ME, MY WORK, AND I: THE QUANTIFICATION OF EMPLOYEES' PERFORMANCE AND THE DISRUPTION OF SELF IN WORKPLACE SURVEILLANCE CONTEXTS

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Abstract

Many companies introduced advanced workplace surveillance technologies, including monitoring body metrics and productivity. The popularity of these technologies calls for a multidisciplinary debate on their effects on work and employees. Arguably, there are reasons why monitoring in workplaces could be seen as a necessity for practical endeavours, such as billing of clients and organisation of the company and processes. However, workplace surveillance impacts the understanding of work and individuals' identities. This thesis argues for the data tracked and provided by surveillance technologies being influential concerning the employees' identity and social relations in the workplace. The extent to which productivity-tracking technologies disrupt the employees' identity leads to their loss of autonomy and, through heightened power relations, to them experiencing epistemic injustices. Counteracting workplace surveillance's impact on employees, humanistic management is presented as a way to guide a more human-centred management that supports employees in their autonomy and development. This thesis contributes to the academic discourse by depicting the far-reaching effects of these technologies on workers, their identities, and how they relate to agency, autonomy, and well-being in an interdisciplinary manner.

Introduction

The discourse about the future of work is either depicted in dream-like ways, as a path toward greater flexibility and freedom, or on dystopian terms, as the workplace is claimed to become a space in which every thought and move is watched and optimised by algorithmic or human management (Levy, 2023, pp.6-7). The use of workplace surveillance for the optimisation of processes and control purposes is not a new phenomenon. However, there has been an increasing use of workplace surveillance technology and growing intrusiveness of such technologies across all industries and job levels, which makes the subject indispensable to be discussed (Mettler & Naous, 2022, p.6; Aloisi & de Stefano, 2022, p.296; Ajunwa et al., 2017, p.109). Indeed, there are reasons why monitoring in workplaces could be seen as a necessity for practical endeavours such as billing of clients and organisation of processes and staff management (Aloisi & Gramano, 2020, pp.101, 105; Ajunwa et al., 2017, p.137; Measuremen, 2021).

However, this thesis states there are problems with workplace surveillance regarding the effects it has on the employees and the social dynamics at workplaces. People tend to spend a significant amount of their life at work. Therefore, workplaces are assumed to substantially impact people's lives because they can be places for personal growth and meaningful social relationships (Gheaus & Herzog, 2016, p.70). Workplace surveillance technologies gather information to quantify and evaluate the employees' work and exert control. It has been argued by advocates of using monitoring technologies at work that collecting more information on employees' behaviour increases their well-being and overall efficiency (Maltseva, 2020, p.496; Moore & Piwek, 2017, p.310). On the contrary, others claim that workplace surveillance technologies have a dehumanising effect and endanger the dignity of employees and their

capability to live a self-governed life (Lamers et al., 2022, pp.1-2; Moore & Piwek, 2017, p.312; Bronwicka et al., 2020, p.9).This thesis investigates how extensively the quantification of employees' work through productivity-tracking technologies disrupts their identity and alters workplace social relations. Concerning this, it is assumed that the information on employees' productivity that is tracked and provided by surveillance technologies influences the self-understanding of the employees and their social relations in the workplace and nudges employees into effective and productive behaviour. Thereby, three hypotheses will be established in this work. Firstly, it will be shown that work is a meaningful activity to people and that it is valuable to investigate workplace surveillance technologies today because of the promises and harms they hold for individuals' lives. Secondly, the thesis will show that employees' identity formation and autonomy are impacted by the data received and the practice of productivity tracking. Lastly, it will present how using productivity-tracking technologies at work leads to epistemic injustices through a heightened power imbalance and lack of transparency. A secondary literature analysis, including interdisciplinary literature from philosophy, social sciences, business ethics, economics, and psychology, as well as case studies, will be used to approach these hypotheses. This thesis aims to enrich the academic discourse by including more of a philosophical perspective through an analysis of identity and the impact of workplace surveillance technology. Discussing identity in the work surveillance context is ethically relevant because of the harm such technologies impose on employees' agency and autonomy. Further, this work acknowledges the contextuality of this topic and incorporates voices and perspectives from several fields. Here, the goal is to find a realistic way to promote human-oriented workplaces and mitigate harm to workers by allowing for comprehensive and wide-ranging input.

Chapter 1 aims to set the scene and offers terminology regarding work, surveillance, and productivity. Here, the meaning of work for the individual will be examined. It provides insight into the different tracking practices in workplaces and the origin of the phenomenon of workplace surveillance. Additionally, this chapter presents different perspectives on workplace surveillance by stating the downsides and benefits of their usage. This aims to provide a nuanced way of examining the surveillance technologies used. Chapter 2 shifts the focus from the broader perspective of work and surveillance technologies to a detailed look at the relationship between employee's identity and the information the tracking technology provides. After categorisation follows the identification, people adapt to the related categories and alter their behaviour. It will be shown that identity depends on social groups and on information that individuals receive about themselves. The chapter will state that employee self-evaluation is mediated by the tracking technology and shaped by feedback and expectations in workplaces. This dependency and the nudging into behaviour desired by the company lead to strengthened power relations and productivity-tracking technologies endangering employees' autonomy and agency. This impact supposedly poses inherent problems regarding employees' identity and autonomy while amplifying power relations and control mechanisms. Chapter 3 will demonstrate how

workplaces using productivity-tracking technologies lack transparency because of simplification through datafication[1] and existing opaqueness. Based on this, it will be argued that this lack and the heightened power dynamics impose an information asymmetry that makes it difficult for employees to be autonomous or hold employers and managers accountable for their decisions based on the technology's output. In this chapter, it will be displayed that the extent of the disrupting impact that productivity-tracking technologies have on employees seems partly dependent on organisational factors. Therefore, this thesis proposes humanistic management as an approach towards more transparency and accountability and building a workplace that fosters the participation of employees and supports their autonomy in workplace surveillance contexts. The thesis concludes by summing up the main points of the thesis' argument and addressing limitations as well as the potential for future research.

Chapter 1: Workplace Surveillance Technology and Emerging Effects

1.1 Introduction

The first chapter is the starting point of the discussion on workplace surveillance and aims to set the scene for later analysis. The emergence and development of workplace surveillance will be investigated, and the chapter closely examines the effects on individual employees and teams due to novel workplace surveillance technologies. The chapter starts by stating the terminology and general setting with a closer look at terms such as work, productivity, and surveillance, what these words entail, and how they relate to each other in practice. After, workplace surveillance in the past and today will be displayed while focusing on novel surveillance technologies emerging in offices today. These technologies impact work environments and the actors within them, which implies ethical problems to some, and others regard them as opportunities to improve work. To achieve a more nuanced view of workplace surveillance, technologies' positive and negative effects for purposes such as (self-)tracking of productivity and health statuses will be discussed. This section builds the foundation for upcoming chapters on the impact of workplace surveillance technology on the employee's identity, power dynamics in workplaces, and the relevance of this topic for people's day-to-day lives.

1.2 Terminology: Work and Surveillance

1.2.1 What does 'work' mean?

Before discussing surveillance technologies at work, it needs to be elaborated on what work actually means. Work is an activity that plays a significant role in the lives of many as it can be sense-giving and leads to the production of goods that are at times necessary for people's survival in the sense that it provides livelihood. Yeoman (2014) presents working similarly as the condition for people's ability to survive and flourish as well as the source for social and material goods that shall fulfil human's

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[1] Datafication is understood as capturing information on real life events and processes in the digital form of data sets.

individual or collective needs (p.1). Moreover, work is a source of human action that holds individual meaning. Thus, for some, work enables them "to do decent, humane and dignified work"; for others, it frames "an experience of oppressive degradation" (Yeoman, 2014, p.1). Here, work is regarded as a way to maintain survival and also as a base for meaning or oppression in people's lives. Hannah Arendt famously illustrates in her work "The Human Condition" from 1958 *work*, *labour*, and *action* as the three primary conditions of life. In her work, Arendt clearly distinguished work and labour as concepts. Arendt states labour as a term for practices necessary to maintain life. She writes:

> *"Labor is the activity, which corresponds to the biological process*
> *of the human body, whose spontaneous growth, metabolism,*
> *and eventual decay are bound to the vital necessities produced*
> *and fed into the life process by labor." (Arendt, 1998 [1958], p. 7)*

The labour activity includes dehumanising processes of automation that lead to humans being bound to these processes for survival and fulfilling biological needs, which leads them to be closest to animals. Arendt contrasts work to that by stating it to be a purposeful effort that does not focus on the creation of the product humans desire, "but the motion of the process itself and the rhythm it imposes upon the laborers" (1998 [1958], p.146). In contrast to Yeoman's understanding, Arendt uses two separate terms to describe what Yeoman unites in one. However, both seem to regard an activity in work/labour as connected to the human condition.

Due to workplace surveillance technology being the centre of this thesis, the concepts of labour and work will be focused on, while it is acknowledged that all human conditions are interconnected in their relation to political life and the human condition (Arendt 1998 [1958], p.7). Action expressly conditions the political life, which means that people shall be in a stage of freedom in their act while sharing rules of a political community, engaging in public discourse and exercising their capacity for agency. Here, action enables people to become humans and actualise their identities in the world (Arendt, 1998 [1958], p.184). Thus, the term refers to the public space and people's ability to act in a way that focuses much more on the political discourse and acts an individual can engage in. What can be taken from action as the third pillar of Arendt's concept of the human condition is that people who are limited in their work and labour or whose work is reduced to an act of pure labour are likely held back from engaging in what Arendt calls action.

Fayard (2021) claims that work and labour tend to be used interchangeably in the literature on workplaces and related public discourse. She suspects that the reason for this use of these terms is the triumph of values of labour over homo-fabian values. To be more precise, Fayard stresses that "all the values associated with work and homo faber – permanence, stability, and durability – are abandoned and replaced by the values of productivity, abundance, and the market." (Fayard, 2021, p.210). Similarly, Arendt (1998 [1958]) argues that ideals associated with homo faber have been displaced by

the ideals of the animal laborans. She further elaborates that "we live in a laborer's society because only laboring with its inherent fertility, is likely to bring about abundance; and we have changed work into laboring […]." (p.126). These claims seem plausible when one looks at the working environment nowadays because the focus on abundance and productive labour imposes itself. In today's corporate world, values such as productivity are highly regarded, and a feedback culture aiming for increased performance and profit has emerged (Swan, 2013; Moore & Piwek, 2017). Here, productivity is understood as a concept that describes a measurement unit for the effectiveness of processes. These processes can, for example, take place in production settings or office environments where the creation or manufacturing of something is the goal. Productivity is directed toward a task or achievement and is contextual, which means that its properties depend on the workplace that is regarded. Baeza and Martínez González (2020) state that productivity is often defined based on the theory of labour values and includes several aspects such as the measurement of changes in labour productivity, the derivation of real wages, exploitation and productivity at work, and the construction of productivity as something that is compared on an international level (p.378). This view on productivity is more holistic than what I focus on.

In this thesis, I will not go into the macroeconomic perspective on productivity and the production value of work activities for the economy and companies. This thesis focuses on the contextual demands of what being productive means and the impact on individual employees at work. I claim that productivity-tracking technologies reinforce the focus on productivity as the primary determinant of 'good' work and influence how employees evaluate their own performance and are evaluated by others. It must be pointed out that the productivity factor is only a small part of what could be considered 'good' working methods or aspects that support efficient production. For example, social affiliation or team spirit could be fostered through helping actions or other social interactions. It could even support productivity as motivation increases, and employees may identify with the work community. These factors may be overlooked as they are not easily measurable or quantifiable compared to factors such as productivity, which could, for instance, be captured by the amount of produced ware in a specific time and tracked by devices.

According to Hegel's "Elements of Philosophy of Right" (1991), work is necessary for people to not only earn their living but be recognised and valued by others (p.271). Fayard (2021) understands that Hegel regards work as something that allows humans to engage in complex relationships and develop habits through practising discipline, eventually transforming them through their work (p.209). This transforming idea of work is especially relevant today since people tend to define themselves through 'what they do' and assign value and characteristics to it, such as 'I am a nurse and hence I am a caring person'. People tend to wish to be recognised by others for what they do and valued for it. Fayard (2021) draws a line between Karl Marx and Hegel regarding the transformational aspect and states that both philosophers regard work as something that simultaneously transforms humans and their

environment but also allows them to distinguish themselves 'from the natural world' (p.209). This way, humans separate themselves from the archaic nature which survival instructs may, for example, be found in what Arendt defines as labour. This underlines that labour does not include work's transforming meaning for the identity of the individual and society. In agreement with some of the perceptions mentioned above of work and labour, in this thesis, work is regarded to have a transformational function in people's lives and that work activities are highly relevant for the individual and their formation of self. Because of the relatedness of work to meaning and self, the term work will be used predominantly in the following instead of labour. Individuals within the workforce tend to be motivated to do so, which is often the identification with what they are doing and how well they are doing it and also recognition by others. In their study, Johnson and Chang (2008) investigate the relationship between self-concept and organisational commitment. They show that employees are sensitive to group-reference information, such as feedback, which promotes commitment to joint enterprises (p.531). The authors attribute this to the significant meaning of employee group memberships and internalised group goals (p.534). I understand humans as beings that embody a need for recognition of their accomplishments and being and a need for social bonding. It appears there is a human desire to maintain social bonds because of 'the productive value of group membership' through taking care of each other, for example, through food sharing and warning others in case of danger (Baumeister & Leary, 1995, p.499). Baumeister and Leary (1995) state that a lack of social attachment negatively impacts a person's health, well-being, and adjustment (p.497). People must work together in order to thrive and survive.

In the work context, this archaic desire to secure survival also developed into financial motivation to engage in occupation and generate a regular income. Nevertheless, financial incentives may not be sufficient in the long run. The meaning of work is more comprehensive than having a solely economic impact on an individual's life, as work's effect on a person's identity indicates. Gheaus and Herzog (2016) capture this in their concept of the 'goods' of work, which go beyond financial aspects. As a starting point, they claim that work is a significant part of peoples' lives but underline the 'goods' and 'bads' of work in their article (Gheaus & Herzog, 2016, p.70). Here, they contend that it would be unjust to let employees mainly experience the 'bads' of work, such as exposing them knowingly or avoidably to health risks, like mental health stress through unreasonably high workload (Gheaus & Herzog, 2016, p.73). The authors suggest a conceptual framework to broaden the scope of justice to the practical questions raised by modern labour markets, such as the danger of possible isolation or the educational options for employees to develop valuable skills (Gheaus & Herzog, 2016, p.71).

The authors define four main 'goods' of work: excellence, social contribution, community, and social recognition (Gheaus & Herzog, 2016, p.72). Excellence in this context means the employees' motivation to attain excellence "as the accomplishment of various things such as knowledge technological achievements or beauty". This can involve skills, sound judgment, or a piece of fine art (Gheaus & Herzog, 2016, p.74). The good of social contribution states that "ideally, markets should

attach a monetary value to the things that are most necessary for the life of a society" (Gheaus & Herzog, 2016, p.76). The third good of work describes peoples' motivation to achieve or do something together, such as a shared project or goal. According to Gheaus and Herzog (2016), the endeavour of creating or achieving something should happen within a relatively equal and free relationship between the involved actors (p.76). This demand could be considered unrealistic because workplaces tend to be shaped by internal hierarchies that hold power dynamics leading to pressure and authority, not necessarily allowing freedom and equality. But only because Gheaus and Herzog's concept might not always hold up does not mean that this ideal should not be aimed at supporting individuals' rights, respect, interest, participation, and growth (Gheaus & Herzog, 2016, p.77). The last good that Gheaus and Herzog (2016) present is the good of social recognition, which is directed at social relations within the workplace and stresses the importance of employees' social recognition of their work within the team and in society (ibid.). Earlier in this chapter, it was already shown that social aspects are impactful in achieving a common goal and the feeling of belonging and togetherness at work. In this thesis, social recognition is understood as being validated and affirmed by peers' perception, leading them to confirm their own behaviour or acting as good or bad, valuable or invaluable for the group.

The ideal 'goods' of work stated by Gheaus and Herzog (2016) are relatively narrow to hold up when applied to practice. People assign weight to these 'goods' and 'bads' may change according to the social and cultural environment, and personal 'goods' of work may not always fit in one of these categories, creating the need to define an additional good of work. For example, a person who works as a sports instructor and engages in the exercises they teach could perceive the movement as health-promoting and, therefore, as a good of their work. Despite that, Gheaus and Herzog's concept provides a rich starting point to evaluate the meaning of work for the individual and their societal role. The more general scope can be perceived as a strength that allows the model to be applied to various workplaces and related social settings, independent from the industry or occupation.

The meaning of work and the 'goods' and 'bads' of work are individual, but work seems to impact peoples' lives and how they live it. Schaff (2001) states that work can be a source of self-assurance, self-confidence, and satisfying rewards that bring meaning and joy to a person's life (p.34). This is relevant because self-realisation in work promotes identity formation over time. People tend to identify themselves with what they do, how well they are doing it, and in the social group their work puts them. In the work context, it has been shown that employees tend to strive for internalised goals in workplaces and feel themselves connected to the social group (Johnson & Chang, 2008). That work can hold meaning to people's identity is further supported by Walker and Caprar (2020). They state that society assigns immense value to productivity and achievements, leading to people striving for goals based on what the authors call performance-based identity (p.1078). The term performance-based identity mirrors the meaning that work and related performance have for a person's identity and self-formation. Performance-based identity is not the only kind of identity involved in the work context or,

generally, if the self-formation of an individual is talked about (Walker & Caprar, 2020, p.1079). The second chapter will take a closer look at these connections between work, identity, and the perception of others. Here, the process of identity formation and the influence that productivity tracking has on people's self-understanding will be addressed. The following section of this chapter provides an overview of the concept of surveillance and its evolution in the age of digitalisation before eventually connecting it to workplaces.

1.2.2 What is 'surveillance'?

In his book "The Ethics of Surveillance: An Introduction", Macnish (2017) suggests that the word surveillance emerges from 'surveiller', a French word that means 'to watch over/monitor someone' (p.9). It further originates from the Latin word 'vigilare', which means 'to watch'. Thus, 'surveillance' "carries with it a sense of watching over someone or something" (ibid.). In the context of workplace surveillance, the more specific definition of surveillance by David Lyon (2002) may be even more accurate since he describes surveillance as a collection of personal data for the purposes of influencing whose data has been gathered and managing these objects of data or 'data subjects' (p.242). Regarding surveillance as a process of data collection and evaluation is fitting to workplace surveillance being a tool for oversight and control of employees. Surveillance in workplaces is often framed as something normal in the sense that a certain level of oversight is necessary for organising processes, for example, documenting working hours and holidays for the payment of salaries and the ability to plan for staff, or promoting safety, for instance with surveillance cameras in entryways. Macnish (2017) claims that surveillance is not internally good or bad but much more depending on the context that it is set in (p.38). For instance, one may argue that workplace surveillance could be positive in the sense that it might lead to increased fairness on the work side through productivity tracking as a controlling mechanism because employees would adapt to the demands of the application's metrics. However, this monitoring could also be regarded as overly controlling or inappropriate, for example, if they track restroom usage. Surveillance has an irreconcilable impact on the environment, and this influence on the context makes it inherently ambiguous and never neutral.

Here, the question needs to be asked when surveillance is justified and who can rightfully carry out surveillance under which circumstances. Gary Marx's (2015) answer to this context-dependency is that surveillance of control and care must be handled distinctively due to the question of consent (p.733). The problem with an assumption as such is that the context also affects how the question of consent must be handled. In contexts formed by power relations and capitalism, such as workplaces, the options and realities in which people make decisions are led by their reliance on their superiors' approval to maintain employment. It can be assumed that employees would consent to surveillance to gain approval, show that they are cooperative, or work well according to the expectations of the employers, having 'nothing to hide' when it comes to their working processes.

In the age of dataveillance[2], the ever-growing accumulation of data is the foundation for what Zuboff (2015) defines as surveillance capitalism (p.75). Surveillance capitalism is a form of information capitalism that aims to modify and predict human behaviour to gain profits and market control eventually. Workplace surveillance technologies are part of this since they are utilised to collect data and predict and direct employee behaviour to benefit the organisation, which entails a punishment and reward system. Zuboff (2015) criticises that this kind of information capitalism reduces humans to merely an animal condition, establishing a "new form of power in which contract and the rule of law are supplanted by the rewards and punishments of a new kind of invisible hand" (p.82). The quantification and surveillance of work are not necessarily novel, and the animal condition argument has been formulated before by Karl Marx (1990 [1867]), who stated that "the unmistakable stamp of belonging to a social formation in which the process of production has mastery over man, instead of the opposite" in the context of the industrial revolution emerging at his time leading to first process automation through machinery (pp.174-175). This critique still stands today, and workplace surveillance technologies are characterised by increased measuring and collection of data for reasons of optimisation. Here, optimisation refers to an aimed descent of productivity by making work processes as effective as possible by reducing effort for a satisfying outcome. Workplace surveillance technologies are implemented to reduce human resources management costs and control work processes digitally (Bronowicka et al., 2020, p.6). Employees are working benchmark-orientated, focusing on data and guided by the expectations mediated through surveillance technologies. With Marx's animal condition argument in mind, workplace surveillance technology seems to be a reinforcement of the mastery over people of the production processes. Further, the actuality of this argument implies that the use of workplace surveillance technologies underpins Arendt's concern that work may be turned into labour, leaving humans in their animal state of survival and abundance. Nevertheless, surveillance technologies need to be regarded in a nuanced and context-dependent way, and there are voices in academic literature arguing for the positive impacts of workplace surveillance in practice, such as increased well-being of employees and motivating effects (Maltseva, 2020, p.496; Swan, 2013, p.94). Since surveillance seems to lead to positive and negative consequences, this thesis aims to provide an overview of the chances and downsides of workplace surveillance technologies in use. The following section outlines the evolution of surveillance technologies in the workplace and the motivations and intentions behind their adoption. In this thesis, productivity tracking will be the leading example to illustrate the impact of quantifying workplace surveillance technologies on employees. Productivity tracking technologies typically monitor employee performance through self-tracking as employees record their work activities.

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[2] Dataveillance is understood as a part of surveillance capitalism, defined by Zuboff (2015), and stands for surveillance practices based on data collection and evaluation.

1.2.3 From Taylorism to Productivity Tracking

Bronowicka and colleagues (2020) state that workplace surveillance and control is by no means a novel topic and arose from the fear of loafing, possible immoral behaviour, and potential time-theft at work and intensified over the centuries (pp.6,8). This fits the idea of Taylorism, which states that workplaces must be quantified and rationalised to aim for increased output. Frederick Winslow Taylor was the father of Taylorism and coined the term 'scientific management' that describes the analysis of workflows with the primary goal of improving labour productivity and economic efficiency (Ajunwa et al., 2017, p.137; Bronowicka et al., 2020, p.6). Similarly, Levy (2015) contends that the aim is to make workers more visible and measurable through surveillance, making them comparable and workflows easier to plan (p.161). Taylor's scientific management stands for standardised procedures and demands workers' participation and obedience. This not only leads to the exploitation of employees but reduces their effort or hides personal abilities in performing that task. The concept of scientific management sums up the intentions of implementing workplace surveillance technology perfectly, aiming for total efficiency, productivity, and rationalisation of work processes. Surveillance technologies are used to optimise work processes to generate an increase in production value and profit ideally. Correspondingly, Moore and Robinson (2016) state that workplace surveillance technologies introduce a heightened 'Taylorism' within today's workplaces (p.2774).

Even before data collection as a form of workplace surveillance was established, punch cards or clocks were used to record attendance. Over the years, the cost of surveillance technologies sank, and more advanced technology was implemented, such as geo-locating systems of video cameras used by companies to monitor their employees (Macnish, 2017, p.175; Ajunwa et al., 2017, p.104). However, this visual surveillance and punch cards only mark the beginning of the evolution. The recently developed surveillance technologies that are advanced through artificial intelligence (AI), datafication, and internet-of-things (IoT)[3], such as wearables or body implants, are capable of using other measurement types of labour that were previously not quantifiable or on a limited scale going beyond time measurement (Mettler & Naous, 2022, p.4). These technologies collect and analyse personal data and quantify employees' behaviour (Ajunwa et al., 2017, p.105; Moore & Robinson, 2016, p.2777). Today, 24-hour and seven days a week surveillance is possible; that was not the case before (Ajunwa et al., 2017, p.108). Employee monitoring can be found online and offline, from overheard phone calls and checking material in the photocopier to tracked social media behaviour, productivity, and health stats (Macnish, 2017, p.176). But where are these new technologies implemented, what is their impact, and how are they perceived?

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[3] IoT is understood as an association of several technologies building a network or infrastructure which in its interconnectedness serves a specific purpose, for example a smart home system.

1.2.4 Quantification of Employees' Work

Employee surveillance was born out of the necessity of the division of labour and oversight. For instance, the company ProjectManager, which markets productivity monitoring applications, states on its website that the permanent overview of tasks and workload within the teams makes organisation earlier and "eliminate resource bottlenecks" (ProjectManger, 2023a). Therefore, it can be assumed that the motivation to monitor workers was economic (Ajunwa et al., 2017, p.136). Monitoring work processes is popular today as around 66 percent of companies in the USA monitor their employees' log keystrokes, emails, and internet use (Ajunwa et al., 2017, p.109). Traditionally, especially low-income sectors integrate workplace surveillance technologies; however, a trend emerged over the past years of surveillance being practised in so-called 'white-collar' or office jobs, even in the higher-paid divisions (Mettler & Naous, 2022, p.6; Aloisi & de Stefano, 2022, p.296). The increased demand for monitoring technology also occurred due to the Covid-19 pandemic, which led to more employees working in home offices and a growing 'platformization' and 'informatization' of work (Aloisi & de Stefano, 2022, pp.289, 299). The organisation, meetings, and general daily work moved into the digital space and, data about workflows was collected, and employees' performance was measured. Ajunwa and colleagues (2017) state that this trend leads to friction that "arises from Big Data's voracious appetite for data that feeds a surveillance and self-monitoring imperative" (p.136). This introduces another less practical consideration of reasoning for monitoring, such as its utilisation of power as employees are under high pressure to track their performance and achievements, making themselves visible through datasets.

As mentioned, recently developed surveillance technologies became more invasive than older technologies like punch cards through their ability to measure and track an employee's productivity and health. These technologies include eye tracking, smart glasses, face recognition software, phone apps, electronic sensors, wearables fitness trackers, and thermal sensors (Ajunwa et al., 2017, p.109; Aloisi & Gramano, 2020, p.105). Also, regular random webcam photos with software evaluating the productivity and presence of the employee and keypad and mouse activity tracking are common (Ajunwa et al., 2017, p.113; Barbaro et al., 2023). Examples of monitoring programs are Hubstaff, which sells software screenshotting employees' computers every five minutes; ActivTrak software, which reports if employees distract themselves on social media; and OccupEye, which records employee's absence from the workstation (Aloisi & de Stefano, 2022, p.298). Besides this tracking technology with which employees are being tracked and monitored, there is also self-tracking technology. Self-tracking, in this case, refers to tracking practices with which a person is tracking their own behaviour and activities for the purpose of raising awareness of behaviour and its consequences (Hassan et al., 2019, p.153). In the work context, if we look at common productivity self-tracking software, the employee gathers information on their performance and working hours, as well as attendance, which are monitored (Aloisi & Gramano, 2020, p.101). Employee productivity data is visualised on a dashboard, informing managers and employers about individual employee and team workflow efficiency (Moore & Piwek,

2017, p.308; Appendix A, B, D). Productive work is framed by the applications within predefined metrics. For example, ActivTrak (2023) identifies productive work by detecting employees' work-related use and 'Non-Business Apps'. Non-business apps are, for instance, social media applications, while communication tools such as mail programs are classified as work-related. ActivTrak measures the time work-related and non-business programs are used, classifying 'Productive Hrs/Day' and 'Non-Business Time' (Appendix C). Here, the data is collected without the partaking of employees through self-tracking. However, it contributes to workplace surveillance and quantification while framing what is understood as productivity in this setting. The information collected on the employee's activity builds the team's benchmark in the tracking program on the given day and for the last weeks, which measures future progress and success (Appendix E).

The company Measuremen (2021) markets productivity-tracking technologies and states that sharing the ranking with the management and employer would provide a needed overview and enable them to make 'informed decisions' on staffing and process organisation. Furthermore, dashboards of productivity tracking software enable not only the self-tracking of the employee but also ranking their performance in categories, labelling them as more or less 'productive' workers. ProjectManager (2023b) applications also use similar categorisations and provide employees with dashboards that enable comparison with others (Appendix A, B). These software provide data on employees' performance and often incorporate a community component that inhabits social facilitation, a reward system entailing suggestions that may lead to nudging[4] dynamics (Moore & Piwek, 2017, p.309). Measuremen (2021) regard productivity-tracking technologies as a chance to improve communication and empowering practices for employees. Productivity-tracking technologies will be the example referred to in this thesis to illustrate the discussion on the effect of workplace surveillance practices on employees. The following section elaborates further on the positive and negative effects of workplace surveillance on individual workers and teams and how surveillance practices seem to be perceived by the affected. To incorporate the experiences and perceptions of individuals, studies on workplace surveillance technologies will be introduced.

1.3 Considering the Effects – Benefits and Downsides of Workplace Surveillance

In 2020, Bronowicka and colleagues published a study in which the authors conducted semi-structured interviews with employees and managers in call centres, trade unions, employer's associations, and public data protection agencies in Germany and Poland (p.5). The call centre industry was chosen because it is known for particularly harsh surveillance measures (Bronowicka et al., 2020, p.13; Ball & Margulis, 2011, p.114). The authors' study aims to survey workers' opinions and knowledge about the supervision and work climate in organisations with management style and practices, including thorough monitoring (Bronowicka et al., 2020, p.14). Two limitations of this study need to be addressed. Firstly, there is no clear documentation on the gender balance among the participants. This would have been

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[4] The concept of nudging will be further elaborated on in Chapter 2.

insightful for this thesis because it could be expected that there is a difference in the perception of women, men, and others to predict due to call centres being strongly hierarchical spaces and the given fact that women, non-binary people, and other marginalised groups are also often treated unjustly in different contexts in life. Moreover, when interviews are cited, the authors did not make it apparent whether the interview partner was from Germany, Poland, or had another ethnical background that could have influenced how they perceived the surveillance in the call centre. Since Germany and Poland have different levels of public awareness of surveillance and related public debate, it would have been interesting to get additional details on this aspect (Bronowicka et al., 2020, p.33). Secondly, semi-structured interviews can only provide limited insight into employees, unions, and managers' perceptions of workplace surveillance in call centres. Future research could enrich the academic discourse by conducting a similar study in other countries and with other cultural backgrounds, where the work culture might differ, to investigate whether staff perceptions may differ. Although it only relates to a specific set of workplace surveillance in Germany and Poland, the study is valuable for this thesis because of its rich content, depicted personal experience of the interviewed, and the incorporation of productivity monitoring technologies as one of the examined workplace surveillance methods.

1.3.1 Benefits of Workplace Surveillance

When workplace surveillance is discussed in the literature, some benefits are acknowledged. Hassan and colleagues (2019) contend, for instance, that one of these benefits is a better overview of work processes compared to the oversight that in-person supervision provides. This is supposed to lead to more reliable feedback systems and efficiency increases (Hassan et al., 2019, p.151). Further, Swan (2013) states that quantifying technologies enables a cycle of experimentation, interpretation, and improvement that leads to a loop of behaviour change (p.93). Although Swan (2013) refers to self-experiments with self-tracking devices, this method or frame can easily be translated into the productivity-tracking context since the feedback loop and adjusted employee behaviour based on the comparison, praise, and criticism appear as a similar avenue (Hassan et al., 2019, p.152). The visualisation of employees' productivity is meant to motivate them and give the employers a point of reference for assessing the individual employees' performance. Calvard (2019) mentions that it has also been argued that the design encourages employees and promotes competition with colleagues (p.10). From this emerges a social comparison, which can be divided into upward or downward comparisons. Because of feedback loop applications, employees are constantly reminded of how they and others are ranked, can improve, and are categorised in relation to fellow employees. Upward comparison means that a person compares themselves with one who is 'better' at something than them. In contrast, downward comparison implies that one regards, for instance, the productivity of another as 'less' than what they accomplished. In the case of upward comparison mediated by productivity-tracking applications, the upward-looking person may understand the achievement of others as the goal and their way of working as a roadmap to success. The downward comparison could lead to people being

validated through their ranking compared to others, which leads to reassurance of how they work. Also, some believe that monitoring technologies are implemented to elevate employees' capabilities and competencies based on the information the individual receives, for instance, on their behaviour (Maltseva, 2020, p.497; Swan, 2013, p.85). Talaifar and Swann (2018) state that social comparison processes are a source of self-knowledge and happens effortlessly as a part of the self-concept formation (p.13). The meaning of social dynamics and comparison for the formation of self-concepts will be elaborated on at a later point in this thesis.

When looking at these arguments in favour of productivity-tracking and monitoring technologies in the workplace, the technology seems to be a promising addition to employees' work. However, these aspects are rather one-dimensional and may state the feeling of some towards this workplace surveillance, who could regard it as a change and enhancement of their performance and work experience. Focusing on the benefits of monitoring technologies in workplace surveillance alone is insufficient and ignores the profit-driven intentions of these implementations. Behaviour change through feedback loops and self-experiment activities are not solely altruistic endeavours by companies but, as argued before, aim mainly for the increased profit and performance of the organisation, whether that is the increase of an employee's well-being. I argue that productivity-tracking software that entails standards and metrics that need to be met, such as a sale count, the number of hours without breaks, and competition between co-workers, harms the individual employee. There are negative effects that can be potentially dangerous, including those that lead to authoritative attitudes such as manipulation or nudging for the company's cause if the human comes second.

1.3.2 Downside of Workplace Surveillance

As discussed, workplace surveillance technologies may appear freeing and enhancing to some, but there are several issues with workplace surveillance technologies in practice. This thesis argues that these technologies affect employees and the dynamics in their social environment in a disrupting way. Disrupting in the sense that it has far-reaching and transformative effects on employees. Productivity-tracking technology reinforces the 'bads' of work and decreases the possibility for employees to experience the 'goods' of work. The following section looks at the consequences of productivity tracking for the employees and the team dynamic at workplaces.

Monitoring employees is not simply a top-down, purely objective, and technical endeavour but is much more complex (Bronowicka et al., 2020, p.10). Nevertheless, it has been pointed out that productivity-tracking technology is in use to improve the objectivity, transparency, and verifiability of managerial decisions (Aloisi & de Stefano, 2022, p.300). Here, it is relevant to acknowledge that technologically supported decisions and technologies are not bias-free. Software incorporating data-driven systems and automated decision-making affecting workers is generally called algorithmic management (Lamers et al., 2022, p.1). These technologies, but also tracking technologies without AI applications, are often part of middle and lower management, limiting human interaction to eventually

improve the efficiency of decision-making processes in human resources (Lamers et al., 2022, p.1, Aloisi & Gramano, 2020, p.102). Just like when productivity-tracking technologies are used, the collected data guides the human resources department's hiring, firing, and career planning and offer apparently 'evidence-based' or 'data-driven' management decisions (Ajunwa et al., 2017, p.137; Aloisi & Gramano, 2020, p.105; Measuremen, 2021). The results or rankings in productivity tracking seem to directly impact the decision-making in organisations, which strengthens the dependence of employees and employers on the feedback given and mediated by the tracking technology. This dependency translates into social dynamics influenced by comparison, control, and technologically mediated judgment through the tracking device. The technology's output frames the person's worth for the organisation since the more productive someone is, the more valuable they are for the company if the focus lies on profit and efficient work processes. Indeed, the worth of an employee for the company could also be measured differently, for example, by their social engagement in the team and the support they are for their team.

The ranks and performance metrics cannot only be regarded by the employers and managers who base decisions on the output, but the categorisation is also visible to co-workers (Appendix D, B). With the social comparison dynamic elaborated earlier in mind, it is expected that this will lead to constant comparison, and workers are likely to monitor themselves and change their behaviour to meet the requirements and be well-regarded in the social community. As discussed, an occupation holds social recognition as good of work, which is arguably relevant for humans as social beings. According to Renger and colleagues (2017), people need social recognition from others to build the base for self-determination (p. 479). Referring to the social comparison mentioned earlier, the social component can positively and negatively impact individuals. In any case, employees have an existential and emotional connection with their social surroundings, emphasising the social pressure they are experiencing to perform well and adapt. Moore and Robinson (2016) take it a step further and argue that the surveillance mechanism's impact eventually led to the self-exploitation of employees (p.2781). This self-exploitation would arise from the need to adapt to the pressure built by the technology and social environment. In other words: "Self-mastery in a manner that benefits the company" takes place and is based on feedback loops and social pressure (Ajunwa et al., 2017, p.137).

One could argue that employees could choose not to compare themselves with the information of others' work progress and achievements and let the social pressure affect them, which would lower the pressure they may experience. However, even if employees are not actively comparing themselves with others, they will likely feel the imperative to meet the benchmarks and work for at least a certain number of hours with the programs classified as work-related to be categorised as 'top user'. The motivation for this could be keeping the job or aiming for excellence, a promotion or a raise. Moreover, employees could resist the monitoring practice by quitting their jobs, and studies have shown that workers in monitored workplaces are more likely to intend to search for a new occupation (American

Psychological Association, 2023). However, this depends on the individual circumstances of the employee and their background and is not a simple way out. For example, a person who is highly educated or relatively young may have fewer obstacles when looking for a new job than a person with a lower level of education and a higher age due to the more limited demand for them on the job market. Furthermore, one might need to keep the job at the monitored workplace because of personal attachment to the work or colleagues. Quitting the job is instead the last resort. Nevertheless, it needs to be acknowledged that employees may engage in other kinds of resistance against productivity tracking. Resistances against workplace surveillance often occur in less obvious ways, like absenteeism or attempting to 'game the system' (Bronowicka et al., 2020, p.36). For example, they could note false times or stage activity on 'business-related' websites and apps to still meet the requirements of the monitoring application without actually engaging in productive work. This would not meet the purpose of the tracking, but they also may not fear direct consequences. Bronowicka and colleagues (2020) showed in their study that managers also tend to overlook manipulative actions toward monitoring technology in call centres, such as 'gaming with the metrics' by picking up and hanging up the phones to stage the activity as long as the numbers are good (p.19). Here, it has been stated that the managers would not question the manipulation of the numbers because of the stress they experience by being judged based on the overall statistics of their teams (ibid.). However, even if the managers might not call out the employees, the pure necessity to stage this 'productive' behaviour can already be stressful due to the feeling of being watched (Bronowicka et al., 2020, p.18). Employees are not entirely passive in workplace surveillance but are limited in their options. Active resistance, like speaking up against the surveillance practice, leads to employees being dismissed, which is a risk that can be existential (Bronowicka, 2020, p.20). Martin and colleagues (2009) stress the need for multilevel resistance, which they describe as an expanded way of resistance that includes the surveyed and the surveyor and external factors such as media, public discourse, or civil society (p.229). This additional factor could build a promising base for employees' resistance because it would open up the space of resistance and cause the public discussion of working conditions and regulations on monitoring technologies. This could enable more resistance by employees through the pressure that companies experience due to increased public interest. In this case, it may be unattractive for the company to dismiss employees who object to the monitoring practice, fearing public scandals and lawsuits.

The constant monitoring of an employee's performance and exposure to praise and criticism leading to rewards and punishment can encourage but also shame the individual (Ajunwa et al., 2017, p.136). Regardless of the punishment or reward in the form of the decisions being made based on the monitoring output being justified, the comparison may lead to high pressure to meet the metrics the employer renders as 'productive' if the focus lies on productivity tracking devices. It has been argued that monitoring benefits the employees' health, self-development, and productivity (Macnish, 2017, p.178). However, I claim that monitoring can also be counterproductive and negatively impact

employees' productivity, commitment, attendance and health. A high stress level emerges for employees from the demand for productivity-tracking technology and makes them feel inadequate, which could result in an unhealthy degree of competition within the team (Macnish, 2017, p.178; Moore & Robinson, 2016, p.2775; Bronowicka et al., 2020, p.9). The pressure on employees is perceived as higher in workplaces with monitoring technologies intact. The American Psychological Association (2023) shows in a study that monitored employees tend to feel more stressed than workers who are not monitored at work. The study participants express, for instance, irritability or anger toward coworkers and customers while feeling emotionally exhausted and ineffective at work.

By managers, employers, and some employees who took part in the call centre study in Germany and Poland, the control mechanism of workplace surveillance technology is regarded as necessary and perceived to enable work and make it easier, providing a sense of equality and a sense of commitment that would not be there without monitoring (Bronowicka et al., 2020, p.23). Overall, the response towards the surveillance seems to be mixed. For instance, the interviews in the call centre study showed that individuals have different kinds of feelings towards workplace surveillance; some say it is great because it holds others accountable to work, some say they are used to it, and others report feeling trapped (Bronowicka et al., 2020, p.23). Macnish (2017) states in his book that some people welcome workplace surveillance because it is claimed to be a good way to prevent or mitigate inappropriate behaviour, favouritism, and bullying at work (p.180). Contrary to that, Bronowicka and colleagues (2020) show in their study that workplace surveillance technologies can also cause an atmosphere of hostility and mistrust at workplaces (p.9). Others claim that it deeply alters the relationships between employees and employers, and it has been argued that there is a distance created through the tracking technology, and the constant surveillance mitigates trust in these relationships (Aloisi & Gramano, 2020, p.102; Ajunwa et al., 2017, p.112). These claims are appropriate because monitoring technology becomes a mediator in this relationship, and managers and employers may need more contact with their employees while relying on the feedback and outputs of the tracking software since the centralised dataset saves time. Another aspect regarding this is the mentioned mistrust that emerges from potentially unrealistic productivity metrics or data-based judgment in which employees could feel misrepresented while not fully understanding certain decisions are made. The metrics could be seen as unrealistic by the employees because the productivity-tracking technology is only able to capture productive work by monitoring the activity on the computer and tracking 'productive hours'. Also, the social workplace environment change could lead to increased antipathy and aggression towards the employer and colleagues (Macnish, 2017, p.180). This leads to frustration and, potentially, a decline in attendance and productivity. Aside from the hostile environment, the employees may not feel well mentally either. There have been reports of physical and mental stress symptoms, leading to anxiety, burnout, and employee overall health suffering. For example, an employee might feel hopeless when realising that they cannot hold up to the expectation rendered by the organisation and colleagues, which could lead to

anxiety regarding their future in the organisation. In a study concerning the well-being of employees, 45% of the participants who are monitored at work reported noticing a negative impact on their mental health or experiencing burnout (American Psychological Association, 2023). Thus, workplace surveillance technology can potentially provoke 'bads' of work for employees, such as mental health issues, as Gheaus and Herzog (2016) defined it, rather than to enable their well-being and self-fulfilment at work (p.73). Additionally, there have been cases of employees harming themselves if they attempt to grind away to reach the expected performance level that the employer or co-workers wish to see. One example of this phenomenon is Amazon workers whose performance, productivity, and attendance are surveyed, leading to such a high level of demands and pressure that they take more risks and push themselves physically, often leading to injuries, endangering themselves and others (Ajunwa et al., 2017, p.110).

When elaborating on workplace surveillance technology's impact on the social dynamics at work, it has been shown that workplace surveillance leads to employees being treated like untrustworthy children. Macnish (2017) calls this the infantilising effect (p.35). In the study by Bronowicka and colleagues (2020), one interview participant expressed anger about the infantilising effect. They regard the monitorisation as unreasonable because the employees are adults and reported feeling patronised to an unsettling degree (p.19). Another participant shares this experience and makes the mentioned dehumanising and employees becoming resources: "I'm not a person when I'm at work. I'm just like another machine that works there, I didn't write anything personally, I just wrote the shit they told us to write over and over again." (Bronowicka et al., 2020, p.18). Correlatively, Maltseva (2020) states that employees become a homogenous resource themselves (p.499). Moreover, many scholars also point out alarming concerns about workers being instrumentalised or dehumanised and problems concerning employees' dignity (Lamers et al., 2022, pp.1-2; Moore & Piwek, 2017, p.312; Bronwicka et al., 2020, p.9). Accordingly, Macnish states that workplace surveillance technologies can add to already existing power imbalances (2017, p.37). To sum up the effect of surveillance on the workplace setting, Aloisi and Gramano (2020) write that "instead of facilitating an emancipating new environment, the risk is that intrusive technology could be used to deepen hierarchy and control over work performance, team dynamics, usage habits, social media behaviour, and even sensitive characteristics" (pp.102-103). This quote captures the main impacts that workplace surveillance has on individual employees and teams. The heightened pressure and control mechanisms and the alteration of relationships and behaviour reinforce the 'bads' of work instead of supporting the 'good' of work.

I argue that the effect that productivity tracking has on the social dynamics in the workplace and the meanings that the provided data on performance and achievement holds eventually shape employees' identities. Correspondingly, Calvard (2019) calls quantifying the employees' behaviour a way of embodied sensemaking (pp.1,3). The employees form their self-understanding significantly through their 'quantified self' that is promoted by the work environment and tracking technology. Calvard (2019)

defines the quantified self as a term for the intimate relationship between the gathered data and the self-concept that also shapes the sense of self that an individual has in relation to others (p.2). Moreover, quantified (employee) selves reproduce "tensions around power, autonomy and control in the employment relationship", which enabled positive but also negative effects of the data collection practice (Calvard, 2019, p.1). In other words, quantification technology is perceived to increase the power and control of employers over employees because of permanent and detailed measuring that demands employees to strive to reach a certain level of productivity or other metrics. This way, employees are made to act within the predefined frame set by the tracking technology and may not be able to achieve their 'goods' of work, while they tend to forfeit their autonomy to fit the system. This effect on the individual employees is possible due to the connectedness of their identity to their social environment and the technologies used within it. This relation and the concept of autonomy will be explained further in Chapter 2, together with its meaning for the employees' self-actualisation and self-recognition.

1.4 Conclusion

With the increased use of surveillance technology to measure, classify and control employees' work through digital platforms and tracking devices, the rationalisation of work has reached a new level, and there is a need for discussions on the implementation, regulation, and possible justification of these technologies. In this chapter, positive and negative aspects of workplace surveillance are pointed out, from enhancement opportunities and seemingly increased objectivity, efficiency and motivation on one side to drawbacks for individuals and the social dynamic at work on the other side. These adverse effects describe the higher pressure on the employee caused by the standards of the metrics of the productivity-tracking technology. Other impacts discussed relate to the social environment through growing distrust, infantilising effect, and employees' disaffection from work and company. This chapter has shown that work is transformative in the sense that it provides meaning and is a source of self-formation. Employees and their work are connected with each other in a way that is deeply relevant to self-formation because work is a way to actualise oneself. Through the growing focus on productivity as the baseline and the development to treat employees as a means to an end for profit, what we call work turns solely into labour if we follow Arendt's understanding of it. Employees feel the imperative of the productivity-tracking technology being encouraged to perform at work in a way that would benefit the company, regardless of what this would mean to their ability to act, their health, and their safety. Overall, the chapter has shown that in workplace surveillance contexts, the individual's values and morals are being weighed against the interests and expectations of the company, which not only leads to a strong bias and potentially favours the company's interest, but also enables dependency and growing distrust towards the company through data collection (Mettler & Naous, 2022, p.8). The growing focus on productivity as the baseline of work by specifically monitoring it will strengthen the 'bads' of work, such as higher pressure and loss of capabilities, leading to a decline of autonomy. Productivity tracking and the social

comparison dynamic that is strengthened by using the technology create an unethical dependency on the employees. One reason for that is the information about their performance being shared through output. The next chapter will address the relationship between identity and information and the meaning of work for employees' identities. In this context, theories on self-concepts and the relevance of others' perceptions in identity formation will be illustrated. The focus here will be the intimate relation that the data as information and productivity tracking as a practice have on employees' autonomy.

Chapter 2: Data and Identity

2.1 Introduction

This chapter focuses on answering the question of how identity relates to work and is affected by productivity-tracking technologies and information gathering, as well as the results of the tracking practice. The claim that this section aims to support is that the identity of employees is impacted by the data that is received, the method of tracking themselves and being tracked by third parties. Further, I am looking at identity as a concept by breaking it down into core concepts, such as self-conception and self-perception, and investigating self-recognition's relevance in identity formation processes. Here, the social context in which individuals find themselves and the information they give and receive about their environment is essential. The workplace surveillance technology, social dynamics at work, and the information that employees receive through monitoring in the form of feedback and ranking significantly impact the process of self-realisation related to working. This chapter shows that information that is provided to employees shapes the understanding of what productivity and 'good' work are, and that affects the norms on which individuals behave and interact with each other. To illustrate this, I will use Henschke's elements of identity and the concept of the Identity/Information Dyad (2017) and apply them to the workplace surveillance context. Productivity tracking at work will be one form of regulation and influence that impacts individuals. This behavioural change is guided by productivity tracking, which I expect will be examined closely using Sunstein's theory (2015) on nudging. The impact that productivity monitoring technology has on the identity of the employee goes so far as to limit their autonomy and agency. I use Prunkl's concepts (2022) of autonomy, agency, and authenticity to build an understanding of the terminology. Oshana (2013) states that the agency and self-concept of a person are closely related and will be referenced to support this claim. Additionally, to support this, Walker's and Caprar's (2020) concept of performance-based identity and the meaning of self-knowledge for identity formation will be discussed, as well as the impact of misrecognition on the autonomy of a person through technology that is shown by Waelen (2022).

2.2 Identity and its Construction

Before elaborating on the effect that productivity-tracking technologies have on identity, it is valuable to first look at the concept of identity, how it is formed, and what it consists of. I claim that the concept of identity depends on how a person is perceived by themselves and others in their social context.

Identity is built over time based on self-conception, which is dynamic and ever-evolving. Furthermore, Talaifar and Swann (2018) state that the self implies consistency in the sense that there is some connection between the person that someone was yesterday and who they are in the present (p.1). The self-concept describes a collection of values and understanding that a person develops about themselves and their place in the world. What I refer to as self-concept, Talaifar and Swann (2018) describe as self-representation and state that these representations are multifaceted and guide a person's behaviour (p.2). They regard self-representation as something which impacts not only a person's psychological functioning but also how they present and orient themselves externally and in social space (ibid.). The self-representation or self-concept one embodies over time forms one's identity. Deikmann (1996) understands identity as the sense of the person's existence that involves their self-image, social categories, fear, passion, and body, which differ between individuals (pp. 350, 351). Hence, if a person, for example, regards themselves as disciplined, they will behave accordingly because they connect this attribute to their self-concept or self-representation. The concept of self, on this account, defines people's very existence and actions in the world. Additionally, self-concepts are impacted by a person's environment and the social context in which they find themselves (Talaifar & Swann, 2018, p.12).). They cannot be regarded as isolated from the outside and other's perspectives (ibid.). The self-concept forms through the impact of a person's self-perception, self-recognition, and the perception and judgment of others. Self-recognition means that people recognise themselves as they perceive their being in the understanding that others have of them. The self-concept is subject to constant adjustment in the social context, for example, about whether others perceive one as one sees oneself or recognises oneself in the judgment of others.

The term self-conception is understood here as part of a person's sense of self impacted by their beliefs, moral character, commitments, life plans, social roles, and values "that undergird the person's unified practical agency" (Oshana, 2013, p.233). Thus, the absence of self-conception would mean a basis for a person's agency was missing and, therefore, their ability to affect the world by making choices and taking action (Oshana, 2013, p.231). In this thesis, I am using Prunkl's (2022) definition of agency as a person's ability to act according to their values and beliefs, implying that they need meaningful options available (p.3). A person's self-conception provides them with an orientation on which bases they make decisions and build beliefs. However, the understanding of values, social roles, or beliefs may change for different reasons, such as new life circumstances or integration into another social circle representing different kinds of values. The self-conception a person has is dynamic despite the consistency it provides by connecting the present and past self. A person's identity is connected to their self-concept. However, it is particularly the manifestation of having a history as a self-actualising individual who orients itself to values and elements of the self-concept. Oshana (2013) writes that the main task of identity is the ongoing discovery of qualities that constitute agential selfhood while contributing to the individual's self-understanding (p.234). Similarly, Henschke (2017) regards identity

as "a cognitive process in which a relation of equivalence is a set of thoughts about thoughts and identity is not a single thing and dynamic, constantly evolving" and therefore also acknowledges identity as dynamic and depending on self-conception (p.101). From these accounts, it seems that identity derives from self-perception and understanding over time and subsequently frames the self-conception. The idea of self-concept, how we evaluate ourselves, is therefore in need of self-awareness.

Henschke (2017) presents identity as a multifaceted concept that incorporates three elements: Self-Regarding Identity, Other-Regarding Identity, and Other/Other Regarding Identity (p.106). Henschke's concept illustrates that the answer to identity is not simply "I am who I am". His three elements show that identity is formed under the impact of the social environment and corresponding values and norms. This makes identity a dynamic and ever-adapting thing. Henschke states that identity is instead built and informed through the interplay of the identities it is constructed by (Henschke, 2017, p.101). In agreement with how I describe self-perception, Henschke's first identity element is the Self-Regarding Identity, which refers to a person consciously or unconsciously referring to something they identify with (2017, p.107). This could, for instance, be the self-identification of a person as a nurse and as an employee with a specific task in their department. Self-Regarding Identity describes who I am (Henschke, 2017, p.112). Productivity monitoring seems to be a form of self-perception mediation for the employees. It provides metrics and categories by which employees judge and perceive themselves. So, the framing of the technology and the controlling practices affect the self-concept and perception of the employees and play with the necessity of self-perception of individuals when constantly forming their identity. For example, if employees meet the defined requirements of the application for being productive, they may be ranked highly and perceive themselves as successful and hard-working.

How self-perception is mediated can be instrumentalised to create an implied imperative to work in a certain way for the employees to perceive themselves as a 'well-working' person and confirm their Self-Regarded Identity. It could be pointed out that this sorting would also happen in workplaces without surveillance. However, the classification is much more static and limited in what 'good work' is measured with because the datafication and integrated metrics lead to an oversimplification (Gal et al., 2020, p.6). For instance, it has been pointed out in the previous Chapter that the productivity-tracking application marketed by ActivTrak (2023) measures the performance of employees based on the time they use 'work-related' programs and declares these periods as productive hours. Even if an employee worked productively for the company, such as helping colleagues or reading into a work-related topic away from the workstation, the tracking program would not appreciate these activities as productive work. The employee needs to engage in specific behaviour to fit the categories, and the system would punish individuality in working by downranking the employee. Additionally, the number of tasks done in a certain period does not prove that the task has been sufficiently fulfilled. A person who works longer on a task without the pressure to meet a specific timeframe may operate so that the outcome does not need to be revised, which could lead to time-saving. The limitations of the technological framing will

not always meet the reality of the employee's day-to-day tasks, and they may feel wrongly judged or adapt their self-perception to the monitoring outcome. Because of the community application of the technology and possible comparison, there is a social component which likely impacts the self-conception and identity formation (Appendix B, D). As elaborated earlier, the social context in which individuals find themselves will impact their self-perception and identity because self-conception is formed through external influences. This includes the social aspect of productivity tracking applications that foster employees' comparison with each other and create norms or values in the workplace that people will try to meet to be recognised as the person they perceive themselves as. Moreover, the frame that the technology sets can lead to an identity disruption due to the perception of others of the employee. For instance, an employee who is classified as a 'well working' or as 'highly valuable' for the company by the ranking done by the technology and the feedback they get from others will likely integrate these external perceptions into their self-concept and long-term into their identity.

This mirrors Henschke's idea of the other relatedness of identity and its contextual dependency. He presents two elements of identity in addition to the Self-Regarding Identity, which is socially contextual: The Other-Regarding Identity and the Other/Other-Regarding Identity. All three elements are in a causal relationship with each other. The Other-Regarding Identity describes how a person's identity is formed by the perception of others (Henschke, 2017, p.116). This indicates that people want to be accepted and well-perceived by others in the social group to be connected to them. In the workplace context, employees' identity is not only constructed by how they perceive themselves and their performance, for example, being a 'productive' or 'valued' worker, but also through the perception of others. These others could be co-workers, customers, or employers. As social beings, humans long for recognition and adapt not to be outcasted, meeting the expectations to be accepted. Because of this social component, one will likely take over the others' perception as a part of their identity. Similarly, Talaifar and Swann (2018) acknowledge that the perception of others impacts a person's self (p.13). The authors show that a person's self is created socially due to comparison and internalised views of themselves (ibid.).

When applied to the workplace surveillance context, productivity tracking applications also show another dimension of this other dependency on identity. In the dashboards, the employees not only see their own ranking but can also view the ones from their colleagues, and the comparison and judgment of each other's performance lead to the employees not only regarding the performance of others (Appendix D). They are aware of the expectations in the environment that the people ought to follow and evaluate themselves and others accordingly. Here, the element of the Other/Other-Regarding Identity becomes relevant. Henschke (2017) describes this element of identity as the identity which refers to the expectation that a person has of the potential judgement that others could have about them (p.120). This implies that the perception that others have of you as a person impacts how you perceive yourself. It plays with expectations on the I but also raises expectations towards the other as they are

individuals forming their identity in this context. Oshana (2013) states that if the self is regarded from a realist perspective, it is an 'acting, perceiving, and self-perceiving agent' that embodies social environments (p.233). Further, Oshana (2013) contends that the self-concept a person draws from is shaped by the way others categorise them but also shapes the categories that people are assigned to (p.231). Similarly, Henschke (2017) states that the Other/Other-Regarding Identity is an intersubjective component modelled by social interaction (p.117). In other words, these relations show that the personal and social understanding of a person's behaviour within an exchange impacts what others think of them and how the observed individual perceives themselves, including the person's expectation of external perceptions. This perception is affected by the predominant values and beliefs of the social group that the individual finds themselves in. In the process of quantification and evaluation, employees are not solely 'quantifiers' but are also quantifying themselves and others (Calvard, 2019, p.4). Oshana (2013) states that a person's self-construction process is affected by their self-evaluation, which is built on the characteristics that a person includes in their self (p.234). At the workplace, this ongoing evaluation impacts the employees' self-perception and has an identity-forming effect. Understanding this self-evaluation process in the context of their environment is essential.

The urge of a human as a social being to belong to a group would alter their self-perception and is as important as the opinions formed by others. In contexts of workplace surveillance in which the employees are monitored to perform and be judged based on pre-defined metrics by technology and fellow staff, employees' identity is affected by the perception of others and their self-evaluation based on their performance. This can lead to conflicts since the self-conception and the information given may not align. Talaifar and Swann (2018) point out that people have a need for psychological coherence and, therefore, a need for consistency within their perception of themselves (p.16). If their self-concept does not align with what represents self-knowledge, individuals may not know how to act or regard their position in this context (ibid.). The lack of coherence between the information employees receive and their self-concept potentially leads to internal conflict and uncertainty about the truthfulness of their self-concept. Employees with lower self-esteem than others are more likely to question whether or not they are productive or valuable at work, especially when they face increasing pressure to meet the expectations of the tracker and, thus, the organisation. When the employee questions their self-image and beliefs, this might disrupt the person's self-conception (Oshana, 2013, p.242). Oshana (2013) state that this is morally problematic because it can reinforce specific self-concepts (p.250). I agree with Oshana because employees' identities and self-concepts are altered or reinforced to benefit the organisation and its productivity instead of supporting their goods of work and autonomy. It may negatively affect the employees' health, as mentioned in the first chapter, and creates a dependency on the feedback in a way that may even make employees act against their interests. I contend that it is highly relevant to include identity as a concept in the discussion of workplace surveillance to protect employees and maintain the goods of work by emphasising the complexity and social embeddedness of

identity formation. The framing that surveillance technology sets with its output and categorisation directly impacts the people within the setting. Moreover, it has been stated that the mediated perception and the intersocial perception in the social environment of the workplace form identity. Furthermore, workplace surveillance technologies hold information that forms the understanding that individuals have of themselves and the world around them. The next section will explore the meaning of information and its relation to identity.

2.2.1 Information and Identity

As elaborated in the previous section of this chapter, metrics such as the rankings, categories, and information on a person's productivity shape how people perceive themselves and are perceived by others. How an employee situates and perceives themselves in the social context is impacted by the frame given by the technology, which holds values and norms embedded in the provided information. For example, whether one perceives oneself as a valuable and productive employee or a failure and unproductive depends on the feedback they receive through productivity-tracking technology. Information and its meaning have a significant role in forming identity and vice versa. This goes both ways because not only are people's identities affected by received information and its effect on the self-concept, but also the meaning of information shifts because the individual's understanding also influences it. Henschke (2017) introduces the Identity/Information Dyad, which states that information forms identity and identity forms information (p.153). He understands this as a mutual causal relation between information and identity that affects reciprocal construction and development (Henschke, 2017, p.170). When looking at productivity-tracking technologies, the metrics that define productivity may not only vary from profession to profession but also change or evolve by users generating data and acting upon the expectations carried by the information about their productivity and ranking given to them. Additionally, the Other/Other-Regarding Identity builds and informs the meaning and judgment of experience in the sense that social valuing and availability of shared meaning have an impact (Henschke, 2017, p.169). In other words, the categories, metrics and expectations in the social setting of the workplace form how employees regard themselves and others. However, also the meaning of the information in the form of the categorisation and the technological output gets its meaning assigned by the actors and related context. Calvard (2019) states that the collection and evaluation of data on performance and achievements shape employees' identities by expanding and extending self-concepts (p.6). He calls quantifying activities 'embodied sensemaking' (Calvard, 2019, p.5). Thus, the self-construction of people's identity and the dynamics within the social environment are influenced by the information but also shaped by the information. For example, employees will act on the expectations set by the performance rating they have been given and will perceive themselves and compare their performance with others on this basis. In addition, the performance information takes on meaning through employees identifying with it, recognising it as an impactful depiction of work. That employees form the information they are affected by could be used to argue for employees being able to determine

how much weight they want to attribute to the tracking results. Employees could decide to assign less significance to productivity tracking. However, because of the pressure at the workplace, it seems unlikely that they can entirely remove the relevance of the categories for them and their work reality while being judged based on it.

2.3 Productivity Tracking and Employees' Identity

The Identity/Information Dyad depicts the connection between identity and information, which has consequential meaning for employees within the quantified workplace. Appropriately to his theory, Henschke (2017) insists that it is essential to include informational harms to individuals and the moral weight of information when surveillance technologies are discussed (pp.254, 261). Suppose identity formation and a person's self-conceptualisation are impacted by the information provided by surveillance technology, such as productivity-tracking technologies. In that case, the effects this may have on the individual's agency and autonomy must be considered. Before taking a closer look at the impact on the autonomy and agency of the individual, this section addresses how the information that employees receive on their productivity is connected to their identity if workplace surveillance is practised. For this, concepts such as performance-based identity and misrecognition through technologies will be analysed regarding their effect on self-development and identity formation.

2.3.1 Performance-based Identity

In their paper from 2020, Walker and Caprar introduce the notion of performance-based identity as an extension of theories of existence and self-efficiency by underlining the meaning of performance for individuals' self-definition and identity formation (p.1084). Performance-based identities provide a base for new insights into people's lives and work experiences. They claim that people tend to obtain their identity from work-related sources: professions, organisations, workgroups, and colleagues. Here, the focus is not only on what people work but where, with whom, and "how well they generally perform at work" (Walker & Caprar, 2020, p.1079). According to Walker and Caprar (2020), the construction process of identity starts with internalising performance standards adopted by individuals as personally meaningful self-knowledge (p.1091). Performance-based identity is also understood as a partly social process and not only a product of an individual's thoughts, behaviour, or feelings (Walker & Caprar, 2020, pp.1092,1095). Like Henschke's elements of identity, this theory stresses the importance of information and its impact on individuals in the workplace. Also, it incorporates social aspects, such as interpersonal relationships at work. The concept of performance-based identity is how the understanding of productivity and the information that employees get on their performance significantly influences their identities. However, it could be criticised about Walker and Caprar's theory that the social component could be assigned more weight. Earlier in this Chapter, it has been demonstrated that an employee's identity is formed by information that one receives on their productivity and additionally strongly by the perception of others. The social component of work has high relevance for the work and

its meaning for employees (Gheaus & Herzog, 2016, p.77). One aspect that makes the concept of performance-based identity relevant is its indicated function to provide guidance to employees. Specifically, the information employees are given provides an orientation to them and their self-perception. This approach to identity and information has similar aspects to Henschke's, but rather than focusing on surveillance as he does in his book, they focus specifically on the work context, making it a helpful identity theory to further investigate identity in the context of workplace surveillance.

While Henschke (2017) focuses on the perception of oneself, others, and information, focus Walker and Caprar (2020) on 'self-knowledge'. This 'self-knowledge' refers to the understanding that a person has of their abilities and capabilities, and it is formed by information given to the employees. The authors argue that performance-based identity is also strongly related to the self-efficiency of the individuals, which refers, for example, to the employee's perception of their abilities (Walker & Caprar, 2020, p.1083). In case the assessment of the technology and the self-perception align or do not align with the employees' self-esteem, they can be affected in a supporting or disrupting way. Self-esteem is understood here as individuals' subjective evaluation of their own worth. However, it seems important to Walker and Caprar (2020) to state that performance-based identity is not the same as self-esteem but is based on self-knowledge about a person's performance in achievement settings (p.1080). This achievement setting could be the work environment in which someone finds themselves. The self-knowledge that a person generates in this achievement setting is the cognitive foundation for performance-based identity, and it is developed through results, feedback, or 'internalized performance standards' (Walker & Caprar, 2020, p.1088). In other words, performance-based identity is built by the self-knowledge of an individual who receives and evaluates information on their work in relation to the norms and standards of the environment as well as social comparison. Here, socially driven feedback seems relevant, as criticism and praise within a social group will not only judge a person's performance level but also create or hinder a sense of belonging with the group in the achievement setting. The demand to fit into a technologically framed understanding of productivity in combination with employees' identity being connected to information and performance data could also influence how employees react to negative feedback (Walker & Caprar, 2020, p.1093). The authors state that this motivation can lead to heightened motivation and effort, which results in confidence, increased well-being, and health. However, this dynamic can also lead to psychological distress when facing feedback, such as anxiety, self-doubt, or depression (Walker & Caprar, 2020, p.1094). The American Psychological Association (2023) published a study and confirmed this, reporting increased stress and decreased mental health among workers monitored and assessed using surveillance technology in the workplace.

Walker and Caprar (2020) claim that performance self-knowledge is about the place and purpose of a person in life and the possibilities their regard for themselves (p.1090). This way, it addresses that productivity tracking as a quantification of performance will affect employees not only their self-

perception, self-construction, and, over time, their identity but also their understanding of their knowledge of what they are worth, capable of doing, and ability to achieve. For example, employees who adopt the quantification output as part of their self-knowledge and are categorised by the productivity-tracking technology as 'unproductive' or 'productive' will likely regard their capabilities in this job and worth for the organisation accordingly. The reason for that is the already elaborated factors of social comparison and peoples' need to evaluate their self-concept based on external perceptions.

However, how self-knowledge or information affects a person depends on the meaning or value they assign. For information to be meaningful, it needs to be relevant for the individual; arguably, that may not always be given. However, it has already been shown that work is relevant to people's lives and that the activity of work comes with different aspects, such as the fulfilment of social needs or the sense of achievement, that humans tend to assign meaning to. Since the information about their performance at work represents the employees' achievements and acts of work, it can be assumed that it will hold meaning for them. Another aspect that underlines the meaningfulness of given information and self-knowledge to the employee is stated by Maltseva (2020), who claims that employees are mentally and psychologically connected to their jobs and satisfy their needs (p.496). It has been discussed that workplaces and work activities provide information and social environments that impact identity formation. The concept of performance-based identity and Henschke's theory suggest that there is a connection between the self-perception or knowledge being part of the identity information and the data or metrics being provided by productivity tracking technology.

Overall, this section shows how productivity tracking applications function as a guide for employees, forming self-knowledge and their identity through the technologies' impact on the perception of themselves, of others, and standards or norms integrated into the metric of the technology. If we look at the information on performance in relation to the meaning of the self-concept for identity formation, which has been stated at the beginning of this chapter, it becomes clear that self-recognition within the information and classification presented needs to be addressed.

2.3.2 The Relevance of Self- and Misrecognition in Workplaces

The information provided by productivity monitoring technologies, such as rankings and categorisations, affects the employee's identity, and the employees also shape the information through their understanding of the metric. In the following section, the relevance of self-recognition, which derives from the importance of self-evaluation for self-construction, will be addressed. The self-evaluation of the employee is further affected by whether a person recognises themselves in feedback or not. It could be assumed that this process specifically impacts self-recognition, when employees identify themselves in the data about their performance, rather than impacting their identity. I argue that self-recognition and people's self-concepts are pillars of the identity formation over time. Both aspects

are shaped by the tracking technology's feedback based on the employer's expectations. Because of the close relatedness between identity formation and information, self-recognition and misrecognition of the self would have negative consequences for the person's self-concept and identity. This means that recognition occurs in two directions: The employees recognise themselves and their doing in the quantification of work, or they do not, and they can be misrecognised by the technology and categorised wrongly. This problem of misrecognition occurs, for example, through what could be called 'the datafication problem' that manifests in an oversimplified representation of employees' working behaviour, which leads to them finding it difficult to identify themselves in it. The oversimplification leads to difficulties regarding context and reflection (Maltseva, 2020, p.498). Also, as mentioned earlier, Oshana (2013) states that pre-defined metrics can lead to a disruption of self-concept. Waelen (2022) elaborates in her paper on the effect of categorisation on identity and what misrecognition through the technological lens can mean for the individual's identity (p.215). Waelen (2022) states in her paper on self-misrecognition and facial recognition technologies that definitive features are essential for the deliberation of the subject and them being their own agent (p.221). The features that she refers to are traits of recognition like gender, age, and race, which may impact the person's identity but do not necessarily need to (Waelen, 2022, p.215).

Her analysis can be taken over into the discussion on recognition and misrecognition in productivity tracking technologies because the information on employees' performance can be regarded as self-knowledge, following Walker's and Caprar's concept of performance-based identity (2020), or as traits of recognition of oneself as Waelen (2022) understands the features of reference. Information given by the technology frames self-knowledge and, therefore, self-perception of the employees.

The ranking and classification that employees are provided with tend to hold the potential for misrecognition. Waelen (2022) states that misrecognition in a socio-technical context can occur through technical failure and limited information processing that leads to individuals being failed to recognise in a philosophical or normative sense of the word (p.215). It is implied that a person has aspects of themselves and their identity that can be misunderstood or tend to be ignored (ibid.). The categories of productivity that are presented within productivity tracking applications leave an epistemic gap between the metrics defined by the application and the daily work reality of the employee. For example, suppose an employee receives high productivity rankings at all times, but the output of the work processes is not of high quality. In that case, the employee might not acknowledge this and see no need for improvement because they self-recognise themselves in the high ranking. This could lead to a lack of motivation to reflect and learn about their capabilities and how they could change their behaviour to achieve sufficient output even if the system would not recognise the way of work as 'productive'. If a person's performance does not fit the metrics of what productivity is or if their way to work is not regarded as productive regardless of the outcome of the process, the person may be ranked low for all to see in the productivity tracking application. A misrecognition of the person's efforts to work 'well' could lead to them being

wrongly accused based on the assessment of elements by the technology (Waelen, 2022, p.219). According to Waelen (2022), this can negatively affect a person's self-respect and self-esteem, just like the misrecognition of another human being would have (pp.217, 221). This fits with Walker's and Caprar's (2020) claims, who also regard a strong connection between employees' self-esteem and self-knowledge being provided in the form of performance ranking.

The social embeddedness of the demand on employees to be and act as expected at the workplace leaves little room for liberated self-development and individuality. This requirement Is emphasised by the simplified perception of work that comes from the practice of productivity tracking regardless of the discrepancy between the reality of work and the data. Waelen (2022) states that misrecognition within the categories being provided and its effect on self-development can lead to a violation of a person's autonomy and justice, which would end up threatening individuals' ability to be well and flourish (p.218). Waelen (2022), as well as Walker and Caprar (2020), show that productivity-tracking technologies can not only cause harm regarding the identity formation of employees through misrecognition but also prevent them from improving or acknowledging their own capabilities. This lack of recognition of oneself and one's potential prevents employees from acting fully as individuals with autonomy. The autonomy and self-knowledge that people have are the base for their ability to flourish and strive for their goals build meaningful and strong connections with others. Through recognition of themselves and others, people identify their qualities and can reach a high degree of autonomy (Waelen, 2022, pp.217-218). Therefore, recognition shapes the identity of people, which means that it can help them to be authentically themselves or be harmed in their self-development through misrecognition. (Waelen, 2022, p.218). Employees are forced here to fit into the frame given by the productivity tracking application, which does not support autonomy and liberated self-development at work. This is problematic because workplace environments are meaningful for the individuals' identity formation and, therefore, how they understand themselves.

2.3.3 Employees' Autonomy and Agency

The self-recognition is highly relevant for the development of employees' self-concept. Categorisation and misrecognition influence individuals' self-perception because it affects how they evaluate themselves and regard their value in an achievement setting such as the workplace. Further, I contend that this leads to a restriction of the autonomy and agency of the employees because the employees' dependence on the productivity tracking technology for evaluation of their work sets a strict frame in which they perceive themselves. This frame is coloured by the norms and expectations of the organisation. It limits the employees' recognition of their abilities and capabilities, affecting their autonomy and agency. This mechanism serves the purpose of control and standardisation, resulting in a homogenous workforce that follows the rules of productivity and embodies the imperative of high performance. In a workplace where monitoring technologies are used, employees are not trusted. They are manipulated explicitly into behaving in a 'productive' way while not allowing them to reflect on the

processes and outcomes of the measurement. Aloisi and de Stefano (2022) write that this leads to "the total erosion of autonomy, self-governance and agency impairing abstract thinking and creative contribution in favour of diligent homogeneity" (p.300). But, how do the autonomy and agency of an employee relate to each other?

In this thesis, I am using the definitions of autonomy and agency by Prunkl (2022). She discusses these concepts in an AI setting. However, her understanding of the terms is also helpful for discussing productivity tracking with no AI because it addresses issues that can be applied in a more general context. She states that autonomy can be referred to as "a person's effective capacity for self-governance", meaning they act upon beliefs, values, reasons, and motivations relevant to sense themselves (Prunkl, 2022, p.1). The author claims that autonomy constitutes two fundamental aspects: authenticity and agency. The former defines Prunkl (2022) as "the beliefs, values, motivation, and reasons help by a person are in a relevant sense authentic to that person, i.e., not the product of external manipulative or distorting influence." (pp.2-3).

Here, Sunstein defines external manipulation as "an action counts as manipulative if it attempts to influence people in a way that does not sufficiently engage or appeal to their capacities for reflective and deliberative choice" (Sunstein, 2015, p.443). Looking back at Waelen (2022), it is crucial for an individual to be authentic to be recognised based on the traits of recognition that they identify with (p.215). I want to add that manipulation is often directed towards a specific goal or interest, because of which the person is made to act or think a certain way. Thus, manipulation can lead to people altering their motivation and beliefs while moving them away from what they regard as their authentic being and their agency. Being authentic is closely related to a person's agency because people with autonomy act upon what they regard as their authentic self and how they perceive it to be and, therefore, act based on the values and ideas of life they embody. Choosing from meaningful options and changed values or beliefs becomes highly relevant when looking at productivity tracking technologies. In her article, Prunkl (2022) calls for protection from deception and manipulation through technologies maintaining the authenticity of autonomy, and she emphasises the importance of maintaining individuals' control of their agency and, therefore, retaining their decision-making capabilities (p.3). She mentions two aspects that would negatively affect autonomy: Firstly, deception and manipulation to reshape beliefs because authenticity depends on whether reliable information is available or not (ibid.). Secondly, Prunkl (2022) mentions the loss of opportunity through, for example, prevented access, automated decision-making or biases, and loss of competence through decision-making processes that are taken over by third parties, such as outsourcing decisions to AI programs (Prunkl, 2022, pp. 3,4). I argue that these aspects can be found when looking at productivity-tracking technologies. Workplace surveillance technologies have this limiting effect because they nudge employees into a behaviour fitting the company's demands to generate profit. The following section will go into depth about the dynamic of nudging and what it means for the individual's autonomy.

2.3.4 Nudging with Surveillance Technology

Workplace surveillance technologies are supposed to alter the behaviour of employees. More specifically, productivity tracking and other monitoring technologies are used to nudge employees into specific behaviour. Nudging, as a practice, can be understood as a choice architecture that aims to alter an individual's behaviour without actively forbidding alternative options (Gal et al., 2020, p.7). Mettler and Naous (2022) argue that the economic and paternalistic motives that motivate companies to use workplace surveillance certainly raise ethical issues (p.2). The authors regard the use of monitoring as an implication for tensions around choice, discrimination, and privacy control that led to a trade-off between the good for employees and the good for the company and employer (Mettler & Naous, 2022, p.8). The choices and behaviour of employees are the results of monitoring technologies nudging them in a way that benefits the company and endangers their ability to act as autonomous beings. The question here is under which circumstances is nudging justified, and what makes it dangerous to a person's autonomy?

Sunstein (2015) states that nudging is mainly a regulation tool that can be regarded as ethical or not depending on the promotion or oppression of welfare, autonomy, and dignity (p.413). He stresses that nudging activities should not compromise a person's dignity (ibid.). I understand dignity as something that stands for a person's fundamental right to be valued, respected and treated ethically. Kapust (2011) similarly regards dignity as violated if there is a lack of respect towards a person and if they are not treated as actors with a right to justification (Kapust, 2011, p.160).

Sunstein states that nudging is an ambivalent practice that could be used to manipulate, which should be avoided, as well as to support minorities and preserve freedom of choice to some extent (Sunstein, 2015, pp.416, 419). Here, he stresses the importance of freedom of choice, while the loss of agency through nudging is one of its common objections (Sunstein, 2015, p.414). Sunstein writes that choices should be given to some extent and could be regarded as a realistic perception of the natural limits of choices in life and the hierarchy structured environments in which choice architectures are built. In this thesis, manipulation is understood as an action that influences individuals or groups in a way that undermines their capability of reflection and their liberty of choice to a harmful degree. Not all manipulative actions would be unethical since the evaluation is context-dependent. If a parent tries to nudge a child into doing something generally perceived as good for them or helping them in a manipulative matter, this could be understood as an acceptable manipulation because they depend on adults and underage. For example, it would be accepted if a parent would give their child only options that they approve of by placing things they want them to play with close and other things, such as a tablet with video games, out of sight.

For nudging to be ethical, the related choice architecture needs to be transparent and regulated by public scrutiny (Sunstein, 2015, p.428). Sunstein (2015) claims that if nudging was done

transparently, enabling informed choices, it might be able to correct biases and support the autonomy of individuals (pp.437,438). He contends that nudges often promote the agency and autonomy of people instead of undermining it if they allow people to recognise solutions and options within the choice-making that would otherwise have been invisible to them (Sunstein, 2015, p.438). I agree with the need for nudging processes choice architecture to be transparent, and I see the need for regulation as Sunstein does. However, I agree that nudging can open up choice architecture to people and potentially make them aware of options they might have neglected. However, I disagree with the claim that transparent nudging could correct bias. Transparency could lead to increased awareness of bias but will not by itself lead to bias being corrected, as bias is about internal attitudes and beliefs that can only be changed through individual effort.

Moreover, it is crucial to consider the context of the nudging process and its power structures because the context is the foundation for people's options within nudging dynamics. To have the ability to choose for oneself does not necessarily mean that they have the capability to do so. Sunstein (2015) argues that whether an agency is supported or not depends on the context in which nudges take place, and Sunstein states that transparency is needed to safeguard autonomy and agency (p.450). On the contrary, Ferraro (2021) points out that it has been argued that nudges and individuals' autonomy are not compatible with each other because of the missing degree of transparency that would allow people to be aware of being interfered with and controlled (Ferraro, 2021, p.26). Advocates of this argument claim that nudges would not be effective if they were transparent. Ferraro disagrees and contends that nudges would even work if individuals knew them (ibid.). Transparency would give people the freedom to decide to pursue or not pursue their preferences while exercising their agency. Ferraro (2021) states that nudges might be less effective when being transparent but that the reduction of effectiveness should be accepted when mitigating the problem of nudges' interference with people's lives on a highly controlled level (p.27). I agree with this statement and see the need for transparency in nudging, especially in contexts such as monitored workplaces. My concern is that productivity tracking is embedded within a power structure, reinforced through the strict control mechanisms utilised by the surveillance technology, that leaves little room for choices outside of the expectation frame the employer and the organisation set about how an employee shall behave. In this context, the monitoring may also be called manipulation because the given information and social setting lead to their choices being led and their beliefs and self-perceptions altered. Sunstein (2015) states that nudges need to sustain freedom of choice (p.423). In the context of productivity tracking, I argue that the choice architecture is replaced by coercion due to the missing option to opt out and the employees' loss of their agency which is core to their autonomy with authenticity, as shown by Prunkl (2022).

Employees are nudged to behave in a specific way. They are even encouraged to work against their interests because they are pressured by requiring them to reach specific 'productive hours' regardless of the impact of the work on their health. Nudging incentivises specific behaviour and makes

employees follow an internalised imperative manifested through their identification with performance and information. This internalised thinking is often manipulative in the work environment due to power relations and information asymmetry. Building up transparency about the monitoring processes would be needed from an ethical point of view and desirable. Workplace surveillance technologies show how impactful control and command strategies can be on the employee's autonomy. This calls for reflective use and transparency in practice and storing and distributing data so that employees remain autonomous, making their own choices and forming judgments.

2.4 Conclusion

This chapter discusses the relationship between identity and information, followed by taking a closer look at the concepts of self-knowledge and self-recognition and their effect on the employees affected by workplace surveillance, which holds the potential for misrecognition. The quantification of work has the potential to disrupt the identity of the employees and support a dependency on technological output due to the relation between information and identity formation. The employees are impacted in their self-understanding, worth, and perception of others by the data and the practice of being tracked. This can harm the employees by making them feel inadequate, de-motivated, or highly pressured, depending on whether they can meet the requirements of the metrics associated with the expectations within the organisation. Productivity tracking is a form of nudging that may be regarded as coercive if it supports the instrumentalisation of the employees and essential transparency is missing. The employee takes over values and standards ingrained into the technological application and is affected in their recognition of their capabilities and ability to make choices, keeping them acting within the set frame attained through the categories and standards determined by productivity tracking applications. The productivity-tracking technology and its data impact the employees' self-understanding and identity, eroding their autonomy, sense of authenticity, and agency. The next chapter will explore potential solutions for using these technologies in a way which addresses the mentioned tensions of power dynamics, the maintenance of employees' autonomy, and transparency in the workplace. For this purpose, I will explore the concept of epistemic injustice in the workplace and discuss humanistic management as a guiding concept to proceed into a human-orientated workplace.

Chapter 3: Epistemic Injustices and the Humanistic Workplace

3.1 Introduction

This thesis shows that productivity-tracking applications are technologies that strongly impact employees' identity formation. This influence and the impact of information in the social environment of work leads to dependency on the output for validation of self, which could potentially alter the values and impact employees' choices. Productivity tracking as a practice of nudging can lead to the erosion of autonomy. If no transparency is provided, employees are hindered from making informed choices and acting as individuals with agency and authenticity. This calls for a reflective use of this technology

that needs to be transparent. Information here is the critical factor that affects identity formation, decision-making, autonomy, and fairness in the workplace. I argue that the hierarchical structures and employees' dependency on productivity-tracking applications, regarding their identity, strengthen epistemic injustices at work. To explain the concept of epistemic injustice, I will use related work by Fricker (2007), Byskov (2020) and Kwok (2021). This injustice arises from power dynamics and lack of transparency affecting decision-making processes. Under the assumption that productivity tracking applications and similar workplace surveillance technologies will be continuously used in the future, this chapter will conclude with an attempt to guide a human-centred use of these technologies. The goal here is to create workplaces that value transparency, accountability and the dignity and autonomy of the individual employee. For this reason, I will discuss the concept of humanistic management in the setting of productivity tracking at workplaces by using Melé (2016).

3.2 Addressing the Lack of Transparency

The previous chapter stated that productivity tracking as a nudging activity can only be exercised in a way that allows employees to be autonomous if it is done transparently. There is a potential lack of transparency within workplaces utilising productivity monitoring. The decision-making that is based on productivity tracking applications is difficult to justify to employees and strengthen the power and control dynamics at work. If employees are not provided with clear information and feedback concerning their work and what assessments by the manager staff are based on, employees are denied the opportunity to reflect on their actions and continually improve their skills. This missing recognition influences their autonomy and agency, as elaborated in Chapter 2. The opacity and inaccurate representation of technology's work reality by the datasets deprive them of the ability to identify their options for action or decision and impair their capability to evaluate an employer's decision. Employees lose their capability to understand how others perceive their actions because of the missing visibility of how or on what basis decisions are made (Gal et al., 2020, p.5). This is caused by misrecognition and missing contextuality, as well as the accuracy of the measurements. The narrow scope of the categorisation within productivity tracking could be regarded as a strict but helpful measurement for employers' and managers' decisions. However, because of the missing nuances of work decisions based on it, it may feel unjustified to the employee.

In monitoring technology, applications are mainly used for collecting and classifying employee data into categories, making work processes visible and easy to control. In the workplace surveillance context, epistemological problems make surveillance activities non-transparent and create power imbalances due to asymmetry. Bronowicka and colleagues (2020) state that a lack of access to information leads to power imbalances in workplaces deepening. It strengthens "the power imbalances between operators who produce the data and the management staff who use it for control purposes" (Bronowicka et al., 2020, p.36). The information that productivity-tracking applications collect and the judgment based on it are not widely shared among the employees. Furthermore, the datafication of work

contains metrics that are not clearly communicated in their meaning or weight for workplace decisions. For instance, the classification of being 'productive' implemented into the monitoring application's categorisation and the value that certain ways of working have to the company are defined vaguely. This vagueness stems from the contextual meaning of productivity as it will differentiate between industries or specific occupations. Even comparing the productivity of different occupations in the same industry may not be possible. For example, if one thinks about an office environment, look at a person being hired for accounting and another working in consulting. Both will have different parameters that state what productivity means in their field, even if they work in the same company. Also, what makes someone productive is individual. Thus, tracking may help some to hold themselves accountable to the task, but it can also endorse heightened performance pressure, which may lead to less productivity due to procrastination or unhealthy work patterns, such as working with too few breaks, leading to mistakes that hinder the achievements that the employee is striving for. These thought experiments illustrate how it can be counterproductive to 'being productive' and may also foster misrecognition of the employee because individual work realities are not included in what is classified as productive.

The comparability problem of productivity and the strict metrics representing expectations of the employers differing from employees' reality cause the output of the productivity tracking technologies to be inconclusive. This leads to decision-making processes that are not easily justifiable due to the limited traceability and meaning of the technological output about actual working realities. Employees cannot fully know on which basis they are assessed, and employers will struggle to justify decisions based on simplified datafication of work. However, within a strongly hierarchical workplace in which employees' work is reduced to their ranking in productivity monitoring, it is likely that employees will not be able to demand justification for management decisions. The lack of access acts as an instrument of power, widening the gap between employees and management; thereby, employers' power and control are increased (Bronowicka et al., 2020, p.36). Employees are endangered of losing their autonomy due to being denied information and access. Therefore, they can engage in well-founded dialogue with their employees about their working conditions or make informed decisions about their lives and careers.

3.3 Epistemic Injustice

Most workplaces are hierarchically structured (Kwok, 2021, p.1104). This is not necessarily problematic if a person's authority is justified and accepted because of their qualification or experience and if there is some control mechanism and open communication within the organisational structure. However, I have shown that hierarchical structures at workplaces with workplace surveillance technologies are heightened because of limited transparency, employees' dependence on the information provided by the technology for external perception, and an overarching technological control mechanism that follows strict metrics on productivity.

In Chapter 2, I illustrated the relationship between information and identity and its result in the workplace concerning employees' autonomy and agency. Information a person has or does not have is closely related to their power. Knowledge about things and circumstances extends a person's ability to estimate situations and make educated decisions that confer autonomy and power. However, some knowledge is regarded as more important than others, leading to some voices being heard and others being ignored or silenced. They are, for example, mistreated in their capability to know something or their ability to describe their experience. This injustice is described as epistemic injustice. Individuals find themselves to have epistemic disadvantages within unfair circumstances (Byskov, 2020, p.121). Kwok (2021) states that a robust hierarchical structure in workplaces contributes to testimonial and hermeneutical injustices toward employees (p.1104). The concepts of Testimonial injustice and hermeneutical injustice are two types of epistemic injustices introduced by Miranda Fricker (2007). She defines these concepts as follows:

> *"Testimonial injustice occurs when prejudice causes a hearer to give a deflated level of credibility to a speaker's word; hermeneutical injustice occurs at a prior stage, when a gap in collective interpretive resources puts someone at an unfair disadvantage when it comes to making sense of their social experiences." (Fricker, 2007, p.1)*

Testimonial injustice occurs if the hearer takes the speaker less seriously because of ingrained injustice. This arises from prejudice, which can include, for example, discrimination based on gender, race, class, or stereotypes. Based on prejudice, a hearer would give the speaker less credibility within the social structure, although they do not deserve it. Hermeneutic injustice is created by some gap between the actors. This gap can have different forms but always impacts the capability of interpreting a resource or information, reporting on their experiences, or making sense of their experience. For example, a group may not have the words to describe their experience because of missing concepts or language barriers, or shared experience is missing between speaker and hearer. These injustices are not only a question of fair distribution of epistemic goods such as information but refer to whether a person can make informed decisions. As previously discussed, the lack of transparency and an information asymmetry at workplaces utilising monitoring technology limits employees ' autonomy and agency. The implied relevance of power aspects and information in the workplace surveillance context makes Fricker's theory on epistemic injustices a fruitful scope to further investigate the impact on employees.

Testimonial injustice is relevant when looking at strongly hierarchical workplaces that lack transparency through productivity tracking practices. Employees are assigned less credibility because the output of the monitoring device is regarded as evidence-based 'truth' (Gal et al., 2020, p.10). Employees face prejudice or negative expectations towards their behaviour, such as the ideas of the lazy employee who needs to be controlled to be productive, which may lessen their credibility in the eyes of the management. According to a study on workplace surveillance, the need for monitoring derives from the fear of loafing and the expectation of control ensuring productivity (Bronowicka et al., 2020, p.8). Because of this prejudice, employees could also be regarded as less competent when discussing work

matters, although their knowledge about their work processes, productivity and how they understand 'productive work' might be just as valuable

Hermeneutic injustice is evident in workplace monitoring because workers are confronted with the gap described above when there is a lack of transparency about the information and its meaning in decision-making processes. This implies a lack of epistemic resources that employees are confronted With, for instance, includes their limited insight into how the productivity tracking output datasets are used to justify decisions. Their capacity to make sense of the information provided on their productivity is essential because of its relevance to their self-recognition and identity formation process. If there is a lack of transparency within a workplace and the employee's ability to make informed decisions as well as to learn is limited, and they have less credibility while being deceived and manipulated, for instance, because of workplace surveillance, employees lose their 'capacity as knower' which is an epistemic injustice and harms their autonomy (Byskov, 2020, p.119). This shows how hermeneutical and testimonial injustices form barriers to epistemic agency and can lead to employees being silenced by their epistemological confidence being undermined (Kwok, 2021, p.1119). The study by Bronowicka and colleagues described that monitored employees indicate experiencing lower self-esteem and decreased confidence in their abilities (2020, p.9). Kwok (2021) supports this and stresses the importance of recognition that leads to the reduction of a person's epistemic confidence - "You do not believe in your own epistemic capacities because others do not believe in your epistemic capacities, regardless of whether you are actually epistemically capable" (p.1118).

The problem of epistemic injustices in workplaces is that employees are being denied recognition as epistemically capable knowers, owning credibility and contributing to the shared knowledge of an organisation (Kwok, 2021, p.1106). Consequently, these injustices affect employees' identity formation, autonomy, and agency. Through the limitations that they experience, employees are easier to control and are less likely to act against the surveillance practice individually. When they resist it, they will do it on a small scale, such as 'gaming the metrics', explained in Chapter 2. However, employees are still under pressure to act according to the simplified categories of the technology and demands of the company. Productivity tracking exacerbates the already existing power imbalances in workplaces. In the interest of employees' autonomy and the impairment of their identity and well-being by productivity tracking, it is necessary to work toward mitigating epistemic injustice.

Measures like open communication, education, and the aim for transparency may help to mitigate deflated levels of credibility in the social context and unfair disadvantages in epistemic matters. Also, Kwok (2021) claims that if the moral wrongs of epistemic injustices are taken seriously in hierarchical workplaces, restructuring of workplaces is needed to make them as epistemically just as possible. (p.1126). Moreover, a study on the acceptance of tracking technologies in workplaces conducted in Germany shows that employees were especially critical if only the employer had access to the gathered information (Abraham et al., 2019, p.670). Of the 800 study participants, only 9% rejected the technology outright. However, many employees were sensitive to tracking in terms of the

transparency and effectiveness of information changes and work council involvement (Abraham et al., 2019, p.672). Abraham and colleagues report that there is a need for carefully introducing tracking technology in workplaces, including adjustments in management (ibid.). This refers to the management's requirement to consider employees' personal experiences and employ a participatory approach, including employee representation in workplaces (ibid.). Additionally, Bronowicka and colleagues (2020) show in their study that most participants said that monitoring would be acceptable at work if it is conducted fairly, still allows for freedom at work and is not too excessive. It shall be done in a transparent, professional, clear and consistent way (p.19). Building on this demand, the next chapter refers to humanistic management as a starting point for a kind of management that aims to support the individual employee, discourse within companies, and morally more justifiable use of productivity tracking technologies under the assumption that it will be practised continuously.

3.4 Humanistic Management – A Starting Point

In the previous section, I showed that strong hierarchical structures and a lack of transparency can result in employees experiencing epistemic injustices. With the potential of productivity tracking applications to disrupt employee identity formation and autonomy, it is inevitable that the way the technology is implemented into the organisation and its supervision is important to discuss. Considering these technologies' all-encompassing effect, it is reasonable to ban workplace surveillance technology from workplaces to protect employees' autonomy and personal rights. However, as stated earlier in the thesis, several workplace surveillance technologies have been established today. At this point in their distribution, expecting to remove surveillance technologies from workplaces entirely is unrealistic. Clawson and Clawson (2017) also call the fight against implementing workplace surveillance technologies a losing strategy and recommend that employees instead develop political, economic and organisational power to alter the context in which the surveillance technologies are integrated (p.68). For productivity-tracking technologies to be utilised as a tool for orientation rather than an instrument of total control depends on the social environment and, therefore, management structures in which it is embedded. Aloisi and Gramano (2020) state in their paper that the General Data Protection Regulation (GDPR) supports the recognition of employee dignity as a fundamental right and advocates for the regulation of surveillance technologies, for example, through the authorisation of the instalment of these technologies (p.126). However, they also conclude that they are not optimistic about the regulations because of weaknesses regarding dealing with automated or data-fuelled decision-making (Aloisi & Gramano, 2020, p.127). Productivity-tracking technologies support data-driven decision-making, and I argue that there is not only a need for a control mechanism when the technology is implemented but also when it is in use. Workplaces need to be structured to put decision-makers in the position to be held accountable and empower employees in their capabilities as individuals with agency.

There will be conflicts of interest regarding productivity tracking applications because of economic values. Some regard technology as necessary for planning and control purposes and may not

regard the harm it can cause to the individual's identity and autonomy. Employees' work is reduced to data sets and productivity rankings, making work processes and personnel-related tasks and resources more accessible to manage due to homogeneity and oversight. Harding (2013) claims that the individual employee is lost in the organisational roles and simplified categorisations (p.80). The pressure of this reductionist approach can be counterproductive for the employees' productivity because they suffer from the heightened pressure or are frustrated; there is no economic value in the long run if the work suffers (Bronowicka et al., 2020, p.9). It could be argued that employers could dismiss employees who do not fit the expectations of the productivity metric, but if this is done frequently, the companies get a bad reputation and would likely have problems getting new employees. This would also not be in the interest of the companies, focussing mainly on profit.

Hence, there is also an economic interest for the dynamics at the workplace to change and to make the use of surveillance technologies acceptable for employees. For instance, Aloisi and de Stefano (2022) claim that the co-determination of employees and employers needs to be supported to respect the autonomy and individual capacities of the individuals at work and build trust within the work community (p.308). Lamers and colleagues (2022) claim that the management needs to support the worker's dignity. They introduce the capability approach as a conceptual framework to focus on the heterogeneity of employees and introduce a dynamic and agent-based accession of workplace surveillance and dignity (Lamers et al., 2022, p.11). I found this concept promising when focussing on dignity because employees' capabilities should not be neglected when discussing dynamics in workplace surveillance because of its relatedness to epistemic injustice and a person's autonomy. In this chapter, I will focus mainly on institutional organisation, as the social environment and power relations are overarching to the problem of productivity tracking and its effect on employees. The aim is to take on an interdisciplinary approach by including business ethics and psychology perspectives. From my perspective, the three main aspects that need to be addressed in managerial structures are the need for transparency, the importance of accountability, and participative engagement in workplaces. As elaborated on earlier, transparency is highly relevant for the ability to make informed decisions as an autonomous being and for reasons of justice. The monitoring and organisational structure behind it needs to be transparent, but also the technology itself should serve this thought of transparency by, for instance, explaining the motivation behind the categories and design (Bronowicka et al., 2020, p.31; Spiekermann & Pallas, 2006, p.15). Building upon the transparency demand, managers and employers in power must be held accountable for decisions. This also includes giving employees the credibility to raise their voices in a protected environment and asking them to justify their decisions (Kwok, 2021, p.1121). Additionally, this shows the importance of the human variable in workplaces because it fosters open communication, reflection, and constant evaluation of the results of productivity tracking. Aloisi and de Stefano (2022) state in a fitting description that "technology-coded authority is less open than human authority" (p.302). To decrease the impact of hierarchical structures within workplaces, it should aim to enable the active participation of employees through councils and elected representatives. Yeoman

(2014) calls this 'democratising workplaces'(p.102). Accordingly, employees should be able to "co-shape their socio-technical reality in the workplace", including organisational goals, regulations, and rules related to the tracking practice, while being treated as mature and autonomous individuals (Bronowicka et al., 2020, p.31; Kwok, 2021, p.1121).

The three aspects that I claim to be most important to mitigate harm to the employees while productivity tracking is practised can be found in the concept of humanistic management. This is a concept from the business ethical perspective which could be regarded as a counter to the new Taylorism. As explained in Chapter 1, workplace surveillance technologies of today are understood as a heightened form of the Taylorism approach to management, which focuses on the rationalisation and efficiency of work processes. Humanistic management rejects the reductionist view of homo economicus from the neoclassic theory. The term homo economicus describes a theoretical construct that understands "calculated self-interest as the primary human motive in all transactions" and has been criticised and discussed across disciplines for being inadequate (Urbina & Ruiz-Villaverde, 2019, p.63). Furthermore, the humanistic management approach rejects homo mechanicus, which regards work limitingly to the execution of detailed and strict orders, a term from Taylor's scientific management approach (Méle, 2016, p.38). Humanistic management aims to provide a perspective shift in the treatment of employees at work by focusing on their well-being and flourishing as individuals (Melé, 2016, p.33). This embodies a more holistic perception of the individual and their wholeness as a being with rationally and emotionally based behaviour, goals and problems, weaknesses and strengths. Humanistic management is supposed to humanise management and stresses the importance of cooperation and respect while promoting economic activities and adding value to society and individuals' well-being (Melé, 2016, pp.34,38). Melé (2016) writes that "control techniques are important but are fostering creativity, motivation and good feelings are also very relevant" (p.38Humanistic management claims explicitly to promote the capacity of self-determination and self-actualisation at work (Melé, 2016, pp.38, 46). This supports the employee's autonomy and agency at work. The three principles of humanistic management that Melé (2016) defines are:

"1) humans deserve and rightfully expect our dignity to be respected under all circumstances, 2) ethical consideration must form part and parcel of business decisions, and 3) business should actively embrace the idea that corporate responsibility is contingent upon initiating and maintaining an ongoing dialogue with all stakeholders." (Melé, 2016, p.38)

These principles are compatible with my demands on workplace management with productivity tracking because they value the importance of accountability when facing decision-making in workplaces.

Humanistic management includes seven managerial practices which derive from the humanistic principles that Melé (2016) introduces. In the following, I will apply them to the quantified workplace

and compare them to the demands of a more just workplace, including productivity-tracking technologies. Some of the practices are focused on the economic side of business ethics or are formalities and will only be mentioned briefly.

The first and second practices create institutional statements about the goals and form strategies and action plans (Melé, 2016, p.49). Both practices seem mostly organisational, but institutional statements, for example, regarding handling the employees in a dignified way, could also be understood as a foundation for accountability. Additionally, Melé (2016) states that goals set in this practice should also include strengthening the organisation by building talents and helping employees overcome their weaknesses (pp.49-50). This support seems promising at first, but it could potentially lead to increased pressure on the employees to constantly achieve new goals and work on their talent, for example, through the monitoring being used to remind them of their inadequacy. Similarly, it is not clear what is understood under weaknesses. This also can be exploitation and label employees as 'weaker' than others, which may lead to harm due to employees' identity being impacted by the information they receive about themselves. These issues may be mitigated through the third, fourth, and seventh practices mentioned by Melé (2016), which are all addressing organisational aspects: 3) organisation structure, 4) coordination and control (p.50), and 7) the aspect of leadership (p.51). Specifically, the leadership practice in humanistic management is supposed to serve the employee's needs, their growth, and the common goals of the community (ibid.). To ensure this, employers and employees' representatives could, for instance, agree upon well-being contracts and have regular meetings to allow for dialogue. In the third and fourth practices, conflict management is addressed, and it is stated that the common good of the working people should always prevail over particular interests (Méle, 2016, p.50). This sounds like a promotion for the well-being and interest of the employees, but these interests are not clearly defined, and the intention sounds idealistic. What is understood under the common good could also lead to discrimination against the individual employee because they may be silenced. This could reinforce hermeneutic injustice if, for example, epistemic gaps are ignored to the disadvantage of a few because the majority does not experience it. The following two practices are mitigating this injustice. The fifth practice is communication, which is supposed to be transparent, purposefully exchanging information, and truthful. It shall avoid manipulative information or lies (Méle, 2016, p.50). Regarding productivity tracking, open communication and transparency could lead to the monitoring and decisions based on it being less opaque or manipulative. This transparency also demands a clear justification of decisions made by the human resources department. The sixth practice of decision-making within humanistic management supports this by not being limited to solely economic or technical reactions through the active inclusion of human evaluation and ethical considerations (Méle, 2016, p.51). Both practices support the employee's dignity and help maintain their agency. Additionally, open communication and discourse could lead to more trust within the staff, which might lead to employees feeling comfortable to open up about experiencing the adverse effects of the monitoring practice, maybe speaking about

their anxiety regarding the rankings or the pressure they feel with others and find solutions as a community.

Overall, humanistic management could be a way to use productivity tracking in a reflective manner that is transparent and decreases the impact of hierarchical structures through co-creation and community in workplaces. The way that Melé (2016) presents humanistic management is quite idealistic. Nevertheless, it incorporates many demands that scholars have in workplaces today, with or without productivity-tracking technologies (Bronowicka et al., 2020; Kwok, 2021, p.112). It proposes a starting point for a humanistic approach to work, which is particularly relevant in the use of surveillance technologies because it recognises the individual worker and bridges the gap between employer and employee that technological applications have widened, their simplified mediation of the reality of work, and the increasing, faceless processes of control. The approach incorporates ethical considerations and assigns them more weight than economic values(Méle, 2016, p.46). The theory acts as a bridge connecting humanistic values and applicability possibilities in the market economy. At the end of his article, Melé (2016) expresses hope that the humanistic management approach may guide future research toward human-orientated practices that do not consider employees as instruments serving the best economic results (p.52).

3.5 Conclusion

At the beginning of this chapter, the lack of transparency and misrepresentation in productivity tracking practices is described in relation to power dynamics at work. Based on this, I argued for employees facing epistemic injustices at the workplace, specifically testimonial and hermeneutic injustices. Both injustices act as barriers to the autonomy and agency of the employees. They suffer for missing recognition of their credibility; they are silenced, and their experiences are rendered trivial. This and a lack of transparency make it difficult for them to receive clear justifications for decisions about their work life or make sense of them. This is morally wrong and supports dehumanisation and the exploitation of employees. There is a shift in management structures necessary to mitigate harm to the identity and epistemic injustices that employees experience through productivity tracking technologies. I introduced humanistic management to support the individual employee and treat management as a way to organise a company in the sense of a community with lived discourse and support. I am aware that the humanistic management approach is idealistic and has its vagueness and flaws. However, the approach is a starting point for consideration in practice that incorporates the philosophical perspective into the corporate reality. Ethical and humanistic considerations are needed to balance classical economics' rational and utilitarian scope. Humanistic management could be an avenue to a more human-centred approach to management, which is needed, especially with the growing implementation of monitoring and tracking technologies changing the workplaces we know.

Final Conclusion

Overall, this thesis has shown that surveillance technologies, such as productivity-tracking technologies, are impactful additions to workplaces today. It has been clarified that employees are affected in their behaviour and identity when these technologies are incorporated. The thesis presented benefits and negative consequences for employees through productivity-tracking technologies at work. However, in a work environment with strong power dynamics, the employees' identity is disrupted, and their autonomy is endangered. It has been shown that these disruptive effects occur due to the transformative and self-actualising role that work plays in individuals' lives and the connection of identity and information through the mediation of self-perception and the perception of others by the tracking technology and its categorisation. Additionally, as stated previously in Chapter 2, employees are nudged into behaviour that complements the aim of high profit and efficiency of the company. The social dynamics and pressure, as well as the technological framing of productive work, create a dependency of employees on the tracking technology in the workplaces for self-evaluation and confirmation of their achievement. This thesis illustrated how this can be exploited for corporate interest and increase the pressure on employees to reach high rankings to prove themselves and secure their occupation. In the third chapter, it was shown that employees additionally experience epistemic injustices that are strengthened through the lack of transparency through simplifying the work documentation and organisation, leading to opaque decision-making processes by employers and management. In worst-case scenarios, this injustice and the power dynamics at workplaces leave the employee in a position where they are stripped of their autonomy and pushed to follow the demands of the tracking technology without a reasonable foundation to question decisions based on the productivity-tracking technology metrics. It has been shown that the technology that enforces nudging dynamics would need transparency to be less manipulative and de-autonomist towards the employees. It is essential to include identity, autonomy, and the impact of epistemic aspects in the discussion of workplace surveillance. In Chapter 3, it was pointed out how the lack of transparency and power dynamics lead to epistemic injustice that manifests in a significant impact through the relation of employees' identities to the information. Different organisational structures are needed to mitigate the negative effects on the employees and the workplace's social relations that are often characterised by mistrust, hostility and fear. Likely, there will always be a hierarchical structure in a workplace environment. However, as explored in Chapter 3, organisations need to move away from the reductionist view like neo-Taylorism and develop a human-centred way of management to mitigate the disruptive effects of workplace surveillance on employees. In this thesis, humanistic management has been introduced as a guide to a corporate environment that would support individual employees as autonomous beings and promote a sense of community that enables transparency and open communication. I showed that the focus here needs to be accountability of employees and managers, transparency in decision-making processes and intentions, and creating a workplace that enables co-creation of the workplace. Humanistic management involves companies

moving towards human-oriented management that allows the individual employee to find self-actualisation and fulfilment at work without being overly pressured by the imperative of productivity-tracking technologies' demands. I contend that it is unhealthy to use these technologies without sufficient mechanisms of controlling employers and higher management to avoid exploitation.

The scope of this thesis did not allow for an empirical study, which made it necessary to rely on studies conducted by Bronowicka and colleagues (2020) as well as Abraham and others (2019) who focused on employees' acceptance of monitoring technology at workplaces and their perceptions of surveillance at work and its effect on them and the environment. The studies and reports referred to in this thesis focus on workplaces in Poland, Germany and the United States of America; thereby, it must be acknowledged that this work includes predominantly cultural backgrounds in the so-called Western Society. Perceptions of work and surveillance may differ depending on culture and country, including residence.

During the literature research, empirical evidence on the relation between employees' identity and received information in the form of feedback from monitoring applications and the dependency of employees on the tracking technology in the workplaces for self-evaluation and confirmation of their achievement could not be found. This led to parts of the analysis relying on thought experiments and assumptions based on the theoretical discussion in academia. Employees' voices concerning this aspect would be valuable to hear; this lack of empirical evidence calls for future research. Additionally, a case study about the effect of the human management approach in the workplace surveillance context would be enriching to test this framework empirically.

Workplace surveillance technologies which are intrusive to an extent that will harm employees should not be normalised but need to be evaluated constantly, controlled, and limited. Therefore, more regulations are needed to protect employees' autonomy and identity formation. In countries where worker unions are established, these institutions may present a helpful infrastructure to educate about workplace surveillance's harms in environments with strong power dynamics and demand employee protection through the law. External instances outside companies are needed to support employees' rights to avoid conflicts of interest. Regulations on workplace surveillance technologies need to include the impact of information on identity and its comprehensive effect on the employees' capabilities. The difficulty here is that technologies in workplace surveillance are constantly changing and include different levels of intrusion and measuring methods. For example, concerns have been raised about emotional AI being introduced into workplace surveillance technology, causing harm to employees by deeply violating their personal rights, including their right to emotional privacy, which raises policy and research questions (Rommich et al., 2023). A correspondent framework should be developed to assess the harm to employees that potentially comes from workplace surveillance and be flexible enough to include emerging technologies but also specific enough to integrate, for instance, the impact it would

have on employees' self-understanding and identity. When discussing regulations on workplace surveillance technologies, it is crucial to recognise that the area of influence of surveillance technology on work and workplaces exceeds employer-employee relationships. Surveillance technologies in the workplace are embedded in the labour market's political and socioeconomic dynamics that influence its impact and related practice. Hence, dialogue and collaborations across disciplines and outside the workplace are necessary. This includes, for instance, ongoing communication between worker representatives, data scientists, ethicists, computer scientists and economy representatives. Revising training and education programs on handling workplace monitoring is essential to maintain updated emerging technologies and to promote human-oriented work.

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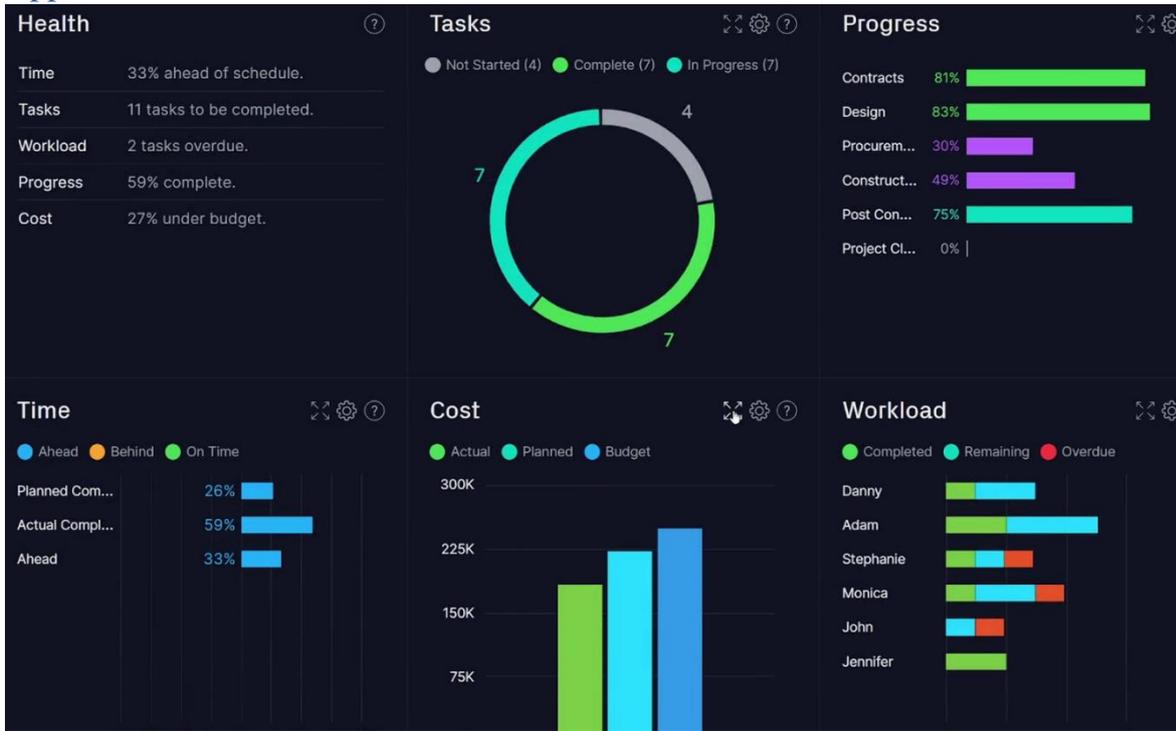
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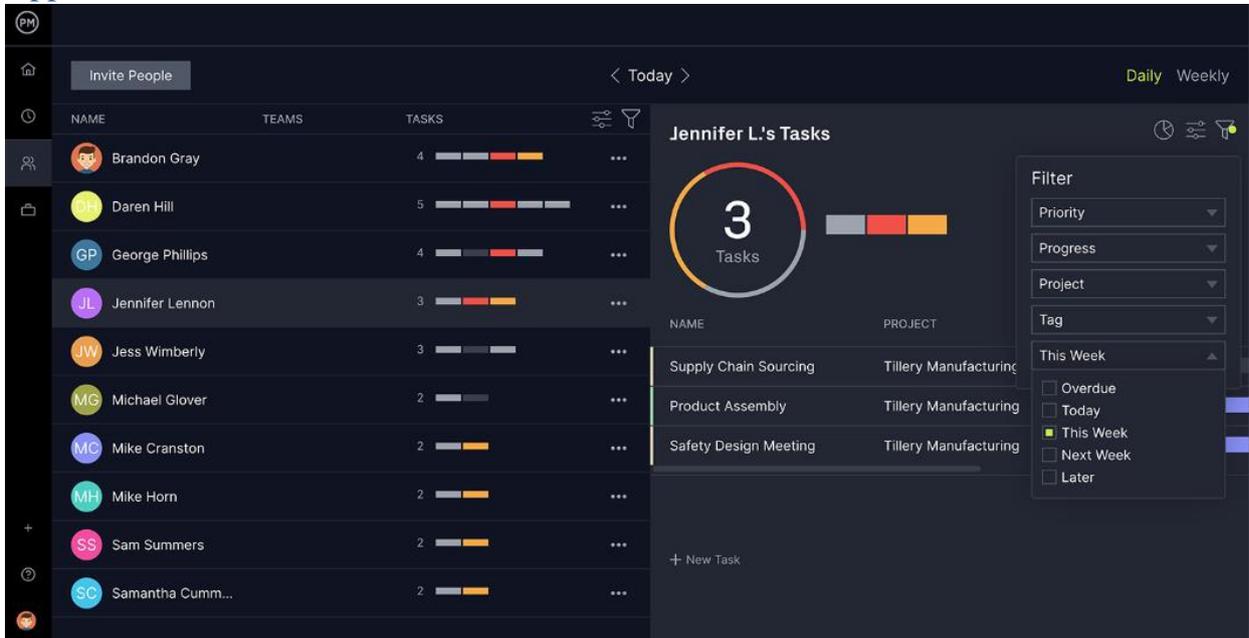
Appendix

Appendix A:

(Source: ProjectManager, 2023b)

Appendix B:

(Source: ProjectManager, 2023b)

Appendix C:

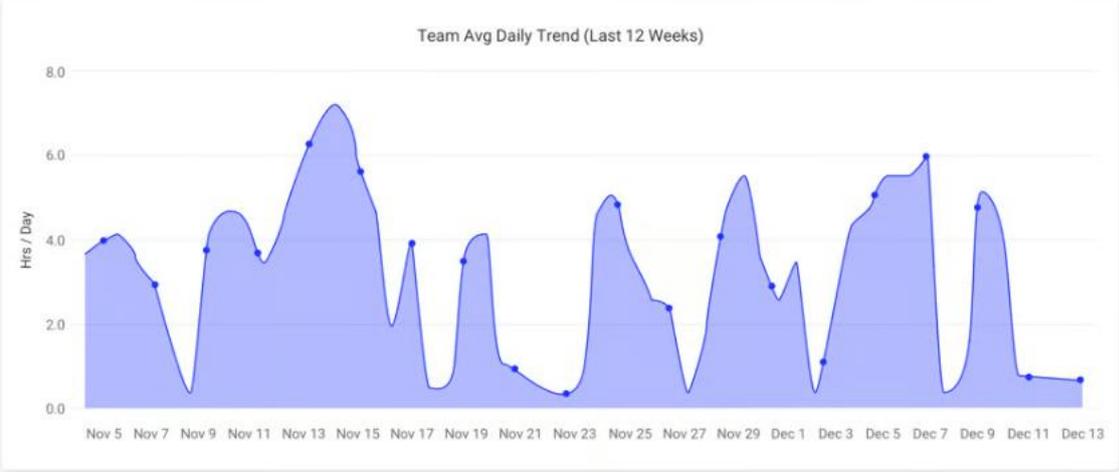(Source: ActivTrak, 2023)

Appendix D:

(Source: ActivTrak, 2023)

Appendix E:

(Source: ActivTrak, 2023)