

On Freedom in the Artificial Age

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ABSTRACT: The currently ongoing introduction of *Artificial Intelligence* (AI), robotics and big data into our contemporary society causes a market transformation that heightens the need for ethics in the wake of an unprecedented outsourcing decision making to machines. Artificial Intelligence (AI) poses historically unique challenges for humankind. This chapter will address legal, economic and societal trends in the contemporary introduction of Artificial Intelligence (AI), Robotics and Big Data derived inferences. In a world, where there is a currently ongoing blend between human beings and AI, the emerging autonomy of AI holds unique potentials of eternal life but also imposes pressing legal and ethical challenges in light of AI gaining citizenship, overpopulation concerns and international development gaps. The current legal status of AI and robotics will be outlined with special attention to consumer protection and ethics in the healthcare sector. The unprecedented economic market revolution of outsourced decision making to AI will be captured in macroeconomic trends outlining AI as corruption free market solution, which is yet only prevalent and efficient in some parts of the world. Finally, a future-oriented perspective on the use of AI for enhancing democracy and diplomacy will be granted but also ethical boundaries envisioned. The mentioned transition appears to hold novel and unprecedentedly-described freedom challenges in our contemporary world. In an homage to freedom, the following paper first lays open these freedom-threatened areas in order to then provide strategies to alleviate these potential freedom deficiencies but also set new freedom potential free.

KEYWORDS: AI, Artificial Intelligence, Climate change, Climate justice, Discrimination of excellence, Freedom

1. Introduction

1.1 Overview

The following research nurtures an environment of freedom in our contemporary society. The currently ongoing introduction of *Artificial Intelligence* (AI), robotics and big data into our contemporary society causes a market transformation that heightens the need for ethics in the wake of an unprecedented outsourcing decision making to machines (PuaSchunder 2018b, 2019g, 1, forthcoming a). Artificial Intelligence (AI), Robotics and Big Data revolutionized the world and opened unprecedented opportunities and potentials in healthcare. No other scientific field grants as much hope in the determination of life and death and fastest-pace innovation potential with economically highest profit margin prospects as does medical care.

Freedom lies at the heart of human beings and is the core of human endeavors. Freedom is fundamental in sorts of modes of living. It becomes a motor of motivation and a driver of striving. Only when being free, people can release their truly creative inner spirit. Freedom has many facets and faces. The natural, technological and the social. Research on freedom can enlighten different domains: the natural, the technological and the social (PuaSchunder 2010).

Regarding technological change, freedom can lift the shackles from a new technology hegemony but also set productive energy of humans free in an efficient market transition featuring a harmonious human-machine compatibility (PuaSchunder 2019c, d, i, j). Shedding most novel light on the currently ongoing market transition of an entrance of AI into society is an

¹ The author declares no conflict of interest. All omissions, errors and misunderstandings in this piece are solely the author's.

innovative approach to improve productive societies and innovative progress yet with attention to ethics to ensure a liveable climate in an artificial society.

2. Freedom

2.1 Artificial healthcare

An expert survey conducted in November 2019 identified big data-driven knowledge generation and tailored personal medical care but also efficiency, precision and better quality work as most beneficial advancements of AI, robotics and big data in the healthcare sector. Decentralized preventive healthcare and telemedicine open access to personalized, affordable healthcare.

Technical advancements and big data insights – at the same time – increase costs for a whole-roundedly healthy lifestyle. Particularly in Western Europe, the currently tipping demographic pyramid coupled with obstacles to integrate migrants long-term to rejuvenate the population and boost economic output impose challenges for policy makers and insurance practitioners alike. Studies in the US found that 70% of all health related costs are accrued during the last few weeks of peoples' living. In Austria, healthcare cost are expected to double in this decade. This predicament of rising costs of an aging Western world population, raises questions such as – Should we decrease the access to the best quality medical care in order to maintain the pursuit of a mandate of medical care for all – or should we allow a different-tiered class-based medical system, in which money determines who can afford excellent healthcare? Potentials of AI in healthcare comprise of big data and computational power hold unprecedented scientific and financial opportunities. Crowd understanding, trends prediction and preventive healthcare control, e.g. genetic testing (278 tests via blood in the US, egg freezing hand-picked most prosperous genetic material, 23andme insights lead to challenging questions of ethics.

In the healthcare sector, the EU has a competitive advantage over the US and China as for a historically-grown wealth of data on a homogenous population ennobled with an ethical imperative focus. Due to a highly-skilled population, the European continent is a technological innovation leader and picks up technological advancements around the world quickly and efficiently. Europe has a post-war history of stressing ethical considerations in market-driven innovations that it bestows upon scientific advancements – for instance, more precautionary standards in releasing drugs. Europe has an extraordinarily homogeneous population and hosts a major part of pharmaceutical agencies that are relatively independent of market actors – in the US, for instance, big data insights are regulated by the Federal Trade Commission (FTC) and the Federal Communications Commission (FCC), two agencies that are more market oriented. European citizens pay for free universal healthcare by automatic provision of data. In the age of information, in which big data has become the new untaxed wealth generation means, novel computational advancements can now retrieve medical insights from patient data that can be capitalized, especially for preventive medical care. Contrary to the US, within the EU healthcare is oriented towards preventive rather than emergency and reconstructive medicine and puts a human face on capitalism. The US medical market is more fractionated into public and private sector health and features a more market-focused approach, in which ethics often get sidetracked. China offers a traditionally completely different Asian medicine school and human rights standards are challenged when it comes to harvesting prisoners for organs and access to medical care becoming dependent on social credit scores. Europe can therefore offer the world a big data-driven preventive medical care in the Western tradition with particular attention to ethics.

2.2 Artificial Intelligence Ethics

The most recent decade featured a data revolution in the healthcare sector in screening, monitoring and coordination of aid. Big data analytics have revolutionized the medical profession. The health sector relies on Artificial Intelligence (AI) and robotics as never before. The opportunities of unprecedented access to healthcare, rational precision and human resemblance but also targeted aid in

decentralized aid grids are obvious innovations that will lead to most sophisticated neutral healthcare in the future (Puaschunder forthcoming c, d).

Yet big data driven medical care also bears risks of privacy infringements and ethical concerns of social stratification and discrimination (Puaschunder 2017a, b, c, d, 2018a). Today's genetic human screening, constant big data information amalgamation as well as social credit scores pegged to access to healthcare also create the most pressing legal and ethical challenges of our time. The call for developing a legal, policy and ethical framework for using AI, big data, robotics and algorithms in healthcare has therefore reached unprecedented momentum to ensure a future freedom from a digital hegemony but also to set productive energy free in light of a possible harmonious technological revolution (Puaschunder 2019j).

Problematic appear compatibility glitches in the AI-human interaction as well as a natural AI preponderance outperforming humans (Puaschunder 2019a, b). Only if the benefits of AI are reaped in a master-slavelike legal frame, the risks associated with these novel superior technologies can be curbed. Liability control but also big data privacy protection appear important to secure the rights of vulnerable patient populations. Big data mapping and social credit scoring must be met with clear anti-discrimination and anti-social stratification ethics. Lastly, the value of genuine human care must be stressed and precious humanness in the artificial age conserved alongside coupling the benefits of AI, robotics and big data with global common goals of sustainability and inclusive growth.

Reports to the European Parliament aimed at helping a broad spectrum of stakeholders understand the impact of AI, big data, algorithms and health data based on information about key opportunities and risks but also future market challenges and policy developments for orchestrating the concerted pursuit of improving healthcare excellence. Stateshuman and diplomats are invited to consider three trends in the wake of the AI (r)evolution:

Artificial Intelligence recently gained citizenship in robots becoming citizens: With attributing quasi-human rights to AI, ethical questions arise of a stratified citizenship. Robots and algorithms may only be citizens for their protection and upholding social norms towards human-like creatures that should be considered slave-like for economic and liability purposes without gaining civil privileges such as voting, property rights and holding public offices.

Big data and computational power imply unprecedented opportunities for: crowd understanding, trends prediction and healthcare control. Risks include data breaches, privacy infringements, stigmatization and discrimination. Big data protection should be enacted through technological advancement, self-determined privacy attention fostered by e-education as well as discrimination alleviation by only releasing targeted information and regulated individual data mining capacities.

The European Union but also the North American Free Trade Agreement should consider establishing a fifth trade freedom of data by law and economic incentives: in order to bundle AI and big data gains large scale. Europe holds the unique potential of offering data supremacy in state-controlled universal healthcare big data wealth that is less fractionated than the US health landscape and more Western-focused than Asian healthcare. Europe could therefore lead the world on big data derived healthcare insights but should also step up to imbuing humane societal imperatives on these most cutting-edge innovations of our time (Puaschunder 2018c).

2.3. Leadership recommendations

In order to enable a big data capitalization coupled with upholding highest ethical standards, the European Union should foster a fifth trade freedom of data to bundle AI and big data gains large scale. While big data is primarily used in the US to offer more targeted consumerism, Europe should aim for building a data stock to retrieve information for preventive care leading the world with ethical imperatives in big data insight-driven medicine. A fifth data freedom should focus on setting positive market incentives for sharing information within the European compound, but also provide the necessary tools for anti-discrimination and human rights violations stemming from big data and robotics.

Data insights should only be used for the benefit of people but not be turned against human beings. A stakeholder survey conducted in November 2019 revealed that risks in the use of big data insights, AI and robotics in healthcare include: Data misuse and leakage leading to privacy infringements, as well as biases and errors (Puaschunder 2019). Big data insights open gates for health care pricing, stigmatization, social stratification, discrimination and manipulation.

Big data in the healthcare sector should only be used with caution and targeted particular information release to avoid discrimination. For instance, only anonymized data slices should be made available to the public in order to avoid stigmatization, gentrification and discrimination based on predictable prevalences within population groups or certain districts.

Data protection through technological advancement, self-determined privacy attention through education as well as discrimination alleviation through taxation of data transfer values are recommended. Taxation of data transfer revenues will grant the fiscal space to offset losses and the social costs of market distortions caused by robots and algorithms taking over human tasks and entering the workforce in the medical marketplace.

As for the tipping age pyramid, robots are expected to become vital parts of our healthcare community in elderly care and care with people with chronic diseases in need for long-term medical attention. Robots have recently gained citizenship.

With attributing quasi-human rights to robots, ethical questions arise of a stratified population and sustainability when considering the eternal character of robots. 3 legal codes for enabling a diversified citizenship: Ancient Athenian city state (classes of citizens with active and non-active or no voting right at all), Roman Law (liability predicaments solved in taxation and risks involved in slavery) & Code Napoléon (male and female differing on property rights and market activity). Robots may only be citizens for their protection and upholding social norms towards human-like creatures but may not have full citizen privileges such as voting, property rights of possession and holding a public office.

Compatibility with AI will become key and should be integrated into educational curricula, personality trainings and intelligence scores in admission acceptance testings. Humanness will become more precious in the future, such as true care, empathy, procreation etc. Loss of humanness and human replacement as well as dependence → psychological studies of the value of true care and long-term studies are needed. Diversity in AI based on stakeholder engagement.

3. Interconnected Freedom Endeavours

In a world, where there is a currently ongoing blend between human beings and artificial intelligence, the emerging autonomy of AI holds unique potentials of eternal life. With AI being endowed with quasi-human rights and citizenship in the Western and Arabic worlds, the question arises how to handle overpopulation? 24/7 functionable will raise sustainability concerns and likely exacerbate climate change. Should AI become eternal or is there a virtue in switching off AI at a certain point? If so, we may have to redefine laws around killing, define a virtue of killing and draw on philosophy to answer the question how to handle the abyss of killing AI with ethical grace, rational efficiency and fair style. The presented theoretical results will set the ground for a controlled AI-evolution in the 21st century, in which humankind determines which traits should remain dominant and which are meant to be killed.

4. Freedom Strategies

4.1 Natural behavioural law

Evolutionary grounded and practiced ever since, fairness is a natural behavioral law – a human-imbued drive being bound by human fallibility. My research theoretically defines fairness as a natural behavioral law, captures human ethicality bounds and system downfalls in the compatibility with novel technologies. Overall, introducing fairness as a natural behavioral law advances the legal case for codifying justice on an international basis. A whole-rounded ethical decision-making anomalies frame can shed light at bounded ethicality concerns. Exploring contemporary ethics constraints

regarding the technological revolution will allow to experimentally test the generalizability and moderators of fairness. Investigating cognitive facets of fair decision making innovatively guides foresighted protection education and social policy implementation. Enhancing artificial compatibility, social welfare and environmental protection through discussing fair public policies is aimed at alleviating future predictable economic, social and environmental crises in order to ensure a sustainable humankind (Puaschunder 2019e).

4.2 Legal endeavours

One of my projects studies Artificial Intelligence (AI) in our contemporary society. What is the impact of robots, algorithms, blockchain and AI entering the workforce and our daily lives on the global economy and human society? On innovation's razor's edge of 24/7 working robots that can live eternally and have no feelings, ethical questions arise whether robots, algorithms and AI should be granted citizenship and legally be considered as quasi-human beings — a technocratic and legal trend that has already started (Puaschunder 2019c, g, k).

While the research is planned to be descriptive – afar from normative – and targeted to aid a successful introduction of AI into the workforce and society, the project will ask critical questions and unravel the ethical boundary conditions of our future artificial world. How to balance robots living forever in light of overpopulation and finite resources? How do we switch quasi-human intelligence off when misbehaving or if AI life has become a burden that cannot be borne by society? In light of robots already having gained citizenship and being attributed as quasi-human, should AI and robots be granted full citizen rights – such as voting rights? Should we reap the economic benefits of AI and have a democracy with a diversified populace of human enslaving robots? Is feelingless AI vulnerable and prone to become enslaved or will the computational power and energetic capacities of robots outperform and enslave humankind? Given the humane fallibility and biases, would a rational AI agent make better democratic choices? Should AI therefore be used for governance as for being insusceptible to bribery and fraud, or does the installment of algorithms in leadership positions imbue dangers to humankind (Puaschunder forthcoming b)? How should we organize the human-led evolution of AI production and the blend of human-AI enhanced workforce? And what is it that makes human humane in the artificial age?

Future research should investigate the economic, legal and societal impact of AI from an ethical perspective. The current legal status of robots being referred to as quasi-human will be discussed as for implications to society and democracy.

5. Discussion and Future Research Endeavours

Importance of freedom for human beings is an eternal and global imperative, which highlights the relevance of future research. The power divide imperatives between human and AI robotics should become subject to scrutiny in light of historic examples of early forms of ancient Athenian democracy and Roman Law civilization that legally allowed for slavery but also with an eye on French Napoleonic code civil that established a supremacy of a man over his wife and children with attention to possession and property.

With the introduction of robots in our contemporary society, humanness will be highlighted as key to future success in the age of AI and automated control. The proposed research will thereby draw from behavioral human decision making insights and evolutionary economics in order to outline what makes human humane and how human decision making is unique to set us apart from AI rationality. AI will be argued to bevalue humanness and improve the value of human-imbued unique features.

The findings promise to hold novel insights on future success factors for human resource management but also invaluable contributions for the successful introduction of AI and digital humanities in modern democracies and societies. Innovation's razor's edge is thereby aimed to be ennobled by ethical imperatives as old as humankind civilization.

References

- Puaschunder, J.M. 2010. *On corporate and financial social responsibility*. Unpublished Doctoral Thesis. Vienna: University of Vienna, Faculty of Psychology.
- Puaschunder, J.M. 2017a. “Nudging in the digital big data era.” *European Journal of Economics, Law and Politics* 4(4): 18-23.
- Puaschunder, J.M. 2017b. “Nudgital: Critique of a behavioral political economy.” *Archives of Business Research* 5(9): 54-76.
- Puaschunder, J.M. 2017c. “Nugitize me! A behavioral finance approach to minimize losses and maximize profits from heuristics and biases.” *International Journal of Management Excellence* 10(2): 1241-1256.
- Puaschunder, J.M. 2017d. “The nudging divide in the digital big data era.” *International Journal of Research in Business, Economics and Management* 4(1):1-12, 49-53.
- Puaschunder, J.M. 2018a. *A utility theory of privacy and information sharing*. Social Science Research Network working paper. Retrieved at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3197744
- Puaschunder, J.M. 2018b. *Artificial Intelligence Ethik*. Social Science Research Network paper. Retrieved at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3137926.
- Puaschunder, J.M. 2018c. *On the collective soul of booms and busts*. Retrieved at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2799646.
- Puaschunder, J.M. 2019a. *Artificial diplomacy: A guide for public officials to conduct artificial intelligence*. Social Science Research Network working paper. Retrieved at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3376302.
- Puaschunder, J.M. 2019b. “Artificial Intelligence evolution: On the virtue of killing in the artificial age.” *Journal of Sociology* 3(1): 10-29.
- Puaschunder, J.M. 2019c. “Artificial Intelligence market disruption.” *Proceedings of the International RAIS Conference on Social Sciences and Humanities* at Johns Hopkins University, Montgomery County Campus, pp. 1-8, Rockville, MD, United States, June 10-11.
- Puaschunder, J.M. 2019d. “Dignity and utility of privacy and information sharing in the digital big data age.” *International Journal of Commerce and Management Research* 5(4): 62-70.
- Puaschunder, J.M. 2019e. *Intergenerational equity: Corporate and Financial Social Responsibility*. New York, NY: Edward Elgar.
- Puaschunder, J.M. 2019f. “On Artificial Intelligence’s razor’s edge: On the future of democracy and society in the artificial age.” *Journal of Economics and Business* 2(1): 100-119.
- Puaschunder, J.M. 2019g. “On Artificial Intelligence’s razor’s edge: On the future of democracy and society in the artificial age.” *Scientia Moralitas: International Journal of Multidisciplinary Research* 4(1): 51-72.
- Puaschunder, J.M. 2019h. *Revising growth theory in the artificial age: Putty and clay labor*. Princeton, NJ: Princeton University working paper.
- Puaschunder, J.M. 2019i. Stakeholder perspectives on Artificial Intelligence (AI), robotics and big data in healthcare: An empirical study. *Report on behalf of the European Union Parliament European Liberal Forum*.
- Puaschunder, J.M. 2019j. “Towards a utility theory of privacy and information sharing and the introduction of hyper-hyperbolic discounting in the digital big data age.” In E. Idemudia (Ed.), *Handbook of research on social and organizational dynamics in the digital era*, pp. 157-200, Hershey, PA: IGI.
- Puaschunder, J.M. 2019k. “Towards a utility theory of privacy and information sharing and the introduction of hyper-hyperbolic discounting in the digital big data age.” *Research Association for Interdisciplinary Studies Collective Volume: Economic Science*, pp. 4-46.
- Puaschunder, J.M. 2019l. “Towards a utility theory of privacy and information sharing: The introduction of hyper-hyperbolic discounting.” *International Journal of Strategic Information Technology and Applications (IJSITA)* 10(1): 1-22.
- Puaschunder, J.M. (forthcoming a). *Artificial Intelligence Ethics*.
- Puaschunder, J.M. (forthcoming b). “Dignity and utility of privacy and information sharing in the digital big data age.” *Humanistic Management Journal*.
- Puaschunder, J.M. (forthcoming c). The legal and international situation of AI, robotics and big data with attention to healthcare. *Report on behalf of the European Union Parliament European Liberal Forum*.
- Puaschunder, J.M. (forthcoming d). “Towards a utility theory of privacy and information sharing and the introduction of hyper-hyperbolic discounting in the digital big data age.” *Encyclopedia of Information Science and Technology*.