

# **Blind Spots in AI Ethics and Biases in AI governance**

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## **Abstract**

There is an interesting link between critical theory and certain genres of literature that may be of interest to the current debate on AI ethics. While critical theory generally points out certain deficiencies in the present to criticize it, futurology, and literary genres such as Cyber-punk, extrapolate our present deficits in possible dystopian futures to criticize the status quo. Given the great advance of the AI industry in recent years, an increasing number of ethical matters have been raised and debated, usually in the form of ethical guidelines and unpublished manuscripts by governments, private sector, and academic sources. However, recent meta-analyses in the field of AI ethics have raised important questions such as: what is being omitted from published ethical guidelines? Does AI governance occur inclusively and diversely? Is this form of "ethics", based on soft rules and principles, efficient? In this study, I would like to present aspects omitted or barely mentioned in the current debate on AI ethics, and defend the point that applied ethics should not be based on creating only soft versions of real legislation, but rather on criticizing the status quo for everything of value that is disregarded.

**Keywords:** machine ethics, AI ethics, AI governance, ethical guidelines, ethical principles

## **Highlights**

- Ethical principles should not be used as soft policies for the AI industry.
- Current ethical guidelines omit several social and ecological problems.
- The role of applied ethics in AI is to reveal valuable issues that are disregarded.

## **I. Critical Theory and Cyberpunk**

With the development of Artificial Intelligence (AI), more and more intelligent systems are becoming a part of, and in a way helping us shape, our society, with tasks and jobs formerly performed by us some years back is now fully delegated to autonomous intelligent systems (Maynard, 2015). The so-called 4th Industrial Revolution is the culmination of the digital revolution, where technologies such as robotics, nanotechnology, genetics, and artificial intelligence now promise to transform our world and the way we live (Mulhall, 2002), and at the present moment the most accessible and massively used technology in our society, of those mentioned above, is AI. One of the big differences between this present moment of technological modernization when compared to those of the past is that now machines are progressively surpassing our cognitive capabilities in several areas. Given the size and

complexity that our society has achieved human beings alone are not able to cope with the demands of certain processes vital to our civilization, and we increasingly rely on the help of intelligent autonomous systems.

We may say, perhaps without many controversies, that our current society cannot exist in its present form without the help of such technologies. Samuel Butler (1863), in his work entitled “*Darwin Among the Machines*”, questioned our “quiescent bondage” to technology arguing that one day we would reach the point that society would no longer be able to separate itself from its technological creations, because it would be equivalent to the suicide of the status quo, in Butler's words: “[...] this at once proves that the mischief is already done, that our servitude has commenced [...]”. In the end, whether all the technological modernization we experience will result in a future where our values will be preserved is still a question with no answer. However, what history can teach us is that progress has rarely been intentionally slowed down in the name of preserving what we call values. What usually occurs is a change in what we as individuals and society value. The uncertainty we have concerning the type of future we are creating has raised several critics and warnings from areas such as sociology, literature, and philosophy.

Contemporary critical theory, with its origins in sociology as well as literary criticism, proposes to conduct a reflexive and critical assessment of society and culture to reveal and challenge certain deficits in their underlying power structures. There is an interesting relationship between the criticism made by contemporary critical theorists, like Craig Calhoun (1995), Paul Virilio (1997), and Hartmut Rosa (2010), and other forms of critical literature. I point that while contemporary critical theory focuses on the past and the present to point out failures and deficits in our society, another possible form of criticism involves extrapolating the future to criticize the present. Cyberpunk, a subgenre of science fiction, seeks to show how our technological advances can lead our society to dystopian futures. This form of literature originated between the 60s and 70s of the 20th century, with authors such as Philip K. Dick (*Do Androids Dream of Electric Sheep?*), John Brunner (*Stand on Zanzibar*) and William Gibson (*Neuromancer*). During the '80s and '90s, globalization fueled by an increase of neoliberal political and economic forces, combined with the technological advances characteristic of the late twentieth century (internet, AI, robotics, virtual reality, genetics) gave rise to a form of literature which in the future would gain popularity in

other cultural niches, all aiming to criticize the status quo. Fredric Jameson, a literary critic, and Marxist theoretician define cyberpunk as: “[...] the supreme literal expression, if not of postmodernism, then of late capitalism itself” (Jameson, 1991, p. 417). Similar to Jameson, the sociologist Jean Baudrillard was particularly sagacious in his critique of how the media revolution and social acceleration completely changed our social structure. For Baudrillard (1994), given the rapid pace of social and cultural transformation we are experiencing, sociological studies are increasingly approaching what we call science fiction, where we progressively need to anticipate social change while it is happening. So we can think of cyberpunk as a break between the division of what we call social/cultural theory and science fiction, similar to what we now call Futurology.

The influence of cyberpunk finally reached philosophy in areas such as politics, metaphysics, and ontology, with philosophers like Mark Fisher (a.k.a, k-punk) and Nick Land. Writer and activist Mike Davis in his book “*Beyond Blade Runner: Urban Control, The Ecology of Fear*” (1992, p.3) states: “[...] extrapolative science fiction can operate as a pre-figurative for social theory while serving as political opposition to the cyber-fascism lurking on the next horizon”. My point is that the type of criticism made by cyberpunk is similar to other forms of criticism found in social theory and philosophy, as, for example, a critique of the anthropomorphic concept that divides areas such as philosophy of mind and AI. The term cyborg (half-organic, half-machine) can be understood as a critique of the anthropomorphic idea of humanity, of agency, of intelligence, and mind, opposing the idea of human essence, something that we can also understand as a postmodernist idea. According to Haraway (1991) in her work “*Simians, Cyborgs and Women: The Reinvention of Nature*”, the idea of cyborg rejects the divisions between concepts such as human, animal, and machine, and rejects the notion of human essence, something that Haraway uses in her feminist philosophy.

What we see today, especially in the context of machine ethics, is a conscious response to the postmodern critique of cyberpunk, that is: how can we avoid the blind march into the dystopian future? New forms of philosophical thinking, like certain strands of the Transhumanist movement, such as Sigulitarianism (Bostrom, 2002; Kurzweil, 2005; Chalmers, 2010; Sotala, 2018), critically debate the possible futures that our social and technological acceleration may be co-creating, and how we can aim for integration and human flourishing rather than more unwanted possibilities. In this context, the premise

for security issues involving our technological advance is based on an idea of a negative utopia, in the words of Robert Tally:

First of all, the utopian impulse must be negative: identify the problem or problems that must be corrected. Far from presenting an idyllic, happy and fulfilled world, utopias should initially present the root causes of society's ills [...] to act as a criticism of the existing system (Tally, 2009, p. 115).

We can thus establish the critique proposed by critical theory, Singulitarism, machine ethics, AI safety research, and cyberpunk itself as a form of the negative utopian impulse, or a postmodern critique of the present, using our possible future as a research subject. In the case of machine ethics, and more specifically, IA ethics, there are several open problems related to how AI may affect our society, like mass technological unemployment (Frey & Orsborne, 2013), privacy and security of personal data (Abadi et al, 2016), the use of autonomous lethal weapons (Docherty, 2012), the social, political, and ecological side effects of AI (Casilli, 2017), and how polarized and biased the current landscape of machine ethics and the IA industry in general is (Hagendorff, 2020). In this study, I will try to present some of the main issues under discussion in AI ethics, and try to expose which points the literature addresses, and which it omits.

## **II. Safety Issues and AI Ethics**

Given the transformative power of AI, whether for the benefit or detriment of our society, it would be extremely important that there be a consensus on the standards and guidelines that regulate such technologies. The field of AI safety and ethics is an emerging research area that has gained popularity in recent years, where several organizations, private, public and governmental, have published guidelines proposing ethical principles for improving the regulation of autonomous intelligent systems (Russell, Dewey, & Tegmark, 2015; Amodei et al, 2016; Boddington, 2017; Goldsmith & Burton, 2017; Greene, Hofman, & Stark, 2019).

Jobin, Ienca, & Vayena (2019) in their meta-analysis mapped the countries responsible for producing the existing ethical guidelines for AI regulation, their research identified 84 documents containing ethical guidelines for intelligent autonomous systems, divided by eleven ethical principles: transparency, justice & equity, non-maleficence, responsibility, privacy, beneficence, freedom & autonomy, trust, dignity, sustainability,

and solidarity, with convergence around five principles; transparency, justice, non-maleficence, responsibility, and privacy. The authors also identified an 88% increase in publications involving machine ethics since 2016, their research also showed that most of the published documents come from private institutions (22.6%), government organizations (21.4%), and academic and scientific research institutions (10.7%) other documents having varied origins. Hagendorff's (2020) meta-analysis of the main ethical guidelines published in the last five years, where the main ethical principles cited are, similar to Jobin et al findings, accountability, explainability, and privacy, appearing in about of all guidelines. These principles can be described as follows:

- *Accountability*: how to make the AI industry accountable for its technologies. For example, in the context of autonomous vehicles, what kind of guarantees and responsibilities should companies developing autonomous vehicles offer to society (Maxmen, 2018)?
- *Explainability*: transparency, interpretability, these concepts highlight one of the greatest deficits in contemporary machine learning techniques. That is, all forms of machine-learning (bottom-up) systems are black boxes, and it is very difficult to explain the internal process of these types of AI systems (Mittelstadt, Russell, & Wachter, 2019);
- *Privacy*: An interesting analogy with the second industrial revolution is that data is like coal for AI, and the big technology companies, like Google, Amazon, and Facebook, are the coal mines of today. The abundance of data that we produce daily ensures an inexhaustible source of information for the training of AI systems. However, the use of personal data without consent is one of the main preoccupations found in the literature involving AI ethics (Ekstrand, Joshaghani, & Mehrpouyan, 2018).

Jurić, Šandić, & Brcic (2020) conducted a similar study, a quantitative bibliographic survey on the recent expansion of AI safety research and its main topics of interest, the authors reported an increase in the number of publications involving IA safety since 2003, with a large explosion of interest starting at 2010. The common motivation for short and long-term interests in AI safety and AI ethics is the same: how to make the interaction between humans and AI safe and beneficial? And this is what the contemporary debate on machine ethics has delimited itself to, the problems that arise among the interaction between humans and autonomous systems. In it, we find

questions like how to make agents operating by machine learning techniques like reinforcement learning corrigible (Soares et al, 2015; Turner et al, 2020)? How can we minimize unwanted side effects when the deployment environment of our AI system is different from its training environment (Amodei et al, 2016)? How to align the terminal goals of AI systems with our interests and values (Soares, 2016; Russel, 2019)? And even how to integrate human society in a post-Singularity era (Chalmers, 2010).

Interesting research in machine ethics, with a more practical and applicable aspect in the short term, has been done in the investigation of preferences involving moral dilemmas and autonomous cars. Given the diversity of our global moral landscape, and recognizing that ethical structures are not static but dynamic, the study of human preferences and their transcultural differences and similarities is a very important topic for the development of policies aiming at regulating the use of AI. The Moral Machine experiment conducted by Awad et al (2018) is an online survey<sup>1</sup> designed to explore moral dilemmas faced by autonomous vehicles, using the formal framework of the well-known Trolley Problem. The platform achieved a very large reach, gathering 40 million decisions, in ten languages, from 10 million people in several different countries. In the experiment global moral preferences were summarized in nine different groups, which characterize certain decision-making patterns, like a preference for inaction, preferring to save women over men, preferring to save more people, etc.

Using the individual variations in preferences based on the demographic data of the participants, transcultural ethical variations were observed, which were grouped into three major groups of countries: *Eastern* (mainly formed by Islamic and Confucian countries and cultures), *Western* (formed by Protestant, Catholic, and Orthodox countries in Europe), and *Southern* (formed by Latin American countries in Central and South America and also several African countries). The distributions between the three groups revealed marked differences, for example, the Eastern group was characteristic in preferring to save more lives and to spare pedestrians over drivers. The Western grouping had a strong preference for inaction, sparing the young and the physically fit. Meanwhile, the countries belonging to the Southern grouping showed a stronger preference for saving women when compared to the other groupings (Awad et al, 2018). Awad et al (2020) showed another result collected from the Moral Machine platform.

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<sup>1</sup>Retrieved from <https://www.moralmachine.net/>

According to the authors, the new study points out that the relational mobility of a country (how easy it is for individuals in a given community to create new bonds and relationships) influences the way moral dilemmas are evaluated and judged, e. g: societies with low relational mobility present a much greater rejection of the utilitarian concept of “*sacrifice for the greater good*”.

Both studies conducted by Awad et al (2018, 2020) serve as strong evidence in favor of the argument that ethical principles cannot be based on a single vision (Western, Eastern, Eurocentric, etc) of AI ethics. But is there a global and democratic consensus of such regulatory principles? What such ethical agendas are omitting from the debate? And perhaps more importantly, are such ethical calls being effective in regulating the use and development of AI? Hagendorff (2020) points out in his meta-analysis that the main principles mentioned in the most recent studies seeking to establish ethical guidelines for the regulation of AI already have a considerable technical effort made to ensure aspects such as transparency, impartiality, and preservation of privacy. However, several other issues are still not mentioned by even half of the published ethical guides. According to Hagendorff, of the 22 studies evaluated only 9 mention labor rights and technological unemployment, 8 studies mention the weaponization of AI and the new arms race, while only two studies mention the problem of lack of diversity in the development of aligned AI and problems related to sustainability, such as energy, depletion of natural resources and click work.

In the following, I will review four principles that are barely addressed by the literature of machine ethics: The hidden ecological, political and social costs involving the development of AI; the new arms race that seeks to develop intelligent autonomous weapons; technological unemployment and inequality of income distribution; and finally, the lack of diversity present both in the AI industry and in the development of ethical guides for AI.

### **III. Hidden costs and side effects**

According to Jobin et al (2019), the under-representation of ethical principles such as sustainability reinforces the idea that the humanitarian cost of anthropogenic climate change is being neglected by the least affected countries, i.e. the most developed. In fact, very few ethical guidelines mention the social and ecological costs associated with our current technological-AI industry. Perhaps this is due to the fact that it is *this*

industry that has a high ecological and social cost associated with it. For example, the extraction of fundamental minerals for the construction of microelectronic components, such as coltan, is known to violate human rights such as child labor and systematic exploitation of the population living in developing countries (Montague, 2002). In addition to the humanitarian issues related to the mining of coltan, the mining process itself can be dangerous for the environment in several ways, generally polluting ecosystems close to the mining sites (Taffel, 2012).

Another humanitarian problem involving labor exploitation occurs with click workers. Click work is a type of essential task for training AI systems, generally machine learning requires large amounts of labeled data to become proficient in some tasks. Thus, humans are hired to do extremely easy digital tasks (such as image classification) (Irani, 2016; Silberman et al, 2018). Typically click working does not offer minimum working wages, paying less than 2 dollars per hour, and sometimes even charging commissions for each transaction made. Also, click workers communally have difficulty receiving payment, getting technical assistance, or any other kind of support from the companies they work for (Harris, 2014).

For those who follow the recent advances in the field of AI, it is known that one of the major paradigms in the field today involves natural language processing (NLP), and the use of a new form of architecture called “*Transformer*”, proposed by Vaswani et al (2017). In June 2020 OpenAI launched GPT-3 (Generative Pre-training Transformer 3), a transformer with 175 billion language parameters. In their study the authors showed the capacity of GPT-3 to generate samples of texts such as poems, articles, and news, from which human evaluators had difficulty, or were unable, to distinguish from articles written by humans (Brown et al, 2020). Brown et al (2020) provide a preliminary analysis in their study, where they report a series of limitations and unethical or unsafe behaviors present in their model. In it, the authors demonstrate several biases present in GPT-3, reminiscent of Microsoft's “Tay bot” case (Wolf, Miller, & Grodzinsky, 2017). Besides, there is the potential for malicious application of this type of technology, e. g., in generating fake news for mass disinformation or generating bots on platforms such as Twitter to make it more biased. According to Hagendorff's meta-analysis (2020), very few ethical guidelines mention the problem of social engineering through the use of AI.



It is no secret that political leaders make use of “political bots”, i. e., automated text generators that imitate real users with political purposes. Howard & Kollanyi (2016) showed in their study, aimed at investigating the use of political bots on Twitter during the UK referendum on EU membership (#strongerin versus #brexit), that less than 1% of account samples (bots) generated almost a third of all messages about the referendum. In Brazil, the use of computational propaganda and political bots has been detected during the impeachment of former president Dilma Rousseff (Arnaudo, 2017), and more currently, according to Bot Sentinel<sup>2</sup>, one of the most used hashtags by bots on Twitter is “#BOLSONAROORGULHODOBRASIL”, in 2nd place (in 1st place we find the hashtag “#TRUMP2020”). Monteiro et al (2018) argue that the scarcity of labeled data sets in Portuguese makes it difficult to train classifiers to detect fake news, something that can be generalized to any language that doesn't have large labeled data sets.

Another potential risk rarely mentioned by published ethical guidelines is the creation of advanced artificial intelligence (AGI or Singularity). As much as a large part of the scientific community working on AI development discards or ignores this possibility, it is important to emphasize that there is another considerable part of the scientific community, represented by research centers such as the Centre for the Study of Existential Risk in Cambridge, the Future of Life Institute in Boston, and the Future of Humanity Institute in Oxford, which raises the importance of this debate for the long-term development of beneficial AI (Good, 1965; Kurzweil, 2005; Bostrom, 2014; Horvitz, 2014; Barrett & Baum, 2017; Tegmark, 2017; Sotala, 2018; Russel, 2019).

#### **IV. AI arms race**

The Armed Conflict Location & Event Data Project (ACLED) is an interactive online infographic, constantly updated, which shows which countries there are armed confrontations between state forces and civil/rebel groups. It shows how the occurrence of conflicts in our world is something extremely common<sup>3</sup>. Even during the current pandemic caused by the new coronavirus, COVID-19, there are several emerging crises occurring in places like the Sahel, Mexico, Yemen, India, Somalia, Iran, Afghanistan, Ethiopia, Lebanon, and even in the United States with the latest riots against police

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<sup>2</sup> Retrieved from <https://botsentinel.com/trending-topics/top-hashtags>

<sup>3</sup> Retrieved from <https://acleddata.com/dashboard/#/dashboard>

violence and structural racism (Nsaibia et al., 2020). Adding to our current scenario, since 2010 the major superpowers of global society are engaged in an arms race to develop the best AI-equipped military forces (Geist, 2016; Maas, 2019; Roff, 2019), something that is very overlooked by the current debates on AI regulation. At first glance, the militarization of AI seems to be contrary to the entire list of ethical principles produced by the industry, academia, and governments.

Paradoxically, it is these same governments, allied with the AI industry and academia, that keep the development of autonomous intelligent weapons an area of active research and development, something that goes against any concept of beneficial/pro-social AI (Floridi et al, 2018). Several countries already have programs for the development of weapons endowed with AI, Garcia (2019) notes in his review of autonomous weapons research and development that at least seven countries: the United States, China, Russia, the United Kingdom, France, Israel, and South Korea, stand out for their substantial engagement in developing intelligent autonomous weapons. The United States is the largest investor in the military industry worldwide, according to its Department of Defense<sup>4</sup> in 2018 was launched the Joint Artificial Intelligence Center (JAIC), for accelerating the development of AI capabilities in military systems. One of the projects currently being developed by the Pentagon and the Defense Advanced Research Projects Agency (DARPA) its Project Maven, where machine learning is used to develop better techniques to distinguish people and objects in drone videos, which makes drones increasingly more capable of executing attacks on specific targets (Crofts & van Rijswijk, 2020).

Following the United States, China is the second-largest global investor in IA. Taking advantage of its internal coordination between the private sector and governmental agencies, encouraged by the creation of the Military-Civil Fusion Development Commission, established in early 2017 under the leadership of Xi Jinping<sup>5</sup>, China has gradually increased its investments in the AI industry, intending to become the world's

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<sup>4</sup> Summary of the 2018 Department of Defense Artificial Intelligence Strategy: harnessing AI to advance our security and prosperity, Washington, DC, pp. 7-8, 2018. Retrieved from <https://media.defense.gov/2019/Feb/12/2002088963/-1/-1/1/Summary-of-DoD-AI-Strategy.pdf>

<sup>5</sup> Xi Jinping Presides Over the First Plenary Session of the Central Military-Civil Fusion Development Committee. Xinhua, June 20, 2017. Retrieved from [http://news.xinhuanet.com/politics/2017-06/20/c\\_1121179676.htm](http://news.xinhuanet.com/politics/2017-06/20/c_1121179676.htm)

leading AI developer by 2030<sup>6</sup>. According to Elsa Kania in her review of the available literature on the military expansion of the People's Liberation Army (PLA) involving the use of AI:

The PLA may have the capability to leverage AI to achieve an advantage on the future battlefield [...] As the United States and China compete to innovate in this new technological domain, the asymmetries between their approaches could result in unexpected, destabilizing dynamics. In practice, even potential differences between U.S.- and Chinese-developed AI – resulting from the data used to train the underlying algorithms and the associated parameters – could cause unforeseen battlefield interactions or misperceptions (Kania, 2017, p. 44).

Besides its military program, China has a policy of mass surveillance on its territory, supervising the lives of virtually all Chinese citizens. The monitoring carried out by the Chinese government uses more than 200 million digital cameras connected to the Internet, where intelligent facial recognition systems aided by other types of technology, such as surveillance drones, autonomous police, and large amounts of data acquired on social media platforms, guarantee the government an extremely robust system to monitor its citizens. In 2015 China has declared its intention to build an omnipresent national video surveillance network by 2020, fully connected to the Internet, operating uninterrupted, to ensure public safety (Mozur, 2018).

In addition to the United States and China, other countries are also financing enterprises involving the militarization of AI technology. Russia in its military intervention in the Syrian Civil War used small autonomous vehicles for intelligence, surveillance, and reconnaissance missions (Sychev, 2018), and in 2017 Russia refused the proposed UN ban on autonomous weapons, declaring that restrictions would be detrimental to innovation<sup>7</sup>. Autonomous weapons also allow a new form of "war on terror," where remote attacks can be made on dubious allegations of "anticipated self-defense", as occurs in several regions of the Middle East. Haas & Fischer (2017) also argue that

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<sup>6</sup> CCP State Council Releases the "National Innovation-Driven Development Strategy Guidelines. Xinhua, May 19, 2016. Retrieved from [http://news.xinhuanet.com/politics/2016-05/19/c\\_1118898033.htm](http://news.xinhuanet.com/politics/2016-05/19/c_1118898033.htm)

<sup>7</sup> Engineering and Technology. Russia rejects potential UN 'killer robots' ban, official statement says. Published Friday, December 1, 2017. Retrieved from <https://eandt.theiet.org/content/articles/2017/12/russia-rejects-potential-un-killer-robots-ban-official-statement-says/>

technologies such as those developed by Project Maven have enabled further expansion of targeted assassinations, something that could inevitably fall into the hands of terrorist groups like the Islamic State.

Given all the aspects mentioned, and many others that have not been covered, it is impressive that, according to Hagendorff (2020), less than half of the ethical guides published in the last five years mention the use of AI for warfare.

## **V. Wealth Inequality**

The automation of processes that were formerly carried out by human individuals is one of the main sources of technological unemployment in the last two centuries (Peters, 2017). Many jobs and forms of occupation have not lasted for more than a century in our society, such as telephone switchboard operators, typists, public streetlamp lifts, night-soil collectors, elevator operators, ice cutters, furnace burners, and many other labor occupations. Nowadays, with the use of AI, companies can drastically reduce their necessity for human labor to lower their costs. However, the adoption of this management policy has two obvious consequences:

- i. wealth accumulation for those individuals who own the companies oriented to AI development;
- ii. an unemployed population replaced by intelligent autonomous systems would find itself without any source of income.

This reality is better summarized by Erik Brynjolfsson's<sup>8</sup> in the following quote: *"It's one of the dirty secrets of economics: technology progress does grow the economy and create wealth, but there is no economic law that says everyone will benefit"*. Oxford University research conducted by Frey and Osborne (2013) estimated the probability of computerisation for 702 detailed occupations in the US, resulting in estimates around 47% for these occupations being displaced by technology over the next 20 years. As we mentioned before, large AI companies pay pennies for the kind of essential work that makes machine learning efficient and valuable (clickwork<sup>9</sup>), which demonstrates a

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<sup>8</sup> Interview by Rotman, D. (2013). How technology is destroying jobs. [online] MIT Technology Review, June 12, 2013. Retrieved from <https://www.technologyreview.com/2013/06/12/178008/how-technology-is-destroying-jobs/>

<sup>9</sup> Harris, M. (2014, December 3). Retrieved from <http://bit.ly/2EcZvMS>

certain indifference on the part of such companies with notions such as economic egalitarianism and income equality. Recently, in May 2020, more than 90 university professors were dismissed from the Laureate group, responsible for universities such as Anhembi Morumbi, the FMU University Center, and other universities in Brazil. The dismissed professionals were all responsible for teaching subjects in a distance education format. The Laureate group replaced these professionals for “monitors”, and autonomous tools for proofreading. It is important to point out that these dismissals were made at a critical moment, during the pandemic of the new coronavirus (Domenici, 2020). The COVID-19 pandemic is helping to accelerate job losses in other sectors, e. g., call centers, a sector that is already being automated at a fast pace during the pandemic had to close their workplaces due to unsafe working conditions. At the same time, these services had a significant increase in customer demand, this took several companies to intensify the use of chatbots and AI assistants (Hao, 2020).

Regarding the inequality of wealth generated by the AI industry: how can we distribute the new goods and services generated by this economy sustained by intelligent automation? One solution to this problem would be the institution of UBI's (Universal Basic Income)(Russell et al, 2015), but although it provides a solution to the unemployment issue, the mass institution of UBI can generate other types of problems. Justin Gest (2016) in his book “*The new minority: White working-class politics in an age of immigration and inequality*” describes how job losses are extremely correlated with indices of suicide, divorce, homicide, theft, and other social problems related to marginalization and exclusion. A more recent proposal was suggested by O'Keefe et al (2020), called by the authors “The Windfall's Clause”. The clause is an *ex ante* legal commitment where companies in the area of AI development commit to donating a significant amount of any extremely large profit (extremely large being something greater than, or equal, to gross world product). The clause guarantees that any large windfall profit generated, e. g., by the development of AGI, will be used in part to benefit mankind. Similar to a tax collection, although it would not only benefit the country of the company in question, the Windfall Clause is a legal tool that provides companies interested in developing advanced AI a way to show their commitment to beneficial and pro-social values. According to the authors of the clause, the motivation for this project is:

- Reduce the effects of technological unemployment;
- Mitigate income inequality;
- Stabilize social relations between AI companies and the global community;
- Strengthen pro-social norms that encourage philanthropic behavior.

however, we can also think that given the current state of AI ethics, proposals such as “UBI’s for all” and the “Windfall clause” are nothing more than ideals that will only be mentioned as publicity stunts, and not as strategies to reverse real problems. Besides this, the question of whether individuals would be happy and fulfilled if they didn’t have to contribute/work for society is a complex existential question. For writers like Voltaire<sup>10</sup> “*Work saves us from three great evils: boredom, vice, and need*”, and Dostoevsky<sup>11</sup> the abolition of human labor will bring flourishing to human society is, at best, a mistaken assumption.

## **VI. Lack of diversity on AI ethics: bring the rest in!**

A report titled “The Global IA Agenda” by MIT Technology Review Insights<sup>12</sup> collected data showing how the use of technologies involving IA is growing in the Latin American continent. According to the report, almost 80% of large Latin American companies use AI in some form, and more than half of the interviewees (55%) cite customer service (with chatbots) and recommendation systems used in e-commerce as their main applications. However, one of the main limitations that respondents reported was the limited participation of Latin America in the development of global governance structures involving machine ethics and AI. The dominance of Europe and North America in the development of such guidelines makes it difficult to integrate such structures in the Latin American context. Carman and Rosman (2020) raised the same

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<sup>10</sup> Voltaire. *Candide*. Published by Cramer, Marc-Michel Rey, Jean Nourse, Lambert, and others. 1759.

<sup>11</sup> [...]I ask you: what can be expected of man since he is a being endowed with strange qualities? Shower upon him every earthly blessing, drown him in a sea of happiness, so that nothing but bubbles of bliss can be seen on the surface; give him economic prosperity, such that he should have nothing else to do but sleep, eat cakes and busy himself with the continuation of his species, and even then out of sheer ingratitude, sheer spite, man would play you some nasty trick. He would even risk his cakes and would deliberately desire the most fatal rubbish, the most uneconomical absurdity, simply to introduce into all this positive good sense his fatal fantastic element. It is just his fantastic dreams, his vulgar folly that he will desire to retain, simply in order to prove to himself, as though that were so necessary, that men still are men [...] (Dostoevsky, 1992 (1864), Chapter 8, p. 21).

<sup>12</sup> MIT Technology Review Insign. (2020). The global AI agenda: Latin America. The global AI agenda series. Retrieved from <https://mittrinsights.s3.amazonaws.com/AIagenda2020/LatAmAIagenda.pdf>

question, however, focused on the African continent. For these authors, the use of technologies involving AI and the establishment of foreign governance structures is a delicate issue in the African context, given the long history of the imposition of external values on the continent. To preserve the cultural and moral pluralism that will guide the ethical issue involving AI, emerging countries must be given a voice in this global debate, yet this is not the stage that global society finds itself at.

In Jobin et al (2019) review, in the 84 exhibited documents none had any link to any organization in South American, Africa or the Middle East, showing that countries corresponding to more than half of the globe are excluded from the debate about the ethical principles that should guide the future transformation of our society. Also in Hagendorff (2020) meta-analysis, none of the recently published ethical guidelines was originated from developing countries, another trend that Hagendorff points out is the lack of representation of women in the ethical debate on AI (and indeed in the entire AI industry). Discarding the ethical guidelines proposed by the research institute AI Now<sup>13</sup>, an organization deliberately led by women, the proportion of female and male authors is 31,3%.

Garcia (2019) also highlights the fact that virtually the entire southern hemisphere is under-represented in the IA governance debate. And since most developing countries do not yet have an AI industry capable of competing with more developed countries, the Global South finds itself depending on the goodwill of other countries, in a kind of technological colonialism. According to Eugenio Garcia, senior advisor to the President's Office of the United Nations General Assembly:

[...] Global South leaders and scholars cannot afford to stand idle while others make decisions and allow the militarization of AI to go deeper, unimpeded, and ever more deadly. Developing countries should not be relegated to the role of spectators, technology-takers, or (even worse) victims. It is incumbent upon all states to step forward and find rational pathways to promote safe, beneficial, and friendly AI, rather than dangerous, inimical, and bellicose AI (Garcia, 2019, pp. 19-20).

A study conducted by ÓhÉigearthaigh et al (2020) also focuses on the under-representation of developing countries and the current tension among the leading

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<sup>13</sup> Retrieved from <https://ainowinstitute.org/>

countries in the technological race, North America, and Europe representing the West versus East Asia with China as the major protagonist. The authors highlight two major possible causes of this tension between West and East: the competitive culture that defines the whole concept of “technological race” rather than a cooperative culture, the philosophical differences between Western and Eastern cultures, which causes a different perception of values and ethical principles. I endorse the recommendations that ÓhÉigeartaigh et al do at the end of their study, pointing that Academia has a key role to play in promoting greater intercultural cooperation on issues related to governance and ethics of AI. These recommendations are:

- Demand that research agendas involving machine ethics and AI governance be the fruit of international and intercultural cooperation;
- Translate the existing literature, especially the main documents related to AI ethics and governance, so that the language barrier doesn't interfere with intercultural participation in this debate;
- Ensure that major research conferences on AI and Machine Ethics are held in alternative continents and countries;
- Establish exchange programs for students, such as Ph.D. and post-doctoral students, to encourage intercultural collaboration and cooperation among researchers from different cultures.

## **VII. Is AI ethics efficient?**

Would all these published research agendas and ethical guidelines be useful for regulating the AI industry? For Ryan Calo (2017) ethical guidelines when integrated into institutions end up serving only as a marketing strategy, failing to mitigate real risks and impose real consequences when such principles are transgressed, As Calo puts it: “[...] Several efforts are underway, within the industry, academia, and other organizations, to sort out the ethics of AI. But these efforts likely cannot substitute for policymaking” (Calo, 2017, pp. 407-408). McNamara, Smith, & Murphy-Hill (2018) explored in a controlled study whether ethical guidelines have any effect on the decision making of software engineers. In their research the authors evaluated 63 software engineering students and 105 professional software developers, looking at whether the ethical guidelines of the Association for Computing Machinery[1] (ACM) would have any influence on moral dilemmas related to software production. The question the authors sought to answer was: Does the presence of a code of ethics influence software-



related ethical decisions? And the answer was: “Despite its stated goal, *we found no evidence* that the ACM code of ethics influences ethical decision making” (McNamara et al, 2018, p. 4).

Several studies also support the idea that ethical guidelines have little or no effect on the decision making of practitioners from many different fields (Brief et al, 1996; Cleek & Leonard, 1998; Lere & Guamnitz, 2003; Osborn et al, 2009). In the context of AI ethics, what we realize is that ethics is being poorly used, in the sense that the purpose of ethics shouldn't be to create soft policies that serve to replace real legislation. This idea resonates with several criticisms raised against the current state of AI ethics: Jobin et al (2020, p. 389), “Specifically, the private sector's involvement in the AI ethics arena has been called into question for potentially using such high-level soft policy as a *portmanteau to either render a social problem technical or to eschew regulation altogether*”; Hagendorff (2020, p. 99), “AI ethics—or ethics in general—*lacks mechanisms to reinforce its own normative claims*”; And Rességuier & Rodrigues (2020, p. 1), “Ethics has great powerful teeth. Unfortunately, we are barely using them in AI ethics – *it is no wonder then that the ethics of AI is called toothless*”.

The point I want to reinforce is that the role of ethics is not to be a soft version of the law, even if legislations are based on ethical principles, that is not where ethics finds its true power. Just like critical theory and literature, the real application of ethics is in challenging the status quo, seeking its deficits and blind spots. True ethicists preoccupied with the current state of the AI industry should not only reinforce the repetition and defense of the same concepts already cited by numerous published guides but also seek to bring out all that of value that is being omitted. Issues such as equality, diversity, representativity, anti-war policies, equality in income and wealth distribution, and preservation of our Socio-ecological system, should be the main focuses of AI ethics. Something that with an interdisciplinary effort can be transformed into *real* legislation with *real* consequences based on *real* ethical debates.

## **VIII. Conclusion**

Applied ethics should not be used or manipulated into a soft version of the law. This is not the role of ethics. Currently, we see several issues being omitted from the debate related to AI ethics. While technical problems related to machine learning already have a strong literary background, such as privacy and interpretability, social issues like

income inequality, technological unemployment, political and ecological side-effects, the weaponization of AI, and a total lack of diversity in the AI industry and its governance, are mostly omitted from the present ethical debate. Like critical theory, the ethics of AI must focus on highlighting the neglected aspects of our society and its relation to the AI industry, challenging its power structures, so that the promise of “*beneficial AI for all*” can be fulfilled.

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