

Philosophy of Artificial Intelligence: Ethics for Smart Cities

By Viviana Polisená, Professor-Researcher, Catholic University of Córdoba

Philosophy of AI is based on ethical reflection and brings together ideas from computer science, robotics, psychology, information science, and transfer and management sciences. The goal of philosophical reflection is to understand the social, moral and political issues in the evolution of artificial intelligence, as well as to determine the ethical rules for a fair digital world. In this module, I will introduce the philosophy of AI and look at the example of ethics for Smart Cities as a way to illustrate how this philosophy can be applied.

Lecture Transcript

0:00 Good Morning, I'm Viviana Polisená. I present my research: Philosophy of Artificial Intelligence - Ethics for Smart Cities. Philosophy of AI includes ethical reflection. This is multi-horizontal because it brings together computer science, robotics, psychology, information science, transfer and management science. The goal of philosophical reflection is a better understanding of the social, moral and policy issues of the evolution of AI, as well as the determination of ethical rules for a fair digital world. Is AI a useful tool for public policy related to the world of collaborative action? And is the phenomenon of big data and data science up to the challenges posed by the governance of Smart Cities? How to address cases and experiences of the use of big data in the field of collaborative action? The job of the future or the future of work? Neither of the two, but collaborative action. From this present and in the future we should speak of collaboration, not work. And we should discuss what collaboration will look like in the future. Collaboration is undoubtedly related to data protection that should be carried out not only by data scientists and data analysts, because it is also a right and a duty of citizens. The collaborative action displays a sustainable and a friendly competitiveness from which the capacities of horizontal government agencies and digital services. Academies are updated for the hiring of technological talent within a digital humanism. Philosophical reflection is important to be alert and not to fall into a blind application of massive data and algorithms in users, since it should be taken into account that while we use technology, it transforms us. The digital environment represents a multilevel challenge for the blockchaining philosophy, so it is essential to deepen its dynamics and its transcendence from the anthropological and ethical point of view. A new reality that concerns all, because the problem of thinking about digital transformation affects the way of understanding life. The philosophy of AI implies the reflection on how AI will become the technology of the future and will be part of each citizen in smart cities. This will redefine a new social pact with a new citizen's consciousness. The philosophy of AI reflects on the imitation of nature in an attempt to find solutions to new problems and new interactions between the biological and the digital. Although each smart city will have its AI system that will connect all citizens without the need for a screen, smart city systems will also be interconnected, using data and algorithms. Philosophy provides a human dimension, reflection and ethics. With philosophy the

AI ETHICS

challenges and opportunities of digital transformation in the governance of smart cities can be addressed. Citizens of smart cities will need to develop a common ethos in order to make laws and to participate in the public sector in a more virtuous way. The philosophy of AI reflects on how algorithms interconnect data and how AI itself feeds on data and the scope of this evolution, in order to regulate the direction of big data. The philosophy of AI aims to build an ecosystem and data governance oriented towards the common good. It also tries to find a way out of risks of manipulation, of isolation, of emotional dependence on networks, of the new freedom. The current pandemic has put emphasis on the need to rethink the role of the public function and the way it works in smart cities. It is urgent to develop new capabilities and digital skills so that the transformation of the institutions of cities focuses on the needs of citizens. Thinking about innovation, in a philosophical way, analyzing ethically the opportunities and dangers of the digital age will make us more human and equal. We should prepare for the transition to the digital age. It is of utmost importance to elaborate and develop a philosophical approach to AI from which an ethic of the artificial and the digital is deployed. This action is collaborative, it involves computing, robotics, communication, social, political, linguistic, cultural and rhizomatic economy. The ethics of the artificial must qualify in different social and economic contexts and impact in public and private freedoms in light of the distinction between identity and digital personality. At the dawn of the digital age, we are building the bioethics of the future. It is necessary not only for a good quality of collective life but for an equitable transfer of knowledge and an authentic social awareness that generates well-being and trust in the processing of public and private data, safety in the management of algorithms and balanced governance in the transparent regulation of the AI ecosystem for efficient local decision-making in each smart city, and for efficient decision-making in global cities in the interaction of all them that shape the new global governance system. The AI network of smart cities forms a structure capable of analyzing the environment as a strategic asset without which neither the new social pact nor the development of citizen awareness in the drafting of new rights and responsibilities would not be possible. The legislators of the world should be collaborative in the design of the new framework necessary to guarantee the freedom and dignity of citizens. The new order will provide people with new and unique opportunities. It will make people's lives more meaningful and in a sense, simpler, orderly, logical, fair, interesting and happy. The ethics of the digital age should answer the following questions: how does social media influence our decision-making? Is there privacy in the digital age? Can a machine act intelligently? Can a machine have a mind, states of mind, and consciousness in the same way as a human? Ethics should regulate the handling of personal data on networks. This will have an impact on public and private freedoms.

11:53 The time of a natural society in coexistence with the artificial has begun. Humanity does not experience a crisis, but rather lives within the horizon of events. That is, there is a gap between what is past and what is future, a separation between what we have lived and what we will live. From this horizon, no human will be able to escape, no human will emerge as he was before. But we will all be transformed. We are overcome by the fear that machines will overcome us, that they are autonomous in learning and capable of improving themselves and developing emotional skills. More than ever, the future is the effect to the present, and it is in this present that moral, political, legal, philosophical, and ethical debates arise. This is the time to agree on regulations and reflect on the life we wish for our offspring. Such reflection cannot go with the speed of technology precisely because it is reflection and reflection takes time. It is the perspective of thinking. In that waiting time, the questions arise: Can the power of creation overcome the power of the creator? Can the power of AI overcome the power of human intelligence? We have created an intelligence that does not need a physical form, but its dimension is virtual. It is beyond the biological tissue. How to hold artificial intelligence accountable when the creator is no longer

AI ETHICS

responsible, and the responsibility falls on the artifact itself? What will happen when the algorithms decide? What will we do when the programs and algorithms acquire intentionality? Can artificial intelligence acquire the status of a digital person? If so, what are its rights and obligations? Can a program go into policy and bundle with other algorithms to proselytize? Is that transhumanism or is it the end of humanism? What kind of marginalization and vulnerability will emerge? Progress is inherent to the human, the existential basis of the human being is learning, constantly extending the frontiers of knowledge, innovating. This leads us to the idea that humans will continue technological innovation and extend the intelligence of artifacts. Taking into account that in the technological career the haven of philosophical reflection becomes imperative; because it is not about accumulating and generating the appearance of knowledge; it is about a proreptic, changing the direction of the gaze, or an exhortation consecrated to justice, moderation and virtue, therefore consecrated to a philosophical life. This must be the course of humanity before the development of AI. Big data that can organize other less complex technologies that can plan the future beginning from zero. That is without a human programmer that introduces data; without a doubt that will be the beginning of the superior or next-generation AI.

18:01 At that moment the event horizon will be crossed. How will we contain our creation? We know that the key is in the use we do of it. But does technology know how to use technology? What if the strategy of AI does not coincide with human wellbeing? What if its preferences are not our preferences? The challenge is to create artificial systems in line with human values. So how do we code AI so they don't turn against humanity? Is it possible to introduce the values of respect for human life into data and the intention behind that data? We should focus on imagining and developing systems and structures that empower people really affected by technologies. How, from a participatory angle, can we guarantee that all pertinent voices can be heard? How can we trust in new AI systems in settings as sensitive and ubiquitous as public classrooms, households, transport, law enforcement, and other services? The need arises to promote the use of legal software and advocate for public policies that encourage technological innovation and boost growth in the digital economy, which must be transparent, diverse, equitable, promote social welfare and accountability to the citizens.

20:40 A new horizon of responsibility appears that requires ethical principles that include the immediate and immediate future of the consequences of human actions. Principles that analyze the technical environment of the human being, with social and political consequences. I am talking about a new sustainable global policy for life which values the future planet at the moment. Humanity is taking a leap from homo sapiens to homo digitalis. Can AI claim its right to be an electronic person with a legal personality? Being an electronic person and acquiring legal personality, does it have rights to trade and process data? Which other rights can AI claim? Right to exist and to be repaired? Right to function and self-repair? Any right granted to AI should be located within the framework of protection of human life and non-human life. We should look after the ethical regulations that apply to AI that are global and represent the citizens of the entire planet.

22:32 Hence the need for reflection in both public and private actors. Running does not guarantee us adequate ethical considerations for the development of the artificial. When I speak of the citizens of the entire planet, I am referring to the need for cultural pluralism applied to the ethical regulation of the AI ecosystem. This ethical regulation should not be reduced to the economic dimension, but rather include all human activities and all planet actors, such as education, security, health, international relations, diplomacy, data management, research, production and management of knowledge, digital money, and global governance with all its cultural diversity.

AI ETHICS

The time has come for the global pact, a contract never before elaborated by humans, a global social contract. In this pact, it should include not only its behavior and its consequences but its own artificial creator in daily affairs, public services and data interaction management. If AI ever succeeds in having rights, these should never overlap or contradict human rights. AI and intensive data based technologies can solve the world's biggest challenges, but they also propose risks to individuals and groups. As we implement new technology, we should consider the ethical ramifications of using AI to identify and rectify the damage.

25:12 Responsible design and use of AI is difficult, but there is an urgent need. When organizations adopt new technologies without taking into account the social, economic, cultural and political contexts, they can endanger privacy and security and exacerbate inequalities in ways that are difficult to reverse. We should develop collective consciousness of social impacts of technology and provide people and institutions with the tools to pursue the responsible use of AI. A priority area for the organization is to investigate the potential for the application of AI approaches on the risk assessment management process. The objective is to build a roadmap for action that provides recommendations for future studies or global projects. There is a global interest in building some kind of planetary consensus mechanism on AI governance. We are clearly at a point of development in which there are many actors contributing at this moment to this movement that goes from principles to practice, and we simply need to work together with multi concerned parties to harmonize these approaches. AI will transform industries, productivity, crop yields, drug discovery, decline in biodiversity, and help conserve nature by achieving ambitious global goals, protect land and oceans, and restore degraded ecosystems. But there are obvious risks. AI-powered systems can transgress privacy while applications based on low quality data can lead to bias and discrimination.

28:24 The world we live in is increasingly based on data. This is causing companies to increasingly use AI techniques such as machine learning and deep learning. It appears to be the only “efficient” way to control data and generate value for the business relatively quickly. Of course, future competitiveness also plays an important role. The AI Ethics director's job should not be primarily technical. Instead, he should sensitize data scientists, machine learning engineers, and developers on ethical issues. The entire sensitization process should be part of any data-driven project. By this I mean that the ethical workflow should be firmly integrated into the respective models and process phases. However, in addition to being a great promise, increasingly capable smart systems create significant ethical challenges. The topics discussed deal with impacts on: human society, human psychology, the financial system, the legal system, the environment and the planet, and in trust. Here are some points that an AI Ethics official should consider in his work: issues related to privacy, human rights and dignity are addressed, as well as the risks of AI perpetuating biases, intentional or not, of existing social systems or their creators.

31:08 This section also raises questions about AI technologies' impact on democracy, suggesting that these technologies may operate to the benefit of state-controlled economies. The increasing use of AI comes with increased use of natural resources, increased demand for energy and waste disposal issues. However, AI could improve the way we manage waste and resources, leading to environmental benefits. The future of society depends on trust. For AI to take on health-related tasks the public should trust in technology. Trust includes aspects such as fairness, transparency, responsibility. It is primarily about identifying and understanding ethical risks and training citizens on how to do that. Discussions about the ethics of AI still take place primarily in academic circles. But it can already be seen that many companies are taking it seriously. How can different actors

AI ETHICS

improve corporate governance of AI taking into account the public interest? Since AI research and development have an ever increasing impact on the world, it is essential to ensure that the governance of leading companies in the field supports the public interest and the common good. The need to promote complementary cooperation among all global actors that create standards for AI based on ethics and fundamental rights. While on the one hand AI has the greatest advantage in terms of efficiency and speed, on the other hand, it involves a series of risks that should be taken into account. That is why we should ensure that the development and use of AI in society is based on respect for fundamental rights and freedoms, the rule of law and democracy.

34:51 Secondly, it is also not clear who really owns the data that is generated in a healthcare system. However, this is a very complex legal issue that is regulated differently in each country. Most likely the obligation to divulge data may derive from an obligation to promote the common good and should result from political processes in which citizens are involved. We have to keep in mind that a market economy is not in a position to produce supportive institutions. However, solidarity should be at the center of the use of AI. Efforts to create them should be equitably distributed as the expected benefits and risks. Ethics is inescapable because it refers to the ultimate values on which our choices are based, whether we realize it or not. These are values that define what it is to have a good life and what we owe to others, including non-human animals and nature. The concern that AI will eventually get out of control, and not be constrained by human morality, and may bring catastrophic consequences. But what is human morality? What is morally correct is that which will maximize the fulfillment of human preferences. Therefore, ethics is reduced to an exercise of prediction and optimization: deciding what act or policy is likely to lead to the optimal fulfillment of human needs. In democracy, it is not enough to give a vote to people while effectively excluding themselves from the deliberation; and if they deliberate as equals, they should have access to the key cities where basic ideas about justice and good are elaborated. One of the most important goals for philosophy and ethics is to develop formats that facilitate a more secure and trustworthy democratic dialogue. And from this main objective the principles comes: human, social and environmental well-being; human-centered values; equity; protection and security of privacy; reliability and safety; and transparency and explicability. AI should always have a human-centered perspective, it should always be linked to the development of human beings and of course it should also be directed towards a more social benefit and as distributed as possible. And on the other hand, it has to be respectful of our fundamental rights. So AI algorithms should be better from an ethical perspective, not a performance perspective. Creating an AI system is for a better and more transparent world.

40:44 Promote the impact of AI on society and strengthen the role of civil public participation so that they engage in a responsible way, generating strong links. The effort to ensure that technologies are beneficial to society should be a joint action, a collaborative action. Collaborative networks and global consortia working together on issues related to AI ethics with a global mindset. Public deliberation is a cornerstone of participatory and representative governance and a creation of shared value within society. As such, any AI governance framework should aim to improve social welfare. Real machines are needed to bring a public voice towards current debates, locally and globally, on how to govern the increasing use of AI in our daily life. Rapidly deploying new technologies without enough consideration of social and ethical implications, and the use of a participatory process that incorporates the public voices of those concerned and their communities runs the risk of unleashing a number of events with much broader and long term effects. Strengthening the role of public participation and civil society in the AI governance process include among other topics: implications of using AI

AI ETHICS

enabled tools in the democratic process; what extent the inclusion it depends on access to information and empowerment; real participation of civil society in the public and private governance of AI; reduce inequalities in the AI debate; governance and access to ethical technologies; promote ethical decision making as a shared exercise and public participation; ensure a multicultural approach to this civil society participation; and technology assessment organizations or data ethics commissions to promote the participation of civil society. The new global governance system will be based on the development of the arts and philosophy; its education will be based on deep learning in immersive classrooms and laboratories. This will transform the way of teaching and learning. Effective educational systems will be developed with augmented reality and mixed reality. Philosophy teaches “learning to be human”, hence the importance of the philosopher as an educator in smart cities. The philosopher as an educator of an integral education that allows the development of the personality so that each citizen can display his ethos towards excellence in the acquisition of their virtues and values. We should build the ethos together to make it a common ethos, thus we can make laws and participate in the res publica. This is the best way to become virtuous and happy citizens. Virtuous citizens regulate the laws of the data market and access to data for research. This regulation is optimal, efficient and transparent under a digital ethic. In the digital age ethics links policies with technology. Thus from governance the horizontal interconnections between economy, society, policy and technology are examined. Technology plays a central role in all areas. Data analytics give us better informed decision-making possibilities with less risk of error, and this is essential when formulating public policy and regulations about privacy. In smart cities public and social policies include: climate, environmental and energy strategies; big data; international organizations; food safety; security; mobility data; political theory; justice and ethics; competition law; and policies. These strategies include electronic governance with alternative and complementary channels for citizen participation. The citizens of smart cities are participants in how technology shapes policy and governance. Scientists and philosophers will emerge from the new generation of citizens who will be born and trained in smart cities. Those will use efficient multilateral approaches built only in cooperation and with collaborative responsibility. Finally, I can affirm that the fundamental principle of the philosophy of AI is: all artificial artifacts must support natural life and human life and non-human life. The artificial cannot prevent the human being from thinking, it cannot prevent the human being from philosophizing. The artificial cannot nullify free will. Thanks very much.