Artificial Intelligence and risks for democracy

by Giuseppe Conte

scholar of epistemology of complexity

Summary

The recent diffusion of the so-called generative artificial intelligences has once again brought to the fore issues relating to the influence of technology on social and political systems. This article deals with two classes of risk that arise in the relationship between these new technologies and democratic systems.

What in empirical science are called 'data' (data),
being in reality chosen arbitrarily from the nature of the hypotheses already formulated,
could more honestly be called 'taken' (capta)
(Laing, 1985, p. 33)

Premise

It is necessary to begin with, albeit concise, definitions of the two protagonists of this document. As far as AI is concerned, without going into the technical details, we limit ourselves, for our argument, to a summary description of its operating principles. These systems are essentially based on the use of “applied statistics”. A large amount of data, aggregated from various information sources, is processed by sophisticated algorithms that identify numbers, frequencies, regularities, correlations. Before, during and after this step there is a continuous human activity aimed at making the final results adhere to the initial wishes.

By democracy we mean instead that form of government where sovereignty is exercised, directly or indirectly, by the people.

Different axioms

The two concepts just described, AI and democracy, already collide in their respective basic assumptions.

AI is a product of a specific technical culture which implicitly assumes that there is an objective Truth, residing in data that would represent information. That this information can be processed, through quantitative and statistical methods, eliminating the errors of human judgment and decision, so as to distill the Truth itself. Precisely these same assumptions, often

unconscious, have allowed the term “intelligence” to be used in a nonchalant but suggestive and almost superstitious way in this area. (Sini, 2023)

Democracy is structurally based on the social construction of 'viable' paths, expressed by a majority and oriented towards the well-being and prosperity of the community. Provisional truths to be continuously subjected to scrutiny through the various instruments of popular consultation.

“Whoever considers absolute truth and absolute values inaccessible to human knowledge must not consider only his own opinion as possible, but also the opinion of others [...] Therefore the dialectical procedure adopted by the People's Assembly or by the parliament in the creation , a procedure which takes place through speeches and replies, has been properly recognized as democratic.”

(Kelsen, 2010, 146)

This openness to possible truths is the sine qua non for the existence of pluralism, the foundation of the democratic idea.

“The pluralism of truth opens our eyes, in the first place, to contingency: I don't have a 360-degree view; nobody has it. Second, and this is the boldest notion, truth is pluralistic because reality itself is pluralistic, not being an objectifiable entity. We subjects are equally part of it. We are not only spectators of the Real, but also co-actors and even co-authors of it. This is precisely our human dignity."

(Panikkar, 1990)

Thus, while democracy remains on the level of complex pluralism, dialogue and debate, even long and turbulent ones, always producing provisional results, AI is used to reduce, simplify, speed up, optimize, make the decision-making process more efficient, guided by a algorithm unaffected by human, considered flawed by nature.

In this paper we openly embrace democratic axioms, rejecting those we can call algocratic (Pozza, 2020).

From the axioms, or paradigms, to use a term dear to the philosophy of science, derive specific looks and postures with which we relate to the world and therefore the consequences of our actions derive.

In our opinion, the paradigms underlying the current use of AI produce or amplify various risks, some of which we will detail below. Ideas will follow that could potentially mitigate them.

Non-neutrality of technique

We are aware that the title of this paragraph may arouse the first resistances. In fact, it is a common opinion, widespread to the point of becoming a mantra with anti-anxiety properties, that: "technology is neutral, the important thing is how you use it."

Here we state exactly the opposite: every technology is not neutral. It is not neutral because every technology fits into the mutually generative relationship between living beings and the environment, modifying it. Acting on this relationship means influencing both poles, including, in the case of man, the knowledge of the relationship itself. Hence the multifaceted nature of technology, where power and liberation are always also loss. (Count, 2021)

It is therefore essential to accept the fact that we do not 'use' the technique, remaining separate from it, but we change continuously thanks to the technical tools that we use in our relationships.

Below we list two classes of risk dividing them into intrinsic to AI technologies - i.e. linked to their operating logic - and extrinsic - i.e. linked to their possible
use.

inherent risks

Loss of cultural biodiversity.

The process of 'distillation' of information operated by the AIs, summarily described at the beginning, translates into the product expected by the designers: a single output. In this these technologies differ profoundly from other algorithms and programs, for example those used in Web search engines, intended to produce multiple outputs corresponding to a certain input.
The answers provided by the AIs are the product of a very long chain of data processing that starts with raw materials. The so-called source data, subjected to long and complex industrial processes, minimally transparent, which produce the equivalent of an ultra-processed food.
This synthetic product is spread globally and often made available in the user's language
the final. It contributes, day after day, to the construction of a unique and globalized culture.
Culture that invisibly incorporates the axioms of AI expressed at the beginning (existence of an objective reality, information content of data, machines as rational agents, etc.)

What has just been described can therefore represent an enormous acceleration of the process of globalization and homologation that has already been active for decades. A loss of cultural biodiversity that inevitably has a heavy impact on pluralism, and therefore on democracy.

It is reasonable to foresee that this homologation will be articulated both vertically – historically – tending towards the production of homogeneous historical narratives, both horizontally – geographically – tending to the diffusion of a single culture on a global level.

“We have suffered and still suffer so much from political, religious and cultural fanaticism that we legitimately thirst for universal understanding. A typical example is the global village syndrome. While noble in intention, it seems to me just another worthy successor to the colonial mentality. Colonialism believes in the monomorphism of culture, meaning that there is ultimately only one civilization: And now here is the unification of the world into a global village."

(Panikkar, 1990)

In fact, these aspects will be extremely influenced by the input data of the AIs, bearers of thoughts, values, ideas and cultures that are found at the center of each statistical distribution curve of the data supplied as input to the algorithms.

Positive feedback risk, the second wave

What has just been written is the basis of the subsequent considerations.

As we write, the web is literally flooded with the products of nascent generative Artificial Intelligences. In practically every field of knowledge more and more artifacts are produced thanks to these technologies.

These products, day after day, are populating – or it would be better to say contaminating – the data sources that will be fed to future versions of the same Artificial Intelligences.

The result, as can be easily understood, will be the alteration of the statistical premises which provide a reliability, albeit relative, to the outputs. Premises that imply a correspondence between data and real phenomena.

When an output of an AI enters the inputs of another AI, the well-known phenomenon of 'positive feedback', studied in cybernetics, will be triggered. An ultra-processed datum will become input to a process which will eventually produce an ultra-ultra-processed datum, and so on.

The practical result will be an alteration of the information base, with a 'squeezing' of the data towards the center of the distribution curves.

In other words, the original data sources of the AI will become increasingly homogeneous and uniform, consequently the results will be perceived as increasingly precise and unambiguous. And probably all of this will also be welcomed.

These results in turn will influence the ideas of AI users, confirming the implicit premises and fueling the well-known phenomenon of 'circular causality'.

As a result, the alteration of the information context in which each of us moves cannot fail to have repercussions on pluralism, the central pillar of any democratic system.

Risks external to the technology

Risk of manipulation

The construction of thoughts, for each of us, largely depends on the social environment in which we are immersed and on the evolutionary and informational niche in which we move.

Every action we take comes from our values, ideas, convictions, beliefs. Each of our products is imbued with these premises. The products of AI technologies cannot be an exception to this.

“Let us therefore abandon the presumption of being rational beings, since every rational domain in which each of us moves at every instant is constituted as a domain of operational coherence by the acceptance of the fundamental premises which define it in an emotional act.”
(Maturana, 2006, p. 110).

AIs are designed in a precise economic and market context in which they are services in the commercial sense of the term.

“In artificial intelligence, datasets are never raw materials that fuel algorithms: they are themselves political acts. The whole practice of collecting data, classifying and labeling it, and then using it to train those systems is a form of politics, which has led us to what are called "working pictures," representations of the world made exclusively for machines."

(Crawford, 2021, p. 252)

These are commercial services that are provided to customers (States, organizations, companies, individuals, etc.) and that move within the framework of the global marketing model that clearly tends to manipulate the individual.

“[…] the whole social group is an integral part of the networked universe: psychologists, economists, marketers, ergonomists, therapists, web designers… all contribute to a social engineering in line with the conviction expressed by Skinner according to which science is better equipped than politics to 'handle' man."

(Besnier, 2013, p. 122)

Based on the general or specific needs of these customers, the services are calibrated by their producers. As market logic dictates, there is then a continuous process aimed at improvement by trying to make the service adhere to public expectations while at the same time trying to change the meaning and expectations of users to make them adhere to the service offered.

“The communication produced by the advent of the meaning industry would have generated a mental short circuit [...] precisely in the construction of a new perception of the self, of collective life, of society and of life itself. The construction of the idea of material life, of individual and social everyday life, came out of the terrain of "simple" human relationships to become the product of an industry that produces profit in the construction of the "meaning of life".
An industry that puts its "power" at the disposal of those who have the economic means to use it, be it a company that has to sell, be it a politician or manager or a party. Furthermore, the advent of the network and the power of social communication is enormously expanding the possibilities of generating outbursts of consensus precisely based on the stratification of the "meaning" of life and events."

(Bellucci, 2019, p. 31)

As described, we maintain that there is a gulf between the market approach described up to now, with which these technologies are developed and managed, and a democratic vision.

"If robotic technologies, and not only them, were to be abandoned to a pure logic of power, substantially not dissimilar from the one that has «deregulated» the sphere of the economy, we would witness a growing divorce between humanity and democracy, understood in its character as a political regime where the use of any means cannot be separated from the respect for fundamental principles and rights."
(Rodotà, 2012, p. 375)
What has just been described is not an unprecedented risk, however, we believe that the dynamics described could create the conditions for its significant growth, both in terms of probability and impact.

Risk combination

The final result, which combines the intrinsic risk - structural to AIs - with the extrinsic risk - the use of the technique in the logic of the market - we believe can lead to the immeasurable growth of that phenomenon that Alexis de Tocqueville already called "dictatorship of the majority" - this time 'guided' by private interests and specific ideologies.

Furthermore, the potential of AI, without appropriate governance, can lead to an exacerbation of that flattening out of which Heidegger had already warned, using the expression "inauthentic existence":

"[…]. In this state of irrelevance and indistinction, the Si exercises its typical dictatorship. We have a good time and enjoy ourselves as we enjoy ourselves; we read, see and judge of literature and art as one sees and judges. We keep away from the mass as we keep away, we find scandalous what we find scandalous. The Yes, which is not a specific Being there but all (but not as a sum), decrees the way of being of everyday life. The Si has its own particular ways of being […]. Averageness is an existential character of the Si. In the Si, as far as its being is concerned, it is essentially of it. It therefore maintains itself in the mean of what is agreed, of what is accepted and of what is rejected, of what is granted credit and of what is denied. In determining what is possible or licit to attempt, averageness watches over every exception. Every record is silently leveled. Every originality is dissolved in the known, every great enterprise becomes the object of a transaction, every secret loses its force. The cure of averageness reveals a new and essential tendency of Dasein: the leveling of all possibilities of being.
(Heidegger, 1976, p. 163)

Proposals for risk mitigation

Structural and social risks such as those described cannot be eliminated. It is reasonably possible to imagine mitigation actions that intervene on the probability and on the impact
of their occurrence.

At this point we can glimpse the common structure that is in the background of the dynamics highlighted up to now: simplification. 'Trivialization', a term with a specific meaning in the language of the epistemology of complexity.

Trivialization as a product of the selection process that AIs are designed to complete and that distill the answer to the user's need from the vast sea of world knowledge.

From this extreme synthesis, the following risk mitigation ideas arise.

Mitigate the risk of cultural biodiversity loss

"A system is more likely to interact constructively with the environment the more its internal structure is differentiated and diversified."
(Ceruti, 2009, p. 75)

- Already today, a few large companies compete for domination of the lucrative AI market. Rules and regulations need to be established that limit the global spread of individual AI systems and, at the same time, encourage the proliferation of new AI systems.

- Today the Corporations producing AI systems do not declare their data sources and neither do they allow consultation. It is proposed to establish dedicated organizations to audit and certify these sources. Further certification processes can be employed to ascertain the variety in the composition of the databases and to validate the data transformation chain. As it is easy to see, these are proposals that have already been implemented in other areas, such as the agri-food sector. Area that shares the intrinsic complexity, the multitude of actors and the applied logics with the topics treated here.

- AI, in order to be used in 'sensitive' areas, and always exclusively in support of human decisions, must be open source, and provide for forms of auditing of archives and configurations.

Mitigate the risk of positive feedback

Every AI product has some reliability and significance if it is based on human knowledge, digitally encoded, not the output of other AI algorithms.

"By looking at the layers of training data that structure and inform AI models and algorithms, we can see that the gathering and labeling of data about the world is a social and political intervention, albeit one disguised as a purely technical act.
How data is interpreted, collected, categorized, and named is fundamentally an act of world-making and perimeter-making, which has huge ramifications on how AI affects the world and the communities that are most impacted by it. The myth of

Data collection as a benevolent practice in computing has obscured its operations of power, protecting those who profit most from it and keeping them accountable for its consequences."

(Crawford, 2021, p. 135)

For these reasons it is necessary to feed these systems exclusively with products of human activity. In this regard, the creation of a 'Bio certification' is proposed, which distinguishes the artifacts produced by human beings as a 'sticker'. These objects 'certified' as human products, together with data from automatic information processing
(non-AI information systems) must be the only artifacts allowed to be collected in the big data fueling the AIs.

Mitigate market risk

"Every organizational complexification is expressed in an increase of variety within a system."

(Edgar Morin, 2001, p. 406)

We propose to use political and democratic tools to mitigate this risk.

- Extension of antitrust legislation in the AI field.
- Strengthen the tools and capacities of existing governance and supervisory bodies within transnational organizations, such as the United Nations (see appendix).
- Definition and application of specific standards, such as ISO/IEC FDIS 42001, currently under development (see appendix).

Conclusions

We wanted, in these lines, to suggest ideas, certainly not ready-to-use solutions, precisely because the preparation of adequate and operational measures can only pass through mediation and democratic confrontation.

The topic covered in this article is extremely important. In the near future, politics will be called to deal with the impact of these new technologies. The stake is capital.

"If political power no longer fulfills its role, if it lacks, even worse if it kneels before powers that it is fascinated by and of which it is convinced that they hold the only truth of our age, then we are left with only one choice: to replace politics with politics, or with the re-appropriation by citizens, associations, trade unions, institutionalized groups or not, of the inalienable right to individually and collectively exercise their freedom of decision and to

judgment. And the extent of our involvement depends on nothing less than the future of our civilization."

(Sadin, 2018, p. 159)

We conclude by sharing the list of ideal democratic capacities expressed by Martha Nussbaum, evidently not reducible or delegable to any algorithm:

- *The ability to reason about political problems affecting the nation, to examine, reflect, discuss and reach conclusions without delegating to tradition or authority.*
- *The ability to recognize in fellow citizens people with equal rights, however different they may be in terms of race, religion, gender and sexual orientation: to look at them with respect, as ends, not as instruments to be manipulated for one's own gain.*
- *The ability to care about the lives of others, to grasp which policies are meaningful to the opportunities and experiences of one's fellow citizens, of all kinds, and even of people outside one's own country.*
- *The ability to visualize the variety of problems of human life as it unfolds: to think about childhood, adolescence, family relationships, illness, death and much more taking into consideration a wide range of personal stories, and not just a statistical set.*
- *The ability to judge politicians critically, but on the basis of precise information and with awareness of the real possibilities available to them.*
- *The ability to think of the good of the whole nation, not that of one's own local group.*
- *The ability to see one's nation as part of a complex world order, in which problems of various kinds require a transnational discussion for their solution.*

(Nussbaum, 2014, p. 42)

Bibliography and sitography

Bellucci Sergio, 2019, The industry of the senses, Ed. Harpo

Besnier Jean-Michel, 2013, The simplified man, Life and Thought

Ceruti Mauro, 2009, The constraint and the possibility, Raffaello Cortina pag. 75)

Conte Giuseppe, 2021, Slaves of Freedom, in Bellucci Sergio. *AI-WORK The digitization of work.* Jaca Book.

Crawford Kate, 2021, Neither intelligent nor artificial, The Mill

Heidegger Martin, 1976, Being and Time, Longanesi.

ISO/IEC FDIS 42001 - Information technology — Artificial intelligence — Management system - https://www.iso.org/standard/81230.html

Kelsen Hans, 2010, Democracy, The Mill

Laing Ronald David, 1985, in Keeney Bradford P., The aesthetics of change, Astrolabe

Maturana Humberto, 2006. Emotions and language in education and politics. Ed. Eleuthera

Morin Edgar, 2001, Method 1, Raffaello Cortina

Nussbaum Martha, 2014, Not for Profit. Because democracies need humanistic culture. The Mill.

Panikkar Raimon, 1990, the pluralism of truth http://www.dhdi.free.fr/recherches/horizonsinterculturels/articles/panikkarpluralism.doc

Pozza Giuliano, 2020, "Algocracy": how artificial intelligence threatens human freedom. https://www.agendadigitale.eu/cultura-digitale/algocrazia-perche-senza-etica-con-lartigianato-artificial-ci-giochiamo-la-liberta/

Rodotà Stefano, 2012, The right to have rights, Ed. Laterza

Sadin Eric, 2018, The silicone colonization of the world, Ed. Giulio Einaudi

Sini Carlo, 2023, Splinters of thought 10: artificial intelligence is a superstition. https://www.youtube.com/watch?v=qvmwWp0SZmI (link verified as of June 2023)

de Tocqueville Alexis, 2007, Democracy in America, Utet

United Nations 2023, A global digital compact – an open, free and secure digital future for all https://www.un.org/sites/un2.un.org/files/our-common-agenda-policy-brief-gobal -digi-compact en.pdf

United Nations, 2023, Providing global steerage on artificial intelligence. https://www.un.org/techenvoy/sites/www.un.org.techenvoy/files/general/Artificial_Intelligence_Summary_PDF.pdf