


The Psychology of Automation and Artificial Intelligence at Work: Exploring Four Fantasies and Their Leadership Implications



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Abstract This chapter discusses the impact of automation and Artificial Intelligence (AI) within the workplace. To understand the psychological impact of technology at work, we describe and analyze four fantasies of robotization and AI. According to these fantasies, AI will replace human employees, technology and AI will save humanity, robotization, and AI will enhance access to resources and therefore address inequalities, and lastly, technology will liberate humanity. Such a fantasy lens to study robotization and AI at work allows for an exploration of technology as ideological, thereby opening up the possibilities for a deeper understanding of the role of technological implementations in contemporary society. Understanding these “fantasies” as rooted in ideology helps to gain a more realistic understanding of the pros and cons of robotization and AI at work. Moreover, we will discuss in depth the policy and leadership implications of these techno-fantasies. We distinguish between what policy makers can do to maintain a balance between optimizing the use of AI while avoiding a blind techno-optimism. We finally argue for a similar balanced approach for leaders in organizations.

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Introduction

Technology, automation, and Artificial Intelligence (AI) have gained considerable interest during the last years among scholars and practitioners in management and organizations. However, until about 10 years ago, the impact of automation on employees and organizations did not seem really worth researching, as not many publications appeared on the topic in academic management and organization journals. Textbooks would have their obligatory chapters on technology, but a strong narrative concerning the relationship between management, psychology, and technology could not truly be articulated yet. Automation could be envisioned as a tool to improve productivity, in line with Fordism, whereby automation was theorized to be a way through which production could be organized more efficiently. This has changed fundamentally over the last decade; automation, and in particular digital technology, has deeply infiltrated societies, AI has started to be seen within our homes and nowadays a life without digital technology cannot be imagined. In fact, there is talk of AI and robots taking over our lives and work, with AI being posed as a possible threat to the future of humanity (Baumann, 2017).

For many years, data used to exist in the periphery of society was deemed of interest only to academics in universities. Conversely, automation is far from locked in universities today: it is all around us. This has been made particularly clear during the COVID-19 global pandemic, when lockdowns forced workers to retreat to an online professional life. Automation is also inherently linked to the great challenges of our time. It is not presumptuous to state that the contemporary human being is faced with (at least) four great (seemingly) unsolvable challenges of the modern world: climate change, social, and racial inequality, global insecurity, and technology (Bal et al., 2023). Climate change disrupts our entire global life, and causes enormous changes to our environment, and global climate migration. Social and racial inequalities have amplified during the last decades, and the perpetuation of racism, xenophobia, and Islamophobia are spreading in our age. Global insecurity is not just a consequence of the former two (climate change causes global migration, which causes global insecurity), but is also a force in itself that destabilizes global functioning of our political, economic, and social systems. Finally, technology is inherently interlinked with these and is a force in itself. The four are inherently connected and it can be observed how public perceptions toward these challenges are correlated, such that people either downplay the severity of any of these or see the interlinkages between the four. Technology may accentuate existing inequalities in the world, for instance, when richer countries can benefit from technologies that will help with combatting climate change, while poorer countries are left without such access.

The question, therefore, is how we can postulate a psychology of automation in the context of organizing, work and management, and how we can offer a unique psychological perspective on technology and automation, and their relationships with climate change, inequalities, global insecurity, and public health. The contemporary interest in automation and AI is spurred by what has been referred to as the

fourth Industrial Revolution. Central to this “revolution” is the idea that change is no longer linear but exponential, and that the introduction of AI will create “smart technologies” and “smart cities” that will ultimately fuel progress and have the potential to eradicate poverty and improve quality of life globally (see, e.g., the World Economic Forum; Schwab, 2016). The use of apostrophes is not without reason, as most of this is primarily rhetoric and both implicitly and explicitly intended to convey a certain picture about the endless possibilities of automation. First, the use of the terms “intelligence” and “smart” carry specific meanings, and they are implicitly contrasted to the outdated world which was “dumb.” The use of smart and intelligence, therefore, has explicit meaning. A similar use can be observed with platforms denoted as “social media.” The use of the term “social” neglects the realities of the companies behind these platforms. It is not simply ironic to witness the rise of the anti-social on “social media” (see, e.g., the rise of extreme right-wing bubbles through social media) and the echo chamber created by the algorithms used by such sites (Pariser, 2012). The profit made through advertising and the trade in personal data on such platforms is somewhat “hidden,” and has little social meaning for the users of the platforms. Since the term social media is now so fully integrated into public discourse, it is no longer questioned whether there is any relationship between the possible meanings of “social” and “social media.” A similar process can be observed with artificial intelligence and smart technologies: the terms are becoming so fully integrated into public discourse that we longer interrogate ourselves on what this ‘intelligence’ or ‘smartness’ is, even though they affect individuals in ideological ways.

Due to the implicitness of such terminology, it makes sense to study the ideological meanings of the terminology and the very object of automation itself. We do so via studying the fantasies behind automation to understand their more implicit implications. Hence, the meaning of “smart” is not the same as “desirable.” To be able to develop some kind of psychological understanding of such questions, it is necessary to investigate the psychology of automation and AI at a deeper level, and the study of fantasies underpinning technology may be useful to accomplish this. We will discuss in the remainder of this chapter three possible views of automation, which we will use to understand four basic fantasies, pertaining to automation and technology. We will end the chapter with a discussion of their implications for both policy making and leadership in organizations.

Three Views of Automation

Perceptions of automation, science-based or not, can be usually subdivided into three views. First, there is techno-optimism, which holds an essentially positive view about technology and its promise for humanity and organizations. It argues that technology and automation are key to what it is to be human, and therefore merely “natural” phenomena. Since humans started using tools to prepare food and to shape their world, technology has influenced human lives and the world.

Therefore, technology and tools are integral to human existence, and it is not surprising to see museums of ancient times filled with (early) technological objects: this is how humanity is defined, and how humankind has shaped itself over the course of history. However, as the fourth Industrial Revolution denotes exponential rather than linear change, human beings are told to be even more adaptive than ever before. In delivering the required skills change, education needs to be upfront in relation to technology, and children and students should be educated to prepare accordingly to be the flexible human beings needed in the contemporary workplace (especially after the COVID-19 pandemic).

For those who miss out, a basic income system can be developed, ensuring a minimum income for those individuals who cannot adapt to technological change, thus providing them with a survival chance. Yet, technology according to techno-optimism has the potential to save the world and solve seemingly unsolvable problems, such as poverty (see Schwab, 2016). Techno-optimism prevails where political-economic-social structures are denied in terms of their importance in defining our contemporary predicament, while emphasizing the promise of technology in addressing all the major challenges in our world (e.g., poverty, climate change, or inequality).

Second, techno-critique points to the political-economic questions around automation and technology (see, e.g., Zuboff, 2019). Automation and technology influence workplaces and human lives, and the distribution of the rewards and costs of technology (e.g., loss of jobs) concerns a political question, one that has not really been addressed sufficiently, but which is now upfront on the political agendas, with the rising influence of companies such as Google and Meta over human lives and political processes. Tech companies such as these are also able to accumulate billions of profits at the expense of populations across the world. Moreover, they have become so powerful that their power extends beyond those of individual nation-states, which have become utterly powerless in terms of their ability to influence/regulate the sector. Therefore, it is only through joint action of countries that tech companies can be regulated. For instance, the European Union tries to control tech companies, with differing success, but the 1.8 billion euro fine the EU is charging Apple for abusing its monopoly (BBC, 2024), aligns with the more techno-critical perspective. Hence, techno-critique maintains that inequalities are actually enhanced through technology, and that technology amplifies poverty across society.

Thirdly, techno-critique points to the privacy issues with contemporary technology. Individual integrity and privacy are not just under pressure but have been eroded completely. It is not just that all aspects of human lives are now public, and that privacy has no real meaning, but it is the uncontrollable nature of loss of privacy that threatens individual well-being: anything that forms part of one's personal history may come back one to haunt the person's standing. The understanding that everything in human lives (actions, location, relationships, secret desires and fears, and so on) is potentially public is now well-understood, but that people do not know when it may be revealed is the frightening aspect. It may haunt people, but for the moment being, merely lurks in the background of their conscience, waiting for the moment to expose the truth as it really is. This is something that is of particular

concern for those children who are now becoming adults and have had their full lives recorded by their parents through digital technology without their explicit consent but which are now faced within a persuasive and permanent record which follows them throughout their lives.

Moreover, with AI, and the possibility of creating fake online reality, the blurring line between what was “real” and what was fabricated through AI makes anything online suspicious and untrustworthy. Hence, even though a person may not have anything to hide (i.e., which concerns the usual argument for giving up one’s privacy), AI can fabricate deepfakes that create a (simulated) reality beyond a reality, without any certainty or guidance for future lives. The rise of deepfakes will take away the non-existing boundary between what is “authentic” and what is fabricated, and in the near future, there will be no more guidelines for human reason to have any understanding between the realness of physical and digital existence. However, as a test of the saying to “set a thief to catch a thief,” the use of AI to generate watermarks to protect against deep fakes is now being investigated.

Thirdly, there is the voice of reason, which (too) often coincides with political liberal–democratic views. These views take into account both optimism and critique and are aware that technology is neither good nor bad, and that arguments on both sides make sense. The voice of reason often is that of a white, highly educated, man, like Harari (2015), Pinker (2019), or Bostrom (2017), and stems directly from Enlightenment thinking. The voice of reason will point to science, reason, and rationality, and the fact that there is almost no “hard” scientific evidence for the critical perspective on technology (see, e.g., de Correspondent, 2019, a Dutch “voice of reason” media outlet emphasizing that ultimately technology helps humanity). Such voices of reason like ideas such as the basic income, which is intricately intertwined with technology. The argument for a basic income when technology has made human jobs redundant can be safely made. On the one hand, promoting the idea of a basic income is reasonable and liberal, as it shows that there is concern for the losers and victims of technology. On the other hand, it is a safe bet, as it is unlikely that a truly universal basic income will ever be realized, and therefore it remains an eternal promise rather than an actual practice (a point also made by philosopher Slavoj Žižek). For the voice of reason, ultimately science prevails, and therefore hard facts and scientific evidence matter. Yet, at the same time, facts do not matter when it comes to the future, as facts and scientific evidence hardly predict the past, let alone that anything meaningful can be stated about the future (Bal et al., 2024). Hence, it makes sense to delve a bit deeper and study the fantasies that underpin the views present about technology. We have identified four main fantasies in relation to technology. These four fantasies underpin the notions of the three different views on technology and elucidate the ways through which dominant perspectives in society about technology emerge.

Fantasy #1: Robots and AI Replace Humans at Work

Perhaps the most discussed fantasy about technology and work is the one about robots and AI replacing human workers. The belief entails that through automation, an increasing number of jobs will disappear as people's work will simply become redundant when taken over by robots and AI. There is a strong intuitive logic to this: many jobs that existed 100 or 50 years ago, such as clerks, no longer exist as a result of automation. Moreover, many accounting jobs of today will be gone in the near future when financial tasks become automated and computing power allows the analysis of big data sets, which could not be handled by human brains alone. However, Graeber (2018) convincingly brought to the fore the argument that it is especially capitalism that is able to endlessly create jobs, which constitutes one of those paradoxes inherent to capitalism. Graeber (2018) talks about bullshit jobs, as many jobs have little intrinsic meaning and are merely the result of a tendency in capitalism of work becoming an end in itself. However, it is needed to go one step further than Graeber does, who empowers people to voice their own perceived meaninglessness and thus the “shittiness” of their jobs, and extend this to a more broad notion of meaningless jobs (Bal et al., 2023), including recent jobs such as “social media manager,” “content manager,” and software developers. Hence, it is not merely the question of whether people perceive their jobs as meaningless, but also whether there truly is a societal meaning in the existence of jobs. Does society need so many marketing managers or people in the finance industry, who merely make their profit at the expense of society? The COVID-19 crisis showed the difference between crucial jobs and jobs that prove to be useless in times of pandemics and crises (Torres & Orhan, 2023). Notwithstanding the question of whether jobs are truly disappearing, and whether some types of jobs may be in decline and which are on the rise (e.g., wind turbine installer), the fantasy of robots replacing humans at work serves an important ideological purpose, and therefore remains a powerful societal narrative. It feeds a feeling of anxiety and at the same time offers an appealing narrative to media and other outlets about the “dangers” of technology for ordinary citizens. It is striking how such dangers are rarely combined with the danger of boring, menial tasks that are added as a result of technology. Often, technology can only offer a substantial part of a task, but never fully—which means that there is a residue—a part of a task that has to be individually and manually conducted by people. Furthermore, in light of the tendency of generative AI to invent facts if they cannot be found and they cannot self-correct, there is still currently very much a great reliance on human intervention to ensure that the balance and search algorithms are giving “reasonable” responses. The need to therefore always keep a human “in the loop” was recognized by the National Grid CIO (Allen, 2024).

It is also in the rising of technological society that these menial tasks have “created” a significant rise in jobs. For instance, while in the past, people would cook themselves or go out to a restaurant, it is now possible to use technology to order food to be delivered at home. However, despite the technological advancement of online ordering, the actual delivery has to be done by individuals. Hence, we have

seen the rise of delivery drivers, often forced into precarious, low-paid jobs, without much meaning and possibilities attached to them (i.e., few opportunities with meaningful contact with other people, or little possibility for growth and advancement in one's job).

To further explain why this fantasy of robots replacing humans is so powerful, we can look at the more ideological connotations of such a fantasy. In his work on ideology, Žižek (1989, 2010) points to the crucial role of the “external intruder” in strengthening a certain ideology of exclusion in society. A contemporary form of such exclusion through scapegoating concerns Muslims and non-Western immigrants across the Western world (through Islamophobia and xenophobia). It can be observed that a “fear of robots” may perform a similar function. Robotization and technology are also perceived as external intruders that exist in the midst of humanity, which have infiltrated society and are currently “taking over” jobs and work. This is also a view that is perpetuated by a number of recent Hollywood movies and television series. Yet, there is little control over AI and robotization, as it constitutes a completely autonomous process that is not controlled in any way by individuals, and there is little attempt to control AI collectively, such as through legislation or political action. Indicative is the impossibility of an outdated political system to regulate technology organizations such as Google and Meta, which move freely and are not constrained by geographical borders or laws. Hence, technology is externally imposed upon humanity, endangering “traditional” ways of living and working by replacing jobs through automation. This is particularly important to consider when technology is able to self-learn and develop and therefore may outperform the human mind relatively quickly. It is only those people who are flexible, adaptive, and able to bend with the change in AI direction who may survive. In the meantime, technology creates fear among people about the very basis of their existence, and due to its “uncontrollable nature” demands mere submission. Claims that an AI robot that could pass the “Turing test” would know to pretend to not pass this test are the sorts of claims that can concern the general public. Yet, at the same time, the very question of whether technology replaces jobs may be not so relevant after all given capitalism's ability to perpetually reinvent itself and create new jobs.

What is conspicuously absent from such discussions is not the question of whether jobs will disappear, and hence, whether robots become more human-like, but whether humans become more robot-like. It is argued by Kirsch (2023) that at least 10% of the US population are already cyborgs in the most traditional sense of the world as they are enhanced by technology, such as pacemakers, artificial joints, and corneal implants. In addition to this, not only technology is penetrating people's lives and existence but the opposite: human lives are penetrating technology and particularly smartphones and the digital world, where a whole new representation of humanity is created. As alluded to above, deepfakes make us question the realness of any digital image, but perhaps over time, this will not matter and technological existence will be the only viable credit which matters—that which exists online will be more “real” than physical existence. Nonetheless, the price that needs to be paid for a digitalized existence is the monotonization of life; on the one hand, people actively reduce work and that which is done into a binary mode of zeroes and ones,

or that which has the right to exist digitally. On the other hand, and more straightforward, is the robotization of work itself. Bureaucracy was intended to create consistency and fairness in administering work and decisions, but digitalization has helped bureaucracy to penetrate every level of the workplace, rendering technology-without-meaning the opportunity to devoid work from its potential (intrinsic) meaning. Hence, the question that perhaps is more relevant to ask, is how jobs can be sustained such that they are meaningfully rich and not hollowed out from the inside through bureaucratic form-filling, repetitious efficiency, and merely driven by extrinsic targets? Instead of a fear that robots replace jobs, perhaps it is also important to make jobs themselves more meaningful, and not merely in support of technology—in other words, to create jobs around those tasks that cannot be handled by robots and AI.

Fantasy #2: Technology Saves Humanity

Perhaps the most difficult and most stubborn fantasy concerns that of the potentiality of technology. As alluded above, technology has a strong convenience appeal. Technology makes human lives more convenient and thereby saves time from focusing on mundane tasks so people can focus on more important priorities in life. Yet, beyond this technology as convenience argument, there is a stronger myth, which is that technology can save humanity. This myth is of course most strongly related to techno-optimism as described above. The appeal of technology in contemporary society is not merely due to its addictiveness at the personal level (i.e., how people are hooked on their digital lives), but primarily aided through a belief in the potential of technology to solve many of the contemporary problems of our society. Green liberals advocate for “green growth,” the “green economy,” or the notion that climate change can be reversed through electric cars, wind- and solar energy, and geo-engineering (The Guardian, 2019a). Techno-optimism claims that technology can be used to produce more efficiently and create less waste in supply chains, so that ultimately poverty can be eradicated worldwide. Cute seal robots (Parorobots, 2019) can now take care of people with dementia, or help children in the hospital feel less lonely (without asking the question of why these people are lonely in the first place). Many also see technology as the solution to the issues on planet Earth by allowing further space exploration and the ability for the human race to move to other planets, such as Mars. The interest of billionaires in travelling to space is highlighting this area of technological development. When the planet is used and no longer provides for our basic needs, we can travel and inhabit another planet using technology.

In other words, fantasies function as imagined solutions about how technology may be used to solve problems that cannot really be controlled (e.g., poverty and climate change). It soothes feelings of discomfort vis-à-vis the predicament of contemporary society, and it does not raise the question of what the hidden costs of technology actually are. For instance, in the Netherlands, intensive farming (e.g.,

there are about 100 million chickens (Kip in Nederland, 2019) and 1.7 million cows (Statista, 2019) in the Netherlands) has caused a rapid decline in biodiversity (NIOO, 2019). The “efficient” use of technology to optimize the production of dairy, meat, and farmland over the last decades has had dramatic consequences for the sustainability of the land and biodiversity, the quality of soil, as well as enormous risks for public health, as COVID-19 crisis showed (again). This belief in technology as a potential life saver, however, has a more fundamental purpose, as it shifts away attention from the need to act. When technology is able to deal with contemporary societal challenges, it is less important to change ways of living, to consume less, and to reorganize society (political-economically) such that people with dementia do not have to rely on robots for contact or attention. It soothes feelings of guilt and puts trust into external bodies, in the belief that technology will ultimately save humanity. Meanwhile, such technological advancements also perform the function of economic innovator, thereby playing a double role of relieving guilt about the inability to change ways of living in the face of environmental and societal destruction, and at the same time, fully adhering to the economic growth logic (Bal & Dóci, 2018). Yet, it is harder to overcome the core fantasies and realize that most likely other interventions are needed to “save the planet,” such as a major overhaul of the political-economic system that continues to exist on the basis of exploitation of the planet for economic growth (as the COVID-19 crisis showed; it is only during a global “lockdown,” and shutting down of the economy that the planet can be protected). It is also not really a viable option for humankind to forget about Earth and move to another planet to start again in the near future. Hence, technology is unlikely to save humanity, and in its fantasmatic nature, is better acknowledged as a danger to human survival. New technologies are invented continuously and fulfill capitalism’s need for perpetual economic growth. When they can be portrayed and sold as “sustainable,” only those who believe in this promise pay attention to it, while its existing destructive effects on humanity and the inequalities, through which technology is usually implemented, are denied. When techno-optimists talk about the promise of technology to save humanity, it is also necessary to acknowledge that over a quarter of the global population still do not have access to fresh drinking water, and that their lives are less concerned with the latest innovations and more with basic survival needs.

Fantasy #3: No Work, Yet Income

Even techno-optimism admits that automation, AI, and robotization are unlikely to lift each and every individual out of poverty into an existence of meaning and autonomy. Neoliberal entities such as the World Economic Forum (Schwab, 2016) are in fact willing to acknowledge that technology may lead to greater inequality and disrupt labor markets. However, they have come up with an answer to this, which had already been provided by free-market radical Milton Friedman, who advocated for a universal basic income to ensure purchasing power of citizens, so that companies

can continue to rely on consumer demand. The Basic Income is not merely a project of the radical left but has always been welcomed across the political spectrum, especially by both left- and right-wing liberals. The argument goes as follows: when AI and robots will take over jobs, it will no longer be necessary to conduct (menial) work that currently has to be performed by humans. Therefore, workers in menial and low-meaningful jobs will be “freed” from the need to work for money, and they will be able to have more time for family and hobbies. They then only have to work if it is intrinsically motivating and/or rewarding for them. This can be realized through a (universal) basic income that provides a minimum basis for each individual to survive. This fantasy is perhaps the ultimate translation of Nietzsche’s nihilism into utopian thinking; while Nietzsche argued that work will always involve slavery, as humanity can only exist through culture, and culture is produced by artists, who are economically unproductive, and thus have to live and exist at the expense of the people who have to work, and who are hence enslaved to finance the existence of culture. In the basic-income fantasy, all can be freed from the slavery of work, when work is conducted by AI and robots. In this fantasy, Nietzsche is trumped, as the economic slavery necessary for “culture” can be produced through robots, and everyone can enjoy culture.

There are two main points to be made about the basic income fantasy. First, there is the somewhat trite argument that basic income, even though it is becoming more and more popular with the years, is simply against the evidence of the time. Keynes famously predicted the 15-hour workweek due to technological change, which is not anywhere near any conventional workweek throughout the world today. First, there is no indication that, due to technological advancements across the world, humans are actually starting to work less. A somewhat straightforward explanation is the political-economic ideologies, such as neoliberal ideology and protestant work ethic, which tend to emphasize the value of work, and the great importance of working to contemporary human identity. As long as people continue to “believe” in the centrality of work to their identities, they will be unlikely to collectively start to work fewer hours. Thus, there is no indication that technology “frees” people from the imperative of “working to live.” In fact, since the pandemic people who work from home are reportedly working up to 25% more than pre-pandemic (The Guardian, 2021). Moreover, implementations of AI and robots have created more jobs in terms of producing, maintaining them, and conducting work that cannot be carried out by the robots themselves.

Furthermore, current governmental tendencies are diverging from basic income principles, actually, and are generally moving in the opposite direction. Unemployment and social benefits are nowadays harder to obtain and retain, and are also made increasingly dependent upon activities to (re-)gain employment (e.g., active traceable job search activities), or conducting voluntary work, in order to have the “right” to benefits (primarily as a result of neoliberal austerity policies). Therefore, a universal basic income, without any restrictions, could not be further from this practice.

However, a more fundamental concern with the basic income utopia regards its exclusionary nature. While, in principle, the basic income constitutes a promise, an

ideal, it is by definition based on exclusion, which a ‘universal’ basic income claims to neutralize. This is noticeable in the experiments that have been conducted worldwide with basic income. All existing experiments have been conducted in small and isolated communities, such as in Canada, Alaska, Finland, and Israeli Kibbutz. Due to the seclusion of these communities, there was little migration from and to the communities, which made it much easier to decide on who would have the “right” to a basic income. However, in any community that is not isolated from the rest of the world, migration proves to be an important issue, which thus raises the question who the right to basic income belongs to. While cross-border migration (due to war, hunger, or climate change) has never been higher in the history of humanity, the implementation of a basic income would always involve some form of exclusion. For instance, migrants would be excluded from basic income, as otherwise, such an entitlement would attract streams of immigrants travelling to countries with universal basic income. It would not be difficult to imagine current societal debates (around immigrant, populism, the “will of the people,” and so on) being amplified through the implementation of basic income. In this rhetoric, only those people truly deserving a basic income would be entitled to it, while a growing group of others would be excluded. It would not even be farfetched to see some kind of apartheid-state developing, based on a division between basic income receivers, and those who have not earned their rights to be worthy of a basic income. In other words, it would be likely that a societal struggle could emerge over who has the right to be considered among “the people,” and thus to have the right to a basic income. Moreover, implementation of basic income on the basis of exclusion of some groups of people in society would also require elaborate administration and bureaucracy. As such, a basic income can hardly be truly “universal,” as it is probably to be based on exclusion of groups, and thus likely to lead to struggles over who has the right to it and who has not.

Fantasy #4: Technology Will Free Humanity

Notwithstanding the (im-) possibility of a basic income, the fourth fantasy concerning technology is that it will free humanity to develop themselves as human beings. This is more or less a variation of the second fantasy, that technology will save the world. Yet, this fantasy, especially pertains to the idea that technology has the potential to enrich people’s own individual lives. Again techno-optimism underpins this fantasy, but at the same time, the voice of reason also is firmly rooted in the development of a freedom-fantasy of technology. On the one hand, (digital) technology enables people to work, communicate, and trade globally. Many can work anywhere they want across the world, travel, and find friends globally. The economic logic behind this has always been clear; global trade fuels economies worldwide, and spurs economic growth. At the same time, choices of consumption appear unlimited, in many cases. For instance, with online education, all the knowledge of the world is readily available on screens. The fantasy tells us we are able to develop

ourselves, because of an unlimited choice of consumption. But technology is not just an enabler of personal development; lives have become increasingly digitalized and people have entered and occupied the digital zone, to express their own identities. It is no longer strange for a child to want to become an “influencer,” and thus to live a digital life rather than a real one (see, e.g., Marie, 2019). Ideas such as the Metaverse and Meta Quest devices, as well as Apple’s Vision Pro, promise to allow individuals to create, build, socialize, and of course buy within a virtual reality world. An idea that has been tried before within Second Life but which this time promises to be “not a thing a company builds... [but the] ...next chapter of the internet” (Zuckerberg, 2022). In this sense, robotization and AI provide endless opportunities, and will enable an experience of freedom, whereby people are no longer restricted to living their lives in a mundane environment and career, but have the option to move freely across the globe and discover themselves.

However, more or less from the start of the Internet, its structure and development have been defined through a clear economic logic which may not as yet be apparent in such virtual worlds. It is now commonly known that the initial “deal” between the Internet user and a website/platform provider is that of an exchange of personal data for use and personalized advertisement. Platforms such as Instagram collect data about every aspect of people’s lives, and as much as possible. In return, they provide the use of their platform to individuals and even provide them with individualized advertisement based on user profiles. They sell the data to advertising companies which can then target specific groups through their advertisement strategies. This has all been too familiar to anyone using digital media, and offers only partial insight into the exchange that is actually unfolding.

Yet, as Zuboff in her book on Surveillance Capitalism (2019) showed, there is another deal, which shows at another level how technology does not free humanity, but enslaves into the deal of data as a commodity. This deal concerns the other aspect of what happens to the data users produce and provide freely, which are not merely traded to companies for personal advertising, but to any trader who is interested in the prediction of human behavior, on the basis of “big data.” This concerns something that is, once again, controlled by AI and technology. Social scientists have been complicit to this, as it was the social sciences and psychology, in particular, that always aimed to predict human behavior on the basis of data. Currently, any party (be it insurance companies, governments, or tech companies) may trade in data for prediction and control of human behavior, something which was highlighted in the Cambridge Analytica scandal in 2018 (The Guardian, 2022). The potential of such cases demonstrates not freedom of the human being, but is more akin to Foucault’s Discipline and Punish (1977), with the implication of the totalitarian state through technology. In the West, this is outsourced to the private sector (i.e., where the main players are, such as Google, Meta, Microsoft, Amazon, and Apple), whereas in the East, this has been under the control of the government (for instance, with its notorious Social Credit System in China). All in all, the freedom-fantasy which has been popular in relation to technology, may more likely turn out into the much more contested state of surveillance capitalism.

Work Psychology and Technology

Arguably, the psychology of management did not formulate a clear response to technology at work, and, in particular, in relation to these fantasies. There is little indication of a critical stream emerging and actively engaging with these debates. Instead, work psychologists and management scholars tend to focus on narrowly defined instrumental outcomes of psychological processes, such as research showing the instrumental outcomes of psychological processes in relation to emerging technology, such as crowdfunding, published in the flagship journal, *Journal of Applied Psychology* (Li et al., 2017). Reviews of the nascent field of technology and work psychology remain overly focused on the instrumental role of technology in the workplace, and the role of work psychologists to “Maximize the positive consequences for individuals and organizations and minimize the negative effects” (Cascio & Montealegre, 2016, p. 369). It is disappointing that work psychologists refrain from using their intellectual skills to engage in a deeper analysis and conversation about the role of technology in the workplace, and the psychological fantasies that underpin many of the beliefs around technology. Clearly, it is needed to move beyond the question of how technology can maximize productivity outcomes while minimizing its negative consequences (e.g., unemployment and alienation).

First, technology is not merely imposed externally upon people; individuals and societies have control over what is offered, and how and to whom it is offered. Technology is likely to amplify existing inequalities, as it will be wealthier countries, organizations, and individuals who are able to afford convenience technologies (a Nest Mini (Google, 2024) sounds ludicrous if you are living in a shack). Hence, work psychologists also need to ask the question of who gets what, how power determines who gets what, and who decides who gets to make these choices. Second, we need a morality-based perspective on the psychology of automation and AI. While work psychology is typically based on the instrumental notion of people and technology to be implemented for the generation of corporate profit (Bal & Dóci, 2018), it is necessary to theorize on the ethical implications—where people are pushed out of workplaces when AI is implemented, the use of technology and AI to replace workers, the privacy issues in a digital existence, and the fantasmatic nature of most work in the field concerning the role of technology and AI—notwithstanding their actually existing destructive effects for people and social cohesion. A further angle perhaps worthy of consideration is the recent move by the House of Lords in the UK, in light of the recent UK Post Office Horizon scandal, to scrap the law that IT is always right (Telegraph, 2024). Together with the recognized traits of generative AI to invent facts where these cannot be found, this presents an interesting dilemma between the reliance on these technologies to “save humanity,” and a crumbling of the foundation of absolute trust and belief that is put into these systems.

In the absence of a critical tradition in work psychology, an interesting first area of research for the upcoming Critical Work Psychology Movement (see FoWOP Website, 2023) could focus on the role of technology in work psychology. As psychologists, it is needed to overcome internalized fantasies of technology in the

workplace, and the first step to do so, is to acknowledge they are responsible for their own fantasies. Awareness is the first step toward better understanding, but a more explicit recognition of the ethical issues around technology and AI would serve the community better.

Policy and Leadership Implications

The question remains what policy makers, organizations, managers, and leaders do on the basis of the current analysis? While fantasies and myths are deeply rooted in the human psyche, they are resistant and hard to change. They are deeply embedded within core beliefs and can determine not just how people perceive the world and reality, but also how they relate to the world, and consequently shape reality. When policy makers construct governmental policy and regulation on the basis of techno-optimism and beliefs in a myth of freedom and the unlimited potential of technology, it is likely that the more critical aspects are neglected, denied, or plainly resisted (e.g., using a voice of reason denying the severity of potential drawbacks).

Key critical aspects such as the ethical use of AI and robotization can be particularly difficult to legislate for when such technology is typically not subject to border controls in the same way that physical goods will be in many countries where the Internet is freely available and not subject to governmental limitation or control. The extensive use of technologies such as AI also means that there are a number of ethical implications and scenarios for policy makers to consider such as in education, manufacturing, and autonomous vehicles (Forbes, 2022). The pace of technological change also occurs at such a rapid pace that the current timescales for legislation changes cannot keep pace (MIT Technology Review, 2014). Even where legislation is made this may be different within different jurisdictions and companies may choose to locate in areas in which more freedom is given to their operations (Guardian, 2018).

Generally, policy serves two main functions: on the one hand, it aims to protect the interests of elites and economic interests. On the other hand, policy aims to perpetuate the status-quo under a progressive narrative that would appeal to individuals, such that resistance is less likely against the remaining status-quo that favors the interests of the elite.

As identified, techno-optimism and the voice of reason fit well with most societal narratives at the policy level. In this narrative, policy is developed around the potential of technology for both social and economic progress and development. This leads to an inherent tendency to be overly positive toward the promise of technology and the ease of implementation. However, at the same time, policy input may be more focused on the critiques relevant to technology and its implementation, such as the inequalities and biases inherent in algorithms (Zajko, 2022). This does not mean that the inherent problems of unequal technologies are easily repaired. Of course, awareness of one's own particular fantasies, and the existing myths abounding regarding technology constitutes an important first step toward change—first

among policy makers themselves, and second, toward a more equal policy that takes into account both the possibilities of technology, but also their performance as a myth. However, technology and its implementation in society is not merely a neutral, a-political phenomenon: it is embedded within global societal structures themselves. Hence, it is not merely a question of becoming aware of one's "unconscious biases," as the very nature of a bias to be unconscious indicates that it is not accessible to the individual, and a mere "training" to become aware of one's unconscious feelings and responses constitutes an affront to a century of psychoanalysis. Instead, technology is inherently integrated into a system where it is produced in the rich West (e.g., USA and Europe), or in upcoming economies such as China, where it is immediately transformed into (political) power: among all the most influential companies in the world, the tech companies play an essential role, either in their capacity of being one of them, or allowing the "strongest" companies in the world to operate, using their systems and possibilities. One important notion is the way through which technology is implemented globally: it aligns perfectly with the hegemonic structures created by the elite West, which continue to profit from the centuries of colonialism (Andrews, 2021).

Hence, for policy makers, it is not sufficient to merely become aware of their biases and fantasies about technology—a more radical insight is needed to change actually existing circumstances. Even if AI may be developed in the USA and Europe, it is implemented globally (albeit not within countries that tightly control and limit the availability of the internet and technology to its citizens (Independent, 2023), thereby favoring the companies that developed the AI, which could use the infrastructure and resources available locally (e.g., even at the basic level, those growing up and living in countries at war will be primarily occupied with surviving rather than developing an AI robot that can speak and grab an apple from a table). These resources and infrastructure have been there because of wealth created through centuries of colonization, suppression, and plunder (Andrews, 2021), hence to merely present such technological developments as neutral and a-political is a serious shortcoming. Instead, policy makers have to be *fully* aware of the context through which wealth has been created (over centuries), which enabled the conditions necessary for the development of advanced technology.

It is, hence, important for policy makers to create any policy, regulation, and law in line with the context in which technology is generated: this means that technology should always be designed and implemented to rectify past injustices rather than to reproduce existing ones. Policy makers, therefore, need a large amount of ethical and historical awareness, which would typically not be criteria for employment selection. This creates a situation where there is a mismatch between the actual requirements of the job and the pressure to create policies that can be accepted and implemented without too much resistance. In an age of populism, it is not surprising that the profession of policy making is facing many challenges.

Management and Leadership (Power of Influence) Implications

In addition to policy impact, this chapter on the fantasies of technology has implications for managers and leaders in organizations. Again, awareness is not enough, but it is a starting point through which changes may unfold. The notion that technology does *not* save humanity, and that our political-economic-social systems behind technology are more important to understand in determining the impact of technology on organizations and individuals, are important cues for managers and leaders to draw upon. Among leaders and managers in organizations, there is usually a persistent belief in the promise of technology—is at best-providing solutions for problems and providing some new insights and possibilities, while taking into account its possible deleterious effects on humanity and its likely perpetuation of inequalities (Zajko, 2022). This therefore necessitates managers to carefully implement technology, and always to take into account its externalities which may be more deeply embedded in the design and constitution than it may seem at first encounter.

Prudence, therefore, is key when it comes to the design and implementation of technology. For many types, energy and precious minerals and metals are needed. These tend to be harvested from around the world in neocolonial structures and relationships (e.g., where children and/or slave laborers mine precious metals in horrendous conditions to be used for AI robots). The end product (a fancy Seal robot) may not reveal the exploitation necessary to create it. Therefore, it is the ethical duty of managers to concern themselves with the context in which technology is designed and implemented. However, in a prevailing neoliberal-capitalist order, ethical duty remains a somewhat hollow concept, whereby economic logic trumps any other type of ethical logic. In this sense, there is little reason for optimism, and the warnings regarding the implementation of technology in society (Zajko, 2022) remain appropriate. A real confrontation with the fantastic nature of beliefs in and about technology is a task for managers and leaders throughout the world to measure up against, particularly in the West. Ideas of a fairer world, in which justice and dignity (Ajari, 2022) are central, still abound but, at the same time, seem further than ever before. Therefore, the challenge for work psychologists, managers, workforce, academics, and practitioners is to remain true to the values of the profession, while striving and fighting for justice and dignity—especially in terms of ever-increasing and pervasive technology in society.

The relationship between power, politics, and influence in the realms of automation and artificial intelligence (AI) is intricate and layered. As these technologies advance at a rapid pace, it becomes increasingly crucial for all stakeholders—governments, corporations, technologists, and civil society—to collaborate effectively. This collaboration must be anchored in ethical principles that prioritize human welfare, comprehensive transparency regarding technology development processes, and a steadfast dedication to serving the collective good. Establishing frameworks that guide the ethical development and implementation of AI and automation involves addressing pertinent issues such as data privacy, algorithmic bias, and job displacement. By engaging diverse perspectives and fostering open dialogues,

stakeholders can work toward regulations and standards that mitigate risks associated with these technologies. Moreover, embracing a shared vision for the future is essential for realizing the transformative potential of AI and automation. This entails creating systems that do not only drive economic growth but also ensure inclusivity and equity across society. By focusing on these key areas, we can unleash the full capabilities of AI and automation, ultimately paving the way for a more just, equitable, and prosperous future for everyone.

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