The organization of ignorance: An ethnographic study of the production of subjects and objects in an artificial intelligence project

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abstract

This article is a study of the role of organization of ignorance in an artificial intelligence project in a municipality in Denmark. It raises the issue of how to understand the process through which a seemingly ordinary project involving the development of an algorithm for decision support turns into a fantastical, creative reimagining of subjects and objects through the organization of ignorance. Unlike many ignorance studies, we do not examine ignorance and knowledge through the lens of intentionality or strategic interest. We instead adopt a distinct Deleuzian perspective on ignorance based on the idea of the ´will to ignorance´ as productive force that forms subjects and objects of ignorance. By observing the project management team over time, the article shows how it transforms a mundane task into an imaginative quest through the will to ignorance. The findings contribute not only empirically to the understanding of ignorance in organizations but also show the utility of adopting a non-intentional perspective in this kind of study.

Introduction

This article explores organization of ignorance in a public administration artificial intelligence (AI) project by examining the initial stage of the

project in the employment administration of a Danish municipality (Government of Denmark, 2019). The use of AI in public administration – especially for decision support – is a new phenomenon. Although practical experience, and therefore empirical knowledge is sparce, the field is awash with optimism about the contributions AI can make to management, innovation and efficiency in the field (see Sun & Medaglia (2019) for a review of the debate).

The article is an ethnographic study of the organization of ignorance in relation to algorithms and how subjects and objects of ignorance are created in this context, both of which are examined in that various studies have pointed out that ignorance not only involves ignorant subjects but also relates to objects of ignorance (Bucher, 2018; Burrell, 2016; Christin, 2020; Lange, 2016; Lange et al., 2019). Algorithms are paradigmatic objects of ignorance in that they are based on mysterious knowledge that creates black boxes, where nobody knows how they turn input into output (MacKenzie, 2005; Pasquale, 2015). Thus, organization of ignorance emerges in an organization that constructs knowledge about algorithms, for which there is no knowledge due to their very nature (Lange et al., 2019: 603). Since researchers (Pencheva et al., 2020; Sun & Medaglia, 2019) call for additional empirical data, we study the organization of ignorance in terms of algorithms as objects of ignorance as well as the subjects of ignorance associated with their development. Existing studies of organizational ignorance and algorithms (e.g. Lange, 2016; Lange et al., 2019) generally focus on the organizational setting in which algorithms are established as objects and where practices of organizational ignorance and knowledge are solidified, but we focus on examining the formation of structures of ignorance and knowledge in public administration, a hitherto unexplored area.

Our contribution is analytical insight into an uncharted empirical area involving organizational ignorance. Drawing on Deleuze's (1993; 2005; 2006) philosophical ideas, our analytical perspective on the organization of ignorance goes beyond the conceptualisation of organizational ignorance as performed strategically by individuals.

This perspective allows us to show empirically that managers construct a social organization of ignorance during workshops for the AI project that can only be actualised if they change their perspective on what the subjects of casework and employed people are capable of and willing to do, but also what the object of the AI project comprises. When confronted with reality, rather than admitting that they created an impossible world that can never be realised, they establish a fantasy world removed from the realities of technology, organization and law. The managers construe and change the notions of subjects and objects to refrain from obliterating their fabricated world, where the unemployed are expected to willingly share private social media data with the employment office, and non-Danish speakers are expected to adeptly use an app available in Danish only. The object changes from originally being conceived as algorithms and machine learning to become an app-based solution for caseworkers and the unemployed. From an analytical perspective, the illusion can only continue to exist if the managers persist in constructing the subjects and objects in the same way they did initially. Our point is not that the subjects are ignorant or do not have knowledge about objects of ignorance, i.e. in the form of algorithms, but that the subjects and objects of ignorance can only be actualised in their interrelationship, constituted by and in a social organization of ignorance. During workshops members of the project produce a social organization of ignorance in which the subjects of caseworkers, the unemployed and the object of the app-based solution must conform to a certain way of being for this organization to be actualized.

The remainder of the article is divided up as follows. First, we present the AI project in a Danish municipality that is under study. Second, after reviewing the literature on organizational ignorance, we introduce our Deleuzian approach to organizational ignorance and its analytical implications. Next, we describe the empirical methods used to collect and systemise our data. After that, we conduct an analysis of how the will to ignorance produces subjects and objects of ignorance. Finally, we discuss the creation of the social organization of ignorance.

The production of organization of ignorance

The literature on organizational ignorance has made a strong case for the necessity of not only managing knowledge but also managing ignorance (Zack, 1999; Roberts, 2013). In a recent article Bakken and Wiik emphasised that: 'We study "knowledge management" but rarely "ignorance management", although surely we manage our ignorance just as much as we manage our knowledge' (2018: 1110). From a knowledge management perspective, the unknown, in the form of uncertainty, complexity, ambiguity and equivocality should be alleviated (Zack, 1999). However, other authors argue that organizational ignorance should be studied on its own and not simple in negative opposition to knowledge as a lack of knowledge (Roberts, 2013: 216; Harvey et al., 2001; Mair et al., 2012; McGoey, 2007, 2012a; Roberts & Armitage, 2008; Schwarzkopf, 2019; Vitebsky, 1993). Instead, ignorance is seen as a positive product of knowledge (Bojesen, 2019; Franke, 2015; McGoey, 2007; 2012b; 2019; Schwarzkopf, 2019; Teasdale & Dey, 2019). This subjective perspective on organizational ignorance argues that intentional will can involve purposely being willing to ignore knowledge (Bakken & Wiik, 2017; McGoey, 2007; Schaefer, 2019). Subjects such as individual people and organizations can have an interest in decoupling, denying and being inattentive of knowledge (Essen et al., 2021).

Organizational ignorance studies often refer to Nietzsche's concept of will to ignorance (e.g. Bakken & Wiik, 2018; Davies & McGoey, 2012; McGoey, 2007; Schaefer, 2019), arguing that will to ignorance is not in opposition to knowledge but a refinement of knowledge (McGoey, 2007; Davies & McGoey, 2012) because it goes beyond the passive mode of not knowing to show that active mode of unknowing exists, i.e. an active refusal to know (Teasdale & Dey, 2019: 329; Bojesen, 2019). Hence, the difference between being active and passive is intentionality; we are active if we purposefully want to be ignorant (Teasdale & Dey, 2019: 329). Subjects such as individual people and organizations can consciously decide to be ignorant. The object of ignorance is a structure of non-knowledge that does not exist outside the subject's consciousness. This intentional form of ignorance has been coined strategic ignorance (McGoey, 2007) and wilful managerial ignorance (Schaefer, 2019). Various studies focus on the strategic or political aspect of ignorance to show that when individuals create ignorance they do so intentionally (Davies

& McGoey, 2012; Knudsen, 2011; McGoey, 2007; Proctor & Schiebinger, 2008). In this sense we are knowledgeable about being ignorant, or as McGoey bluntly states: 'Ignorance *is* knowledge' (2012a: 4). Hence, this take on ignorance resembles Socrates' understanding of wisdom as being knowledgeable about what one does not know (Chia & Holt, 2007; Davies & McGoey, 2012: 79; McGoey, 2012a: 3).

A growing number of studies focus on how algorithmic objects form structures of ignorance (Bucher, 2018; Burrell, 2016; Christin, 2020; Lange, 2016; Lange et al., 2019), pointing out that ignorance not only involves ignorant subjects but also relates to objects of ignorance. Lange et al. write that: 'ignorance is a defining feature of algorithmic practices, a challenge all practitioners are constantly reckoning with' (2019: 603). Algorithms are based on mysterious knowledge that creates black boxes, where we do not know how to transform our input into an output (MacKenzie, 2005; Pasquale, 2015). Algorithms produce black boxes for users and makers of algorithms who do not know exactly what the underlying process is for producing a specific decision or recommendation (Bucher, 2018; Burrell, 2016; Christin, 2020; Lange, 2016; Lange et al., 2019). It is argued that the opaque nature of algorithms forms structures of social organization of ignorance because algorithms are a common object of desire (Lange, 2016; Lange et al., 2019). The organization of ignorance as structures emerges based on how the members of the organization construct knowledge about algorithms that they do not possess knowledge about because of the nature of algorithms, where 'ignorance is a defining feature of algorithmic practice' (Lange et al., 2019: 603). Lange et al. (2019: 604) suggest studying the organization of ignorance from the theoretical perspective of actor network theory, and especially Serres (1982), to shift focus from the static structural being of ignorance to the dynamic relationship between ignorant subjects (e.g. employees and managers) and the structural objects they ignore (e.g. algorithms). From this perspective algorithms are quasi-objects that join the social organization together because everyone engaging with them, but as quasi-subjects of ignorance, they cannot grasp or control them. Hence, Lange et. (2019: 605) argue that the social organization resembles the dance between subjects and objects.

Deleuze and the will to ignorance

Answering the call to study the practice and social organization surrounding algorithms as objects of ignorance, we draw on Deleuze (1993; 2005; 2006). His philosophical ideas have been utilised to a great extent within organization studies (Kristensen et al., 2014; Linstead & Thanem, 2007) but have only played a minor role in the study of organizational ignorance to date, with the notable exception of McGoey (2007: 221), who briefly discusses Deleuze's philosophy in relation to Foucault.

The Deleuzian conceptualisation of organizational ignorance differs from the intentional understanding of organizational ignorance that aims to describe how subjects become ignorant (e.g., Davies & McGoey, 2012; Essén et al., 2022; McGoey, 2007; 2012a; 2012b; Schaefer, 2019) and the understanding of ignorance as structures of not knowing (e.g., Bucher, 2018; Burrell, 2016; Christin, 2020; Lange, 2016; Lange et al., 2019; MacKenzie, 2005; McGoey, 2012a; Pasquale, 2015). These perspectives focus on why subjects are ignorant and the creation of structural objects of not knowing but, based on a Deleuzian perspective, we suggest that the organization of ignorance can be understood as a pre-subjective will to ignorance that produces subject and objects.

Our proposal draws on Deleuze's understanding of Nietzsche's *The will to power* and his critique of intentionality (Deleuze, 2005; 2006; see also Robinson, 2010: 126). Deleuze writes:

> Will to power does not mean that the will wants power. Will to power does not imply any anthropomorphism in its origin, signification or essence. Will to power must be interpreted in a completely different way: power is the one that wills in the will. Power is the genetic and differential element in the will. This is why the will is essentially creative. This is also why power is never measured against representation: it is never represented, it is not even interpreted or evaluated, it is 'the one that' interprets, 'the one that' evaluates, 'the one that' wills. (2005: 85)

For Deleuze, will to power does not mean that someone wants power; it should not be interpreted as a theoretical concept about human agency or drivers (Hatab, 2019: 329). We draw on Deleuze's understanding of will to power to make sense of the organization of ignorance in which the subject is

not ignorant, and the structural objects do not create ignorance. Rather than suggesting that subjects and objects are ignorant, we suggest that there is a pre-subjective force of ignorance that creates subjects and objects as knowledgeable and wilful.

This understanding of organizational ignorance as pre-subjective will to ignorance has two important theoretical and methodological implications for our analysis. First, when we make sense of the organization of ignorance, we should pay attention to how the subjects are produced by will to ignorance, and how the organization of ignorance is constituted in and expressed by the subjects and objects. The will to ignorance exists not only inside the subjects and objects that it produces; it is always part of the ways of being a subject, or expressed by subjects (Katsafanas, 2012: 9). The subjects of ignorance are not being ignorant; they are the product of the organization of ignorance. Our analysis will show how managers change their interpretation during workshops of what knowledge caseworkers and the unemployed should possess and be willing to do. This implies that we will not describe what causes organizational ignorance as a matter of individual intentionality (organizational, group or person) in the form of, e.g. decoupling, denial, inattentiveness (Essén et al., 2022), wilful avoidance of discomforting information (Schaefer, 2019) or purposeful tactics (McGoey, 2007). Moreover, we will not discuss that the black boxes of algorithms are negative 'structures of not knowing' that can be of strategic value because they obscure valuable knowledge (Lange et al., 2019: 604). In this sense we do not wish to describe the depth of ignorance and how it is produced by something else besides ignorance, for instance intentionality in the form of decoupling, denial or inattentiveness, or structures of not knowing. Instead, our aim is to describe the surface of ignorance (subjects and objects) and how it is produced by the organization of ignorance that only exists inside its subjects and objects. The organization of ignorance forms a world that can be actualised in the subjects of caseworkers and the unemployed.

As there is no shared identity between the knower and the ignoramus when the subjective will is not produced by the subject itself, the methodological implication is that we cannot simply ask the mangers to explain their acts of ignorance. To explain how organizational ignorance is produced, we will

show how the will to ignorance produces subjects and objects that make it necessary for them to have a certain will or knowledge to make it possible to actualise the organization of ignorance.

For example, if unemployed people are not motivated and do not freely want to share private social media data with the local public employment office, the app-based solution cannot work and the imaginary world that managers produced at workshops will not be actualised. To show how social organization of ignorance is created we will describe how the AI project's team members discursively talk about the expectations concerning what the caseworkers and unemployed people should be willing and able.

Second, the will to power implies that 'facts is precisely what there is not, only interpretations' (Nietzsche, 1968: 267). When we talk about organization of ignorance it should be understood as the managers various interpretations of the AI project in workshops. According to Hatab (2019: 343), Nietzsche's point is that 'there is simply no single, absolute or unconditional truth'. However, this does not simply imply that anything goes, or that the managers can say whatever they would like to about the AI project, the caseworkers or unemployed. Instead, the will to ignorance limits what can meaningfully be said about the objects and subjects. This limitation does occur in relation to what is true or false, but in relation to what can be expressed sensibly in relation to the subjects and objects they create.

One methodological implication is that we will do more than describe organizational ignorance as simply ignorance of truth in our analysis. There is no true knowledge behind ignorance. The subjects and objects of ignorance are not related to the (mis)representation of knowledge, but to the possible interpretations that can be ascribed to it. Hence, our analysis will describe the valuation upon which project members condition their reasoning in establishing a common point of view on the AI project. Which interpretation of the project do project participants believed to be more valuable than others? Our aim is not to secure knowledge by demarcating and pointing out ignorance, as we cannot do so by arguing what is true and false. Rather than studying knowledge we will focus on meaning and the valuation that can be located in the managers' expression of meaning.

Whereas knowledge is in opposition to ignorance and can be limited by ignorance, will to ignorance inherent in expressions of meaning is not. The more ignorant the managers become the more meaning they produce.

We analysis the surplus of meaning the managers express in the workshops and how these interpretations can be regarded as an organization of ignorance. As such, in accordance with Deleuze, the goal is to understand will to ignorance as the force in us that makes us *want to be* ignorant. This means that we are interested in the interpretative forces of ignorance that make us value something and consider other people's expression as meaningful. Hence, it is important to understand how ignorance is conditional and how it is constituted in subjects and objects (Deleuze, 2005: 1). Project members ask, for example: What kind of "knowledge" can machine learning create? To answer this question about the object, they ignore several possible constraints, like what is technologically possible to do with algorithms, the budget and legal issues. However, it is important to know how this is an expression of will to ignorance in and by the managers and how these expressions change the condition of the subjects and objects in the AI project.

Methods

Our research began in early 2020 when the AI project commenced, which means we have followed the project from its beginning and have had ongoing access to all material that the external consultants produced as part of their own data collection during the initial phase. This article is based on empirical data collected during the entire initial phase of the project (January - December 2020). For the initial phase of the project, the municipality had established a team comprising six managers from the municipal administration who were designated strategic decisionmakers, four of whom were high-level managers and two low-level who managed caseworkers directly. The workshops make up the main empirical foundation of our study. Guided by an external consulting firm, the project manager organized the initial phase, which comprised six workshops lasting two and a half hours each. In addition to the team, two external consultants and the project manager attended the workshops. Due to COVID-19 lockdowns, all

six workshops were held online, which we attended, but unlike other participants our cameras were not turned on.

Our primary research method is thus observational studies (Angrosino and Rosenberg, 2011). Since we were interested in documenting and interpreting the statements and actions of the workshop participants as curious observers without direct interference in their discussions, our approach was more classical observation rather than participant observation (Adler & Adler, 1994; Angrosino and Rosenberg, 2011). The pandemic gave us the opportunity to embrace a non-participatory observational technique to a remarkable degree. The online nature of the meetings allowed us to remove ourselves completely from involvement in the workshop and to collect data by seeing and listening without being seen and heard, though participants were informed that they were being observed by us. In an attempt to further minimise potential bias or behavioural influences that might result from engaging with the workshop team, our cameras and microphones were turned off and we did not record the workshops as per our agreement with the participants.

Since nothing was being recorded our note-taking techniques were crucial. It is typically recommended that notes be taken as observations are carried out, that they are detailed and that they separate descriptions from researcher assessments (Emerson et al., 1995). Inspired by Eriksson and Kovalainen (2008: 148) we operated with two distinct types of notes: descriptive and analytical. In the descriptive notes, we tried to record what took place and what was said with as much detail as possible, preferably using direct quotes. We noted the reactions of the participants, such as laughter and facial expressions. These notes on reactions were useful in our interpretations, for example when managers laughed at critical depictions of jobseekers and employees. In the analytical notes, we jotted down reflections in the moment and any incongruences in the descriptive notes, for example, noting when managers displayed awareness of the limitations due to administrative law and then ignored them in the next sentence. Two observers were at most workshops and independently observed and took notes. After each workshop, we compared notes and complied them into one set of observation notes. Quotes in the following from workshop notes have been translated from Danish by the authors. Written material such as project

descriptions, consultant reports, power point presentations and so forth in Danish have also been translated from Danish to English by the authors. The name of the municipality and the identity of the participants have been anonymized and given generic names in quotes where it is needed for readability. Likewise, material from the project when quoted is from internal documents and reports of the municipalities and the consultants – to preserve anonymity these are referenced in broad terms.

Analysis

The project we examine stems from Denmark's national AI policy, adopted in 2019 (Government of Denmark, 2019), which included signature projects designed to explicitly use experimentation to determine the benefits and challenges associated with public sector use of AI. The central government set the objectives of the projects, which primarily focused on creating knowledge through experimentation, rather than algorithms specifically developed to improve quality or capacity (Government of Denmark, 2019). The specific project we examine is entitled 'Artificial intelligence for targeted employment efforts', the goal of which was to develop a machine-learning algorithm to support caseworkers in making individualised decisions about employment efforts. The term employment efforts covers the activities and interventions that local authorities initiate to increase the chance that the unemployed find employment, for example by mandating participation in courses or by arranging internships. The municipality is legally obligated to tailor interventions to the individual jobseeker receiving unemployment benefits.

The aim of the following analysis, which is divided into three sections, is to show how the managers in the workshops establish a common understanding of the AI project and decide upon its content. First, we show how the managers shift the original purpose of the project. Second, we demonstrate how they reconceptualise the problem by blaming subjects – the caseworkers and the unemployed. Third, we show how the managers create a new object – AI – by shifting the purpose and blaming the employees. Finally, the concluding discussion reveals how these new understandings of subjects and objects are imaginary and not realisable.

Shifting the purpose

While observing the workshops, we soon realised that the lack of knowledge on algorithms in the project group left their purpose and content open to interpretation. Originally, the objective of the AI project was to develop a machine learning algorithm that could present data or predictions to caseworkers to support their decisions about employment-enhancing activities. Although the initial stage was designed to explore which needs caseworkers had that an algorithm could address, organizational ignorance guided the process toward a different goal: the creation of a comprehensive multi-modular app for the unemployed rather than caseworkers.

According to the project description, the goal was to develop a machine-learning algorithm to support and guide caseworkers in making individualised decisions about employment efforts:

> Phase 1 of "Targeted employment efforts through artificial intelligence" is a collaborative effort between the employment and social administration of the municipal government, the consultancy and the IT company. Together we will describe what an artificial intelligence algorithm must be able to do and how the practices of the case-workers and residents need to be developed to create effective and individualised solutions that aid individuals in finding the right job or education more quickly. (Internal municipal project report, October 2020)

At the first workshop, however, the external consultant alters the purpose of the project:

> The goal today is strategic framing and not solutions. We need to focus on which problems we or the AI must solve. AI is a means, but what should it solve? (Observation notes 2020)

By reframing the purpose from means to ends, he shifts it from gaining experience with AI by developing and testing a machine learning algorithm to problems currently unknown to the management team. Before the workshop, the AI project's purpose was relatively clearly decided upon but, by stating that AI is a means and not the purpose, the consultant turns the AI project into an undetermined entity with the potential to become anything. At this point, it is now up in the air what the AI project is because the consultant altered the intentional relationship between the content of

the AI project, a machine learning algorithm, and the aim of gaining AI experience.

The consultant then shows a PowerPoint presentation stating the project's problem

> Problem: It takes longer than necessary for today's employment efforts to help unemployed people get a job or education! (Power point presentation at workshop 2020)

The consultant simply is arguably ignorant of the original purpose of the AI project, but there is more than meets the eye. The consultant may appear to be simply restating the original purpose, but the real issue is the fundamental shift occurring in the purpose and objectives of the project. Recall that the original purpose was to experiment with machine learning based on a recognition of the underlying ignorance about the ability of machine learning algorithms to solve problems in the public sector. The tool is the basis for the question but the consultant begins by defining a much larger issue: How do we solve unnecessary unemployment? which is basically the current employment policy's mission statement. This starting point entails a much more expansive diagnosis and scope that go beyond a single-purpose algorithm; it now encompasses everything the organization does. As a result, the managers move towards a much more visionary and transformative project: the creation of an object to solve this fundamental problem for their organization, which the managers begin to refer to as the AI.

Blaming the subjects

Having established the problem to be solved, the discussion turns to the issue of unemployment, which the managers embrace, unanimously agreeing that the organization lacks knowledge in this regard. A manager describes the issue by asking: When, how and why do unemployed people find employment? The managers declare that they are ignorant and unable to answer these questions, even on a descriptive level. A manager named Alice explains:

> Every month an unemployment number is published but are we static, higher or lower? When we need to find an explanation of these statistics, we don't

know why, for example there are so many unemployed graduates one month and then not the next. We simply don't know. It's fine that it takes some people a long time to find a job, if there's a reason for it. But we don't know that reason when we write our monthly process descriptions. (Observation notes 2020 notes)

To explain why the organization has not yet succeeded in solving the problem, the consultant presents a five-part causal hypothesis addressing solely caseworkers, who:

1. Find it difficult to identify factors that prevent people from getting a job because they vary from person to person.

2. Find it challenging to identify particularly relevant opportunities for individual people because gaining an overview of what will help each person is difficult.

3. Do not have the opportunity to apply a knowledge/evidence-based approach, which means they do not possess objective knowledge on what demonstrably helps people best.

4. Cannot propose initiatives they are unfamiliar with because their advice is based on their own experience.

5. Do not engage in knowledge sharing, preventing successful practices from being shared with their peers. (Power Point presentation at workshop 2020)

In the framework of the first workshop the external consultant thus shapes its initial phase by directing his causal hypotheses towards the inadequacies caseworkers experience. This displaces the focus from the problem to its causes or, more precisely, to what he claims are the causes in the organization. He moves the problem from managers claiming ignorance and powerlessness in terms of the social organization to what they control, reclaiming both knowledge and power. This requires the managers to ignore their earlier claims of ignorance about the causes of unemployment and to accept the consultant's assessment, which pushes the project in a new direction, where the caseworkers' current knowledge and motives are problematic and must change.

Empowered, the managers describe the numerous faults and inadequacies that challenge the ability of their staff to help people get a job. For example,

they do not work in a sufficiently evidence-or data-based manner. While discussing the reasons preventing a reduction in unemployment, a manager named Eva also focuses on the staff:

> It would be nice if the staff would not just do what they do, without understanding why they do it. It would be nice if they didn't do what they do, just because it's the usual way to do it.

> Jack: Is it because the caseworkers thinking rigidly and are unable to think creatively? Or is it because they lack the opportunity? Maybe people do not prepare for meetings because they feel that don't get any advice from the employment office. (Observation notes 2020)

Based on interviews with staff, the consultant presents an illustration of what happens when jobseekers engage with the local public employment office. He explains that staff always employ the same initiatives and interventions. Several statements by managers indicate that a lack of creativity among staff is a challenge.

> Mia: We're trained to believe that the issue is only that people lack a job. That shapes us. But we don't have much space to be creative. We don't have the freedom to be creative [...] You have to be very professional. That's a precondition for being creative. You must have knowledge about what works. If you feel confident professionally, then you can be creative.

> Alice: If I had to have creative employees that thrive by being creative, then I would have to recruit different employees. Some people thrive within set parameters because then they are not the ones who are responsible. So, we have to be conscious about the staff we hire. They weren't hired to be creative. It's not certain that the people we have today can meet this goal. (Observation notes 2020)

Based on the managers assessment, one of the causes of ongoing unnecessary unemployment lies within the employees and their lack of creativity, professionalism and knowledge.

Employment office staff, however, are not solely responsible for the lack of employment; jobseekers also play a large role. The managers, who describe them as irresponsible and fundamentally inactive, state that they do not sufficiently prepare for meetings and are generally unable to find employment. By way of illustration, the consultant recounts an employee's story about an unemployed individual with a bachelor's degree in sports

management who wanted to work as a manager for a professional bicycling team, which is why he did not apply for anything else, which caused laughter among the workshop participants. While the managers laugh, the consultant emphasises the importance of caseworkers keeping their focus on the individual's true needs. He explains that the people might think that they need additional education or new skills. But perhaps they need to learn to get up in the morning, learn to hold down a job or go to the gym. According to the consultant the moral of the story is that people do not know what stops them from getting a job or what their true needs are. Overall, the inability to succeed in finding employment is due to the failings of both the unemployed and employment office staff.

Thus, the problem is redefined again. It is not unemployment as such that is the challenge; it is the employment office staff and the unemployed. The problem is no longer a lack of knowledge but problematic subjects, redefining the purpose of the AI, which is now to compensate for the inadequacies of the subjects.

Creating the object

At the second-to-last workshop the consultant presents his recommendation on what the AI should encompass. What started as a project to test the use of predictive algorithms has now evolved into something else:

> We conceptualise the AI as an app that, 1) requests access to people's Facebook and social media; 2) contains a survey with 150 questions; and 3) provides suggestions for three job postings per day. (Observation notes 2020)

The consultant continues by describing his vision in more detail:

> We conceptualise it as a kind of job Tinder. The AI looks at a resume and makes standardised recommendations for users, for example they watch a video on resumes, or points out that their name is misspelled on their CV. We will also include gamification. It could also have questions like: What is the ideal salary you dream of having? How much leisure time do you dream of having? People will receive a few questions per day and a graph charting how active they have been. This allows us to make it attractive for them. (…) It's a tool people can use. They provide data for the AI, but they can't stop themselves from using it because it's such a good app. Like Google Maps. (…) And the AI will also keep an eye on whether people apply for enough jobs in accordance with the agreements [with the employment office]. The AI will

> also provide caseworkers with an overview over the individual's situation. (Observation notes 2020)

This presentation sparks a creative, animated discussion about the app's features that also creates a relationship between the object they discuss (the AI/app) and the subjects that relate to it (caseworkers and the unemployed). This relationship also leads them to indirectly articulate new subjects. A manager named George, for instance, mentions that many unemployed people are not motivated, prompting him to asks whether the AI can incorporate a coaching feature? The consultant reassures George that this is definitely a possibility. Additional discussion on how a coaching feature would work is not touched upon at all.

When discussing the topic of how the unemployed lack networks, the issue is raised of whether they are unable or unwilling to activate their network in their job search. On this basis, it is argued that the AI requires access to people's Facebook profiles to activate a network they are unable or unwilling to activate. Mia comes up with the idea that, in addition to the extraction of data, the AI could also include a network creation feature, similar to a mentor programme. The consultant, who is accommodating, reassures the managers that the AI can also include this feature and makes a comparison to Alcoholics Anonymous, where former alcoholics act as mentors in the programme. In the same vein, several managers express concern about the ability of illiterate users to use a text-based app. It is claimed that the AI can cope with this by using educational videos on searching for a job and writing a CV. Adding to the discussion, Eva suggests adding a text-to-speech feature. The organisational will to ignorance leads to acceptance and approval of the solutions without anyone raising the incongruency between illiteracy and developing the skills to produce a well-written CV composition – how exactly will a text-to-speech feature or an educational video on CVs solve this issue? Eva also suggests adding a location service to the app to track people's movements in daily life to alert them if they are in proximity of a company with a relevant job available. This idea is met with approval, the consultant again reassuringly saying it is possible. Alice requests a feature capable of screening the national and regional job market for spikes in demand, as was the case when more sanitary workers during the corona crisis. Reassuring as ever, the consultant explains that the data-based nature

of the AI means that this is already a feature, adding that the AI is also able to organise meetings and agendas based on people's profiles. The AI will include qualitative discussion frameworks that suggests topics for meetings between consultants and jobseekers. Finally, the consultant suggests that the AI should analyse people's personalities to make caseworkers aware of any personality-based barriers to employment, allowing interventions to be more suitably tailored.

At this point the sky is the limit in terms of what the AI can solve, not only can it compensate for staff and user inadequacies but also completely change their subjectivities. This impressing potential arises because the AI is more than just a machine learning algorithm. The consultant explains:

> Some of it will just be a system and some of it will be advanced AI. So, it's a system plus AI. The modules will constantly interact with the system, which means caseworkers only need to do two things: they need to add humanity and they need to see the possibilities. The primary function is no longer to ensure that people live up to their legal obligations. The control feature thus becomes superfluous. The AI takes care of that and notifies caseworkers. Consequently, caseworkers can handle difficult, personal and sensitive conversations. For example, suggesting that maybe someone needs to go to the gym – all the difficult stuff. (Observation notes 2020)

Shared organisational ignorance permits the AI to perform all these feats. When surveillance and disciplining are required, the AI steps in. When motivation is needed, it motivates. The AI is regarding people's personalities, needs, past, dreams and their location in space any time. Omniscient, the AI tracks the job market, education system, financial cycles and the intricacies of the law. Carrying out virtually all known employee tasks, the AI now handles what were formerly ostensibly the realm of the caseworkers, leaving them to perform vague, abstract functions, such as adding humanity and seeing the possibilities, whatever that may mean.

At the end of the initial phase, the AI app comprised five distinct modules for the unemployed.

1. *Employment match module*: sends a list of job matches to the unemployed, while an underlying machine learning system collects data to improve the quality of the matches.

2. *Barrier module*: focuses on data to identify specific employment barriers and provides analyses to allow caseworkers to better tailor the emphasis of meetings, as well as schedule meetings based on individual needs.

3. *Learning module*: provides relevant information and knowledge to aid unemployed people in their job search, e.g. video tutorials on writing a CVs and an interview chatbot.

4. *Duty module*: monitors, tracks and provides information about the eligibility requirements for unemployment benefits, e.g. applying for a certain number of jobs within a specific timeframe.

5. *Network module*: links the app to social media platforms, e.g. Facebook and LinkedIn, to enable personalised messaging about job-related activities among contacts to help motivate and provide information, just as social media data is used to train the AI to better customise information.

When the consultant presents the AI at the end of the initial phase, the managers are highly enthusiastic:

> Jack: Two of those, please, preferably tomorrow. And I'm wondering what caseworkers of the future function will do?

> Eva: If it's as amazing as it sounds, it will really be a branding opportunity for our employment office.

> Alice: It's a wonderful new world!

> George: How far should we go? As far as possible! (Observation notes 2020)

Thus, at the end of the process, the AI, now separated from mere machine learning algorithms to be tested for some practical purpose, has become an almost universal problem-solving machine for managers at the local public employment office. No wonder they embrace it so enthusiastically.

Concluding discussion: Creation of the organization of ignorance

The findings of the article are two-pronged. First, in accordance with Deleuze, we clarified and demonstrated the utility of a non-intentional perspective on ignorance in relation to algorithms. Second, we explored the process through which the AI project created possible new understandings of

the object of the project and the subjects who are expected to use the app-based solution.

In clarifying our perspective, we emphasise that it does not reject the other perspectives but makes it possible to analyse and describe a different form of organizational ignorance. Our analysis shows how managers discursively rearrange the conceptualisation of the subjects and object in an AI project. We have illustrated that organizational ignorance can be conceptualised non-intentionally by invoking Deleuze's philosophical ideas. From a Deleuzian perspective, will to ignorance is not intentional but rather produces subjects and objects of ignorance, an idea that expands on Lange et al.'s (2019) suggestion that organizational ignorance is a social production by explaining how this production takes form in subjects and objects. They describe organizational ignorance as the lively, interchanging relationship between the objects of algorithms and subjects of day traders. In their perspective organizational ignorance is understood as a relationship between a black box object of algorithms and non-knowing subjects, who engage in a dynamic dance where who subjects and objects can be discussed, not to mention who is in control. Lange et al. (2019: 607) argue that there are four types of relationships between subjects and objects, or what they call algorithmic personifications. However, rather than focusing on the actual relationship between subjects and objects, we proposed that it is possible to study organizational ignorance in relation to the pre-subjective organization that occurs, as well as how this is actualised in subjects and objects. Hence, our point is not to examine how the meaning of the will and knowledge of subjects and objects is expressed. As such, there is no direct bodily or conscious relationship between subjects and objects, only the one that exists because of the organization of ignorance. As argued, ignorance encompasses not only the refinement of knowledge, but also the production of subjectivity.

Unlike Lange et al.'s objects of ignorance or algorithmic personifications, our object of ignorance exists only within this organization of ignorance because, in our case, there are no subjects who have a direct relationship with the object; they are not embodied because neither subjects nor objects exist. By studying algorithms that do not yet exist, we examine the will to create them and thus the production of subjects and objects, which the

analytical findings reflect. The organisation of ignorance at the workshops created an AI solution capable of achieving what the local public employment office has never been able to do: reduce and perhaps even eliminate unnecessary unemployment. Data-driven and able to scan vast amounts of data, the AI can analyse the unemployed people's personalities and understand their needs. The process imagined a new subjective definition of the unemployed: compliant, motivated and skilled, not to mention able to read and write unhindered in Danish, in possession of a well-developed social network, active at the gym and proactive in their job search. Likewise, an empathetic, creative and data-driven caseworker is imagined who add that special human touch that eludes machines. Caseworkers, able to identify opportunities invisible to jobseekers and the AI, are experts at handling tough conversations and can motivate people to work out if they need to lose weight.

But how does this imagined AI relate to the potential and limitations of machine learning? The original purpose of the whole project was to investigate this, but the process led somewhere else. Rather than clarifying the core issue, the app represents a much larger endeavour beyond the scope of simply developing a single predictive algorithm (Kirkegaard et al., 2021). Although the app includes predictive algorithms, the project does not examine how they work. It presupposes that the issues the project was supposed to investigate were solved but also that the AI knows things about the world and can share its knowledge.

But what kind of knowledge can machine learning create? Inherently opaque, it dispenses with the need for human understanding to reach conclusions. As a result, machines do not create knowledge to act; they abolish the need for knowledge to act. In other words, machine learning algorithms do not know anything. Rather than creating knowledge, they require the embracing of ignorance. Furthermore, during the workshops, various concrete technical and logistical issues were not addressed, e.g., what developing machine learning algorithms requires. Algorithms can only be developed if relevant data exists because any machine learning-based model is limited by the availability of data. Does a dataset even exist that would allow algorithms to predict demand for labour before jobs are even posted? Developing this kind of model and making sure it is functional and

can be maintained in the long run requires the developer, or whoever will maintain it, to have the expertise and a commitment that goes beyond the one-off development of the model. These issues were put off at the workshops, the question of how and where machine learning algorithms can become an integral part of a more focused employment effort is ignored. Since these issues are ignored, the AI is a phantasm that cannot be actualised.

On the one hand, the project's development can be seen as simply resulting from a lack of knowledge among project members. However, on the other, this interpretation can only explain the reason why they did not develop a machine learning algorithm, which was the original objective. Our analysis does not explain why this happens, but rather attempts to show what happened and how this is a product of the organization of ignorance. The lack of knowledge about algorithms allows the workshop participants to imagine that all their dreams and fantasies can be fulfilled. Anything is possible. The participants were asked to dream big. In this sense ignorance represented not only a lack of knowledge but also the production of knowledge about the AI they dreamed of.

The workshop team created a fantastical, multi-modular app for unemployed people, but this is meaningless if the managers cannot transform the subjectivity of their staff and the unemployed. While discussing the AI the workshop team simultaneously created and formed new subjectivities about their staff and the unemployed, endowing them the ability and willingness to use the app, e.g. the latter sharing all personal data on Facebook with the employment office, and the former allowing their professional judgement to be based on data from the app.

As a result, both the object (the AI) and the subjects (caseworkers and unemployed people) are equipped with a willingness to engage, new knowledge and abilities. Like the AI, these caseworkers and employees are a figment of the imagination and stand in opposition to the picture of lazy, stupid and unrealistic jobseekers and uncreative, ignorant caseworkers who represent the basis for the conceptualisation of the AI. During the initial phase of the AI project, a particular organization of ignorance is formed in which the creation of staff and unemployed subjects are made possible in

relation to the creation of the AI object and vice versa. Outside this organization of ignorance, the AI object is de facto technically impossible, the subjects apparently equally so.

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