforce management (WFM) data—so you can strategically analyse your WFM data with your preferred business intelligence (BI) tool and achieve better business outcomes. (UKG, 2023c: 1)

The above raises questions such as the following: by what procedures does artificial intelligence operate to predict and optimise the workforce; how do these operations impact the individual? Some authors (Parisi 2016; Hui 2021; Pasquinelli and Joler 2021; Svensson 2023) warn against making the mistake of conceiving artificial intelligence as human-like cognition. Instead, Pasquinelli and Joler (2021) propose that it should be understood as an instrument of knowledge which the authors call *nooscope* (*skopein* means to look or examine and *noos* means knowledge). Artificial intelligence, like any knowledge tool, requires an observable object (training data), uses an observation tool (learning algorithm) and produces a final representation (statistical model). Its novelty, however, lies in the fact that it enables a new type of universal knowledge, a new episteme in which the causality of phenomena is replaced by the statistical distribution between data correlation patterns (Pasquinelli and Joler 2021; Sadin 2020).

For artificial intelligence to operate as a nooscope, three procedures are key: dataveillance, datamining and profiling (Rouvroy and Berns 2013). Dataveillance refers to the massive process of converting the world into data and collecting it to feed algorithms and artificial intelligence. Since the second half of the twentieth century, the world has been populated with an infinite number of sensors that are responsible for collecting all kinds of data on a wide range of phenomena in our daily lives and that end up feeding the algorithms and artificial intelligences that operate in our work spaces.

However, the “raw” data collected directly from the world are not yet operational, they must be treated and processed in search of correlations that allow metadata or second level data to emerge. This process is called datamining. Machine

learning and clustering algorithms are used to statistically group the data and finally extract important levels of correlation between them. It can be stated in this sense that the datafication of the world fulfils the rationalist dream of converting all everyday phenomena into mathematical language. In other words, a vectorization of reality is created (Virilio 2006) that enables an absolute comparison between phenomena, regardless of their nature (Sadin 2020). Enhanced with today’s improvements in computational processing power, this comparison now occurs at a scale and speed undreamed of a few years ago. That is precisely what UKG’s artificial intelligence does: it compares workers on a global scale and in real time to create an optimisation of the worker in each instantaneous context and in each immediate action they perform.

The last process that artificial intelligence executes as a nooscope is the preparation of statistical models, which when applied to the level of the talented worker, implies the generation of profiles (as there are consumer profiles, customer profiles, criminal profiles, terrorist profiles, etc.). The profile as an object belongs neither to the plane of the individual nor to the collective but to an intermediate plane composed of infra- and supra-individual fragments, i.e. the plane of the individual (Celis Bueno 2020; Bruno and Rodríguez 2021).

5 Profiling: from worker to talented individual

To illustrate how profile generation works, we will review the following examples.

TribePad is a recruitment software for different types of companies that allows the automated management of jobs that are vacant and waiting to be filled. It manages the design of the offer, its launch on the network, the selection of potential candidates and the scheduling of interviews. TribePad’s artificial intelligence processes resumes and inspects the social networks of potential candidates (both active and passive¹), scores them and builds a ranked list (a talent pool) according to the skills required by the company for the vacant position and also predicting the progression of candidates in the workplace. In addition, TribePad includes artificial intelligence with facial and voice recognition that predicts the psychological profile and emotional intelligence of the applicants who end up interviewing, and scores them according to the organisational culture criteria used in the company.

¹ Passive candidates are those who are not actively looking for a new workplace but who are likely to accept a change of position if they receive a satisfactory offer.

Say what you're looking for, and Tribepad's AI-Assist will find it for you. AI-powered scoring, rating, ranking and smart personality profiles mean you can review best-fit people first.

- Facial recognition.
- Speech analytics.
- Machine learning.

For starters, facial recognition technology has grown incredibly sophisticated, allowing video interviewers to determine a candidate's mood and posture. Are they pessimistic? Optimistic? Overly nervous? You may decide to split the video and audio tracks to analyse each individually, paying attention to body language and their focus on certain words and phrases.

[...]

If you're recruiting for a role in a niche field, it's common to create questions that are geared to elicit particular responses from candidates. To track this, you may come up with a list of priority keywords that you'd expect the ideal candidate to say in an answer to a given question. An ATS [Applicant Tracking Systems] can then 'listen' for these keywords across tens or even hundreds of interviews, and 'score' a candidate's responses automatically. (TribePad 2024).

As a second example, Afiniti offers an artificial intelligence aimed at salespeople that predicts the best salesperson–customer interactions in terms of making a sale. Using speech recognition, millions of conversations are processed to generate different behavioural profiles of both salespeople and customers in order to predict which interactions will be most successful. When a company that has contracted this software receives a call from a customer, Afiniti's artificial intelligence calculates in real time with which of the available sales representatives there is a greater probability of getting a sale and automatically directs the call to that person. This is how this technology is presented:

Afiniti's CX AI dynamically decides how contacts are optimally assigned, which channels and offers are most likely to succeed, and what the appropriate agent incentives are. The result is an ongoing, measurable improvement to customer lifetime value and enterprise profitability.

[...]

Afiniti deploys specialised machine learning techniques to identify, predict, and understand patterns of human behaviour across large sets of aggregate data. Afiniti's technology analyses information, such as customer intent, preferences, and agent history, to make future predictions at a customer

or agent level that beats skills or rules-based systems. (Afiniti 2024).

The artificial intelligence machines of TribePad and Afiniti use statistical patterns obtained from the comparison of the data available to them to generate profiles linked to specific contexts: in the first case on the skills and psychology of a worker in a specific job and in the second case on the best "match" between commercial and buyer profiles. If "talent", as we have seen, is a concept related to having the right people with the right skills, in the right job, at the right time and at the right price, we can affirm that the artificial intelligences of both companies have an active role in the generation of this talent. However, we are still faced with the challenge of describing the operations that give rise to particular profiles and the role played in them by both the individual and the algorithm.

Let us begin to answer this question by recalling that profiling algorithms do not use fixed categories to classify individuals but are based on the premise that individuals always share characteristics (Lury and Day 2019). Thus, a profile is not the product of individual characteristics but of the relationality established between individuals, i.e. their behaviour in a specific social context. It refers more to the interpersonal than to the intrapersonal and is not a substitution of the individual but a recombination of individual traits (Bruno and Rodriguez 2021).

Simondon's concept of the transindividual (2020) helps us to better understand what the profile–individual relationship consists of. The author explains how individual–group–society relations are produced and for this he moves away from psychologistic views (society as exteriorisation of the individual) as well as sociologistic views (the individual as interiorisation of social exteriority) and proposes the intermediate plane of the transindividual. This refers to the joint existence of individuals as elements of a system that implies potentiality and meta-stability, a force that does not localise individuals (it does not subjectivise them) but makes them coincide through communication relations. The transindividual is an individuation in a group that crosses the individual individuations that compose it, generating a transductive relationship of mutual influence. It is important to understand that both individuations are never perfect or complete, there is always a pre-individual residue that opens to new possible forms of individuation.

A fourth example will allow us to illustrate the above. RetailNext is a software aimed at maximising productivity in apparel stores. Its artificial intelligence, called Aurora, relies on data collected by motion-sensor cameras installed in retail outlets. These cameras collect data on the movement of both customers and workers to generate kinetic maps that show the busiest areas of the store and, therefore, the most strategic ones. But Aurora is capable of something more impressive: it generates consumer profiles

of customers from their movement patterns through the store, time spent shopping or interactions with products. It also collects data on customer-dependent interactions and whether they lead to a sale or not. To detect the most talented workers, Aurora takes into account which employees make sales in their interactions with “difficult” customers, i.e. customers whose movement patterns denote that they are indecisive or that they have only come in to look without any intention of buying.

Segment your shopper data to zero-in on the in-store behaviour of specific shopper profiles.

- Purchaser vs non-purchaser: analyse shopper journeys by segmenting shoppers into purchasers and non-purchasers.
- Shopper vs staff: get insights into when, where, and how long shoppers interact with your associates, and how this impacts purchase behaviour.
- Demographics: the AI-based demographics engine anonymously segments your shoppers by gender. (RetailNext 2024).

Aurora produces a group individuation: a customer is going to be classified in a profile (produced through the traces of past customers) depending on its path through the establishment, whilst this same movement will feed the statistical model that will refine the profiles. The customer and the profile have a transductive relationship of mutual influence, they are produced at the same time and in a feedback way. In the same way, the talented staff is also produced by Aurora from a group individuation. Being identified as a talented entity has less to do with your skills than with your relationality with customer profiles classified as “difficult” and the result of this interaction in terms of sales. The individual individuation of the talented employee is always crossed by the group individuation of their interactions with their customers, who, in turn, are also crossed by the group individuation of the profiles generated by Aurora.

Thus, the talented worker can be understood as a profile or a group individuation or transindividuation that cuts across individual individuations. As we have been saying, the profile is not the product of a sum of individuals as units but of the composition of a multiplicity of individual fragments in their given relationality in a concrete context—which in the case of artificial intelligence are what we call data. To designate this individual conceptualised from its fragmentariness, we propose to resort to the notion of “dividual” (Raunig 2016; Bruno and Rodriguez 2021). If at the level of the individual, the individual is characterised by its unity and its fragmentation implies loss, lack and mutilation, at the level of the dividual, individuals are characterised by their divisibility and recombination.

Currently, the clearest examples of this dividual logic are found in biotechnology (where organs, cells and tissues are extracted from the individual body, manipulated and recombined with other bodies) and in the digital world (from the extraction of data, the search for correlations and the elaboration of profiles or statistical models). The artificial intelligence-based software we have analysed materialises talent by quantifying what is dividual. Artificial intelligence as a nooscope is an instrument of knowledge that makes it possible to create and access this dividual. The statistical model generated (the profile) is a recombination of split fragments that produce a transindividuation or group individuation. Bruno and Rodriguez (2021) propose to call this process dividualisation by resorting to the analogy generated by the production of individuation proposed by authors such as Simondon (2020).

6 The materialisation of the talented dividual

We can illustrate the aforementioned process with a final example. Textio (2024) is a software that automatically reviews the texts generated by a company (from emails, job offers or blog posts) and scores them in reference to the engagement they will generate to a specific audience (for example, men, women, millennials or migrants). Textio proposes vocabulary changes to make the texts attractive to the diversity of target groups. The software produces these recommendations through mass processing of similar texts and scoring the type of response received. In this way, Textio finds correlations between certain vocabularies and the generation of engagement in specific profiles.

The algorithms that power Textio’s predictive engine are not based on academic research or opinions. They are based on hiring data from millions of actual humans who have applied to actual job posts and responded to real recruiting emails—in fact, 95% of our customers contribute their own hiring data. There is nothing hand-wavy or hypothetical in Textio’s data models. As you write in Textio, you are tapping into a global community of writers and using their hiring outcomes to improve yours.

After reading the excerpt, let’s assume that a worker receives a job offer for a position in a company that uses Textio. The software will have taken certain fragments of the potential candidate’s profile (age, gender, place of birth, field of work, etc.) and will have predicted their profile based on its correlation with databases of previous candidates worldwide. Their profile will be attributed certain vocabularies and forms of expression that have generated positive responses from candidates with a similar

profile to theirs. The potential candidate will receive a text that will appeal to them as an individual, transmit values, a political vision and a business culture. A response will be produced in the candidate as a subject, and they will individuate in one direction or another depending on whether or not they identify with what the text conveys. We are in the field of social subjection. But let's remember how this text came about. Textio software does not understand values or life models. It is not interested in discourse, instead it only finds correlations between certain profiles and certain forms of writing. Although it is concerned with words, it moves in the world of the non-significant and the purely operational: certain forms of writing either produce a positive engagement or they do not. Textio's software integrates the individual into a superior articulation through correlating fragments. It moves on the plane of machinic enslavement and dividualisation. As we see with this example, individuation or subjection and dividualisation are co-present. They occur simultaneously and one cannot be understood without attending to the other.

In this way, the materialisation of the talented worker is a product of the joint action of social subjection (discourses) and machinic enslavement (algorithmically prepared profiles). When the artificial intelligence machines of UKG or TribePad evaluate, for example, a potential candidate for a job, they dividualise them through measurement and datafication. In this way, the individual is deterritorialised and algorithmically assembled with other divided individuals—for example, in terms of skills, gestures, behaviours or modes of writing—to generate a profile. This profile, made up of dividual fragments, in turn serves to assess the candidate's fit as part of a particular cog (the specific workplace) in the capitalist productive machine. This adequacy is translated into scores and rankings and is therefore mathematised into something that is purely operational.

The algorithmic process of profile generation and candidate evaluation evades the plane of the linguistic as a generator of meaning and appeals to the subject without passing through the plane of the subjective (Rouvroy and Berns 2013; Bruno and Rodriguez 2021). There is no discourse but assigning semiotics (indexes and rankings) that reterritorialise candidates according to whether they are more or less talented for the workplace. This process occurs as an entanglement (Barad 2007): in each specific context, these indexes acquire a performative character by assembling with discourses, other statistics, organisational cultures and other types of phenomena to materialise what a talented subject will be (Lupton 2018). The “talented” individuals feed the profiles as they affect the process of subjectification of the talented individual. A feedback movement that, with the speed and volume of current information processing, occurs constantly and practically in real time.

7 Conclusions

The materialisation of a dividual worker, for instance the so-called “talented worker”, in algorithmic management practices can be conceptualised from the co-presence of the processes called “social subjection” and “machinic enslavement”. Thus, the artificial intelligence that drives these practices is nothing more than an instrument of knowledge that makes it possible to access and quantify the level of the transindividual. In other words, to open an intermediate space between the individual and the social where a second individuation or group individuation takes place: the profile.

The profiles of workers resulting from the algorithmic management processes are related in a feedback way with the individuals (who feed data to the profile and are profiled by it as individuals), producing a second individuation that we have called “dividualisation”. Individuation and dividualisation are co-present in the materialisation of the subject in each concrete context of artificial intelligence use. Algorithmic Management makes it possible to renew in real time the form that talent, in the case of our example, takes in each of these contexts and it is observed that in spite of the aforementioned co-presence, the processes of dividualisation and machinic enslavement impose themselves and avoid the subjective and individual level.

Our intention is not to denounce the action of artificial intelligence and the new modes of subjection it opens up. On the contrary, we are committed to approaching it from a pharmacological perspective (Stiegler 2013). In other words, understanding that we are facing practices that constitute both a risk, as the new forms of power relations between AI designers and end-users (Maas 2023), and a possible solution to a multitude of problems of all kinds, such as improving self-reflexivity regarding one's own biases (Kammerer 2020). Similarly, it is worth understanding that the above statements open the space for future research focussed on exploring the power relations, resistances and appropriations that emerge with the primacy of the processes of dividualisation in the constitution of the subject in the current context of “machinic capitalism”, as Guattari (2012) calls it. To this end, one must address the modulation processes deployed by algorithmic processes that, unlike the fixed mould of confinement and discipline or the action on the population of biopolitics, act through an immanent standardisation in which the form taken by the subject is never quite solidified as it is subtly modified through the application of constant forces.

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Declarations

Conflict of interest None.

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