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Does the AI need a genealogy? The 'PAIA' model *and the question concerning technology for the AI regulation*

Abstract: This paper explores AI's role through the lens of philosophical anthropology, examining its impact on cultural spaces and values. Technology, as Arnold Gehlen argues, is integral to human evolution, shaping culture as a 'second nature'. Ivan Illich's concept of the critical threshold warns that beyond certain limits, technology distorts rather than supports human and cultural systems. To avoid alarmism, AI should be understood within this continuum of technological development, familiarizing society with its potential without overlooking risks. The *PAIA model* (Pervasiveness, Autonomy, Invisibility, Adaptivity) provides a framework to assess these risks, ensuring AI does not replace human agency but enhances cultural resilience. The paper will try to provide an example on how intelligent technologies could generate a culture of Distrust in Generative AI Era. Nevertheless, the main objective of this paper remains to show a possible non-catastrophic perspective of a co-living culture between humans and AI.

1. Main Frame: The AI Ethics Tree

As many of the technologies which have been developed during the last centuries – especially from the industrial revolution onwards[1] – AI is turning more pervasive, deeply changing human life, and social spaces. If this means to change human condition *tout court*, then we assume that technical life is a "second nature" for human species. In order to avoid false alert, this paper will move from Gehlen's perspective[2] on anthropological philosophy to normalize the impact of AI and from Ivan Illich[3] theory of critical threshold to understand the limits of AI application[4].

1 About the impact technology in Ethics, an interesting perspective can be found in Bioethics. For more details see: M. Mori, *Manuale di Bioetica. Verso una civiltà biomedica secolarizzata*, Le Lettere, Firenze 2010.

2 Cfr. A. Gehlen, *Der Mensch. Seine Natur und seine Stellung in der Welt*, Akademische Verlagsgesellschaft Athenaion, Frankfurt a. M. 1978; eng. tr. by Clare McMillan and Karl Pillemer, *Man, His Nature and Place in the World*, Columbia University Press, 1988; A. Gehlen, *Anthropologische Forschung,* Rowohlt, Reinbek 1961; tr. it. di S. Cremaschi, *Prospettive antropologiche. Per l'incontro con se stesso e la scoperta di sé da parte dell'uomo*, Il Mulino, Bologna, 1987.

3 Cfr. I. Illich, *Tools of Conviviality*, Harper&Row, New Yok, NY, 1973. The author wants to thank his colleague, Enrico Orsenigo, who helped him to discover Illich's theory.

4 For obvious reasons we cannot propose the whole arguments of Gehlen and Illich's works, but we will use three specific concepts: 'relieving function' of technology, that can be

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The wide concept "culture", will be used here in a double meaning: (a) culture as artificial nature and technology, as shown in Gehlen's argument; (b) as attitude of human species in building new form of co-living strategies and principles, according to technological changes and revolution.

Another clarification is about the use of "genealogy"[5]. In the philosophical sense, it is developed by Nietzsche[6] and later expanded by Foucault[7], as a method of inquiry that rather than searching for an absolute or essential origin, explores how these cultural constructions emerge from specific historical contexts, power relations, and contingencies.

Applying a genealogical approach to Artificial Intelligence from an anthropological perspective means different things:

– Deconstructing the dominant technological narrative: critically examining discourses that present AI as inevitable and neutral progress, revealing instead the cultural visions, values, and ideologies that have shaped its development.

– Studying the cultural roots of AI: Analyzing how concepts of 'intelligence', 'autonomy', and 'consciousness' that inform AI are rooted in specific Western philosophical traditions, potentially ignoring other epistemologies and ontologies.

– Examining power relations: investigating which social actors (technology companies, academic institutions, governments) have defined AI development and which economic and political interests guide its implementation.

– Socially contextualizing AI: considering how AI does not emerge in a *vacuum* but is deeply intertwined with existing social structures, often replicating systemic inequalities and biases.

The anthropological perspective allows us to recognize AI not as a neutral technological entity, but as a cultural artifact that incorporates specific worldviews, power relations, and epistemological assumptions that deserve to be critically explored. We are supposed to co-live in a world where invisible forces are involved, considering different social actors and different levels of involvement – and that is why we will focus on agency assuming the ethical perspective. In order to understand what could be the new cultural and ethical risks (critical threshold) with the AI, the *PAIA model* will frame the discrimination between state of facts and normative level.

Before introducing the main argumentation tracing an AI genealogy within the main issue of "the question concerning technology"', it is necessary to understand

found in Gehlen's main work *Der mensch* (1978); technology as second nature or artificial nature, which finds a deeper analysis in Gehlen's works; the concept of 'critical threshold' as introduced by Ivan Illich.

5 For more references see also: A. Orsucci, *La genealogia della morale di Nietzche. Introduzione alla lettura,* Carocci, Roma 2001; R. Mordacci, *La genealogia come metodo di ricerca in etica*, in P. Donatelli (a cura di), *Le storie dell'etica. Tradizioni e problemi*, Carocci, Roma 2022;

6 Cfr. F. Nietzsche, *Zur Genealogie der Moral. Eine Streitschrif*, C.G. Nauman, Leipzig 1887; tr. it. di F. Masini, *Genealogia della morale. Uno scritto polemico*, Adelphi, Milano 2017.

7 Cfr. M. Foucault, *Nietzsche, Genealogy, History*, in D.F. Bouchard (a cura di), *Language, Counter-Memory, Practice: Selected Essays and Interviews*, Cornell University Press, Ithaca 1977.

how AI Ethics is organized in different branches. The ethical framework of AI can be analyzed through three key lines of inquiry, each addressing distinct and interconnected aspects of ethical reflection and governance.

1. The *Theoretical Ethics* examines AI ethics across different cultural and philosophical traditions, highlighting how ethics engages (a) the idea that AI could be an autonomous moral agent (i.e. machine ethics) and (b) the collocation of new technologies in an anthropological perspective. This approach helps to distinguish between false problems, often rooted in fears or misconceptions, and real ethical challenges that require critical attention. We support the point (b) which is linked to the following points.

2. The *Policy and Guidelines Line* focuses on the development of regulatory frameworks and ethical guidelines at institutional, national, and international levels. It seeks to establish principles that balance innovation with societal values, ensuring that AI's deployment aligns with fundamental human rights and ethical standards.

3. The *Applied Ethics Line* addresses the practical implementation of ethical principles in AI development and use. It explores the cultural impact of AI, recognizing that its integration into society raises new ethical dilemmas and risk scenarios. A key question in this domain concerns the limits of AI pervasiveness: at what point does AI cease to be a tool for human enhancement and instead begin to reshape cultural norms and agency.

Together, these three lines provide a comprehensive structure for assessing AI Ethics (i.e. cultural and practical implications in human life and condition), ensuring that discussions remain grounded in both theoretical rigor and practical applicability.

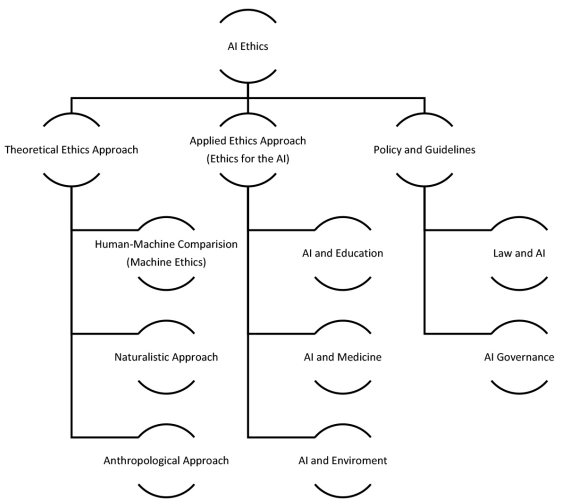

Figure 1. Tree of AI Ethics

Organizing better the different approach of AI Ethics is fundamental to put order in a moment when many principles are derived from different approaches and different fields. As said above, this first design can help to understand which should be considered a true problem and what kind of perspective we adopt to resolve them. For instance, the theoretical-ethical approach introduces a comparative strategy, which can help in case of philosophical anthropology where we discuss about genealogy of technologies. It is also linked to the branch of applied ethics, because it does not only describe the state of fact of technologies, but it tries to build new ethical framework, even if we assume that human species is properly "technical". The point is to analyze where the critical threshold could be overcome, changing the role of humans as mere spectators and not actors in producing action. That is why is necessary to underline the main risks raised by AI – pervasivity, autonomy, invisibility, adaptivity (PAIA) – so they are not assumed as natural development of technology but as possible threats for human values.

Philosophical anthropology can help in familiarization process, but ethics of the critical threshold can help to design AI technologies human-driven; and not technologies which drive humans.

2. The AI Genealogy: an anthropological approach

The philosophical critique of technology has long been concerned with the tension between instrumental utility and the unintended consequences of technological overreach. In this context, both Arnold Gehlen and Ivan Illich offer valuable insights into the structural and cultural implications of technological development. Gehlen[8], by characterizing the human being as a "deficient" or "unspecialized" creature (*Mängelwesen*), emphasizes the necessity of institutional and technological mediation for human stability. This dependence renders humans particularly vulnerable to the transformations brought about by technological systems. Illich, in a complementary critical direction, introduces the concept of a "critical threshold" – a point beyond which technology ceases to be a neutral tool and becomes a deforming force, reshaping human experience, social relations, and cultural norms. This notion of a threshold is particularly relevant when considering contemporary developments in artificial intelligence[9]. The *PAIA model*, which will be discussed below, can be understood as a conceptual response to this threshold. It aims to demonstrate how AI, once it surpasses certain functional and social limits, begins to generate not only technical but also cultural and ethical challenges.

If we assume Gehlen's anthropological philosophy, we see that agency, through technology, is what distinguish humans from other species. Technology also helps in implementation and building living spaces tailed for human kind. They also

8 Cfr. A. Gehlen, *Der Mensch. Seine Natur und seine Stellung in der Welt*, cit.
9 Cfr. I. Illich, *op. cit.*

contribute to the relieving function process as they exonerate humans from specific tasks. This means that humans can use their energy for other processes and this "speeds up" evolution[10]. As Gehlen writes:

> All of man's higher functions in every realm of intellectual and moral life, as well as of refinement of movement and action, are developed because the formation of a base of habits *relieves and shifts upward* the energy for motivation, experimentation, and control previously expended in the ha bitual action.[11]

The actions that human beings can perform with their own organs are limited and circumscribed – insufficient, ultimately, for survival. Thus, humans need to enhance the potential of their organs, creating tools through which act more effectively upon reality. This is how technology arises: as one of the most important achievements of the human species. In fact, Gehlen's theory of the human being as a "*deficient being*", unable to survive in any natural environment due to the lack of specialized organs and instincts, finds in technical ability the necessary support for adaptation to the environment:

> In terms of morphology, man is, in contrast to all other higher mammals, primarily characterized by deficiencies, which, in an exact, biological sense, qualify as lack of adaptation, lack of specialization, primitive states, and failure to develop, and which are therefore essentially negative features. Humans have no natural protection against inclement weather; we have no natural organs for defense and attack but yet neither are our bodies designed for flight. Most animals surpass man as far as acuity of the senses is concerned. Man has what could even be termed a dangerous lack of true instincts and needs an unusually long period of protection and care during his infancy and childhood. In other words, under natural conditions, among dangerous predators, man would long ago have died out.[12]

According to Gehlen, the tools and instruments devised by humans fulfill three main functions: they substitute (replacing organs we lack and thus enabling new kinds of work), they enhance (amplifying the action of existing organs), and they ease human labor. Lastly, there are "facilitation techniques" that reduce the workload of various organs, allowing for energy and effort savings. Technology can therefore be described as 'artificial nature'[13]. Over the course of history, we have moved from the use of natural materials to artificial ones. Metals, for instance, have replaced stones; candles have been replaced by electricity. The advent of technology has not followed a slow and linear progression, but has rather been marked by significant turning points and sometimes abrupt accelerations.

10 Cfr. S. Russell, *Human Compatible. Artificial Intelligence and the Problem of Control,* Penguin, London 2020.
11 A. Gehlen, *Der Mensch. Seine Natur und seine Stellung in der Welt*, cit., p. 58.
12 Ivi, p. 26.
13 Cfr. A. Gehlen, *Anthropologische Forschung,* cit.

The problem that humanity is facing with the AI is that not only working-practical skills are delegated to machines, but also cognitive and decision making. When we move to this level of complexity of the machine[14], which can replicate human cognitive and decision-making skills, the main problem is not about the substitution as the machine would degrade human dignity, but the undue assignment of responsibility without considering human supervision. So, the "critical threshold" can be found in both these processes:

a. cognitive offloading which can compromise the development of future and more complex skills;

b. ethical offloading in decision making about human agency and cultural environment where other humans are involved:

> To formulate a theory about a future society both very modern and not dominated by industry, it will be necessary to recognize natural scales and limits. We must come to admit that only within limits can machines take the place of slaves; beyond these limits they lead to a new kind of serfdom. Only within limits can education fit people into a man-made en- vironment: beyond these limits lies the universal schoolhouse, hospital ward, or prison. Only within limits ought politics to be concerned with the distribution of maximum industrial outputs, rather than with equal inputs of either energy or information. Once these limits are recognized, it becomes possible ot articulate the triadic relationship between persons, tools, and a new collectivity. Such a society, ni which modern technologies serve politically interrelated individuals rather than managers, I will call 'convivial'.[15]

These two offloading risks are linked to the particular position of AI technology which is more pervasive, autonomous, invisible and adaptive. That is what we called the *PAIA model*, based on Illich's perspective, useful to frame the main risks raised by AI.

Any technology brings new challenges and risks that need to be faced. Many might distance themselves from this perspective, believing that AI is fundamentally different from other technologies. Such a perspective risks to deviate from the real question producing negligence. Undoubtedly, AI introduces new ethical challenges differently from previous technologies; but those technologies were also considered unpredictable and dangerous, especially in the last fifty years[16]. With reference to the history of technology, AI shows a double connection: (a) general collocations in the timeline of technology development; (b) opening of specific

14 We have already discussed the different level of complexity in: A. Pisano, *Il perturbante artificiale. Livelli di complessità e interfacce possibili fra umano e IA*, in "Kaiak. A Philosophical Journey", 8 (1), 2021, pp. 223-250.; A. Pisano, *La macchina e le forme dell'azione: deficit fronetico e autonomia artificiale*, in Mimesis Journal, Mechané, 1 (1), 2021, pp. 37-53.

15 I. Illich, *op. cit.*, p. 12.

16 Cfr. G. Anders, *Die Antiquiertheit des Menschen. Band I: Über die Seele im Zeitalter der zweiten industriellen Revolution.* C.H. Beck, München 1956; tr. it. di L. Dallapiccola, *L'uomo è antiquato*, 2 voll., Bollati Boringhieri, Torino 2007.

paths and ethical challenges. Not only AI raises new challenges, but these challenges are growing in space and time (fig. 2).

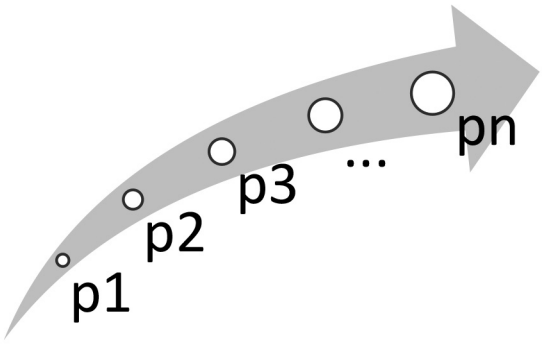

Fig. 2. The arrow represents the path of technology; the single point represents the new challenges and paths (p1, p2, p3, … pn) opened during centuries by different technologies.

3. The 'PAIA' model and culture of Distrust

Building on these premises, the *PAIA model* serves as a conceptual bridge between theoretical and practical analysis. While Gehlen and Illich offer critical frameworks for understanding the existential and cultural consequences of technological saturation, the *PAIA model* operationalizes these insights by providing a structured lens through which examine current transformations driven by artificial intelligence. In particular, it allows us to identify and interpret phenomena that exemplify the very thresholds Illich warned against. For instance, two defining features of contemporary AI – its *invisibility* and *autonomy* – echo Illich's concerns about the erosion of human control and the rise of systems that operate beyond public comprehension or democratic oversight[17]. These characteristics signal a shift from tools that extend human capacities to infrastructures that substitute and, in some cases, displace human judgment and participation. The *PAIA model* captures this shift by mapping how AI systems increasingly mediate decision-making processes, shape cultural expectations, and reorganize social practices in ways that shows a lack of transparency, to those affected by them. Thus, the model not only illustrates the relevance of classical critiques of technology, but also rearticulates them in a form that is attuned to the specific challenges of intelligent systems. It provides a framework for ethical and philosophical reflection that is grounded

17 See also: S. Zuboff, *The Age of Surveillance Capitalism: The Fight for the Human Future at the new Frontier of Power*, Public Affairs, New York 2018.

in concrete technological realities, and thereby contributes to a critical literacy capable of responding to the social and cultural consequences of artificial agency.

According to this idea, four main risks[18] will be considered, even if these new risks are considered "state of facts"[19]:

i. Risk 1 – *Pervasiveness*. Here pervasiveness is not merely assumed as a descriptive trait but as a risk factor because if unchecked, it allows AI systems to infiltrate highly sensitive aspects of daily life (fig. 2). This kind of pervasiveness escalates the potential harm (e.g., loss of privacy, manipulation of behavior), thereby transforming a characteristic of technology into a source of risk and shaping a 'culture of surveillance'.

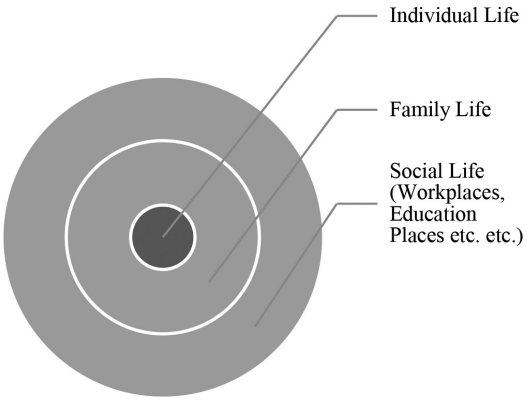

Fig. 3. Three levels of pervasiveness

i. Risk 2 – *Autonomy*. Autonomy is not an issue merely because AI "works by itself"[20], but it turns into a risk due to the possibility of unintended consequences and the potential harm in absence of appropriate oversight. This issue can be approached: (a) from a futuristic point of view, and so it deals with the idea of a super intelligence that will dominates human life; (b) from a present point of view

18 A risk involves two components: the probability of an event occurring and the harm caused by that event. Only *prima facie* pervasiveness, autonomy, invisibility, and adaptivity may imply risks, but they are not risks in and of themselves.

19 See also the issue about "technological determinism" in: A. Dafoe, *On Technological Determinism: A Typology, Scope Conditions, and a Mechanism*, in "Science, Technology, & Human Values", a. XL, n. 6, 2015, pp. 1047-1076.

20 Cfr. É. Sadin, *La Vie algorithmique: Critique de la raison numérique*, L'Échappée, Paris 2015.

considering the Human Computer Interaction model, which means: (b1) preserving human autonomy in co-work and co-living experiences with machines, (b2) limiting AI agency in decision making processes, (b3) thinking a sustainable model of AI, so it cannot reach a level of autonomy as in point (a).

ii. Risk 3 – *Invisibility*. Often seen as a lack of transparency, it constitutes a real ethical risk factor. When AI systems operate with decision-making processes obscured from public understanding, the ethical risk intensifies. Hence, the probability of unethical use and the degree of harm due to hidden biases or exploitative practices reinforce invisibility as more than a technological trait but as a central risk variable. That is why information and education[21] are necessary today and that is why this paper's aim is to design the LEM.

iii. Risk 4 – *Adaptivity*. Adaptivity allows AI to modify its responses based on inputs and context, increasing efficiency. However, this characteristic presents risks when applied in human-centered environments. Adaptive AI, left unchecked, may shape user behavior or decision-making processes without their awareness.

PAIA model is intended to illustrate how seemingly descriptive features of AI function as risk-enhancing characteristics. The risk-based approach usually recalls consequentialist theory. The problem is that when new technologies are considered, it is difficult to adopt a consequentialist approach because not all the results can be foreseen, especially with the AI systems that are increasingly getting more performative in a longer time and in a wider space (fig.1). So, consequentialism can be adopted to program machines as a moral theory apparently based on precise predictions.

To understand this, we can analyze the new cultural environment produced by generative AI in the virtual space (i.e. another extension of human agency according to Gehlen). From the very beginning of social media communication systems, ethical and legal issues have been witnessed in creating potentially deceptive accounts. Users usually interact with entities of unknown origins. This is not only about other people, but also about news and data that are our new cultural enviroment. The new digital world is where people share private and public life. Virtuality is a new system of relationship with the others, where Trust is fully compromised because there is no physical interaction. As long as individuals interact in a physical world, they share their true identities because they show each other: physical presence supports Trust process. This cannot happen in the culture imposed by AI systems, now implemented by the use of Generative AI. The virtual reality is found to be increasingly falsified both in reference to people and information (deepfake). This uncontrolled situation puts the basis for a systemic Distrust which is assumed on normative level. This awareness structurally alters moral subject's interaction with the world, with truth and with others

21 On the topic about AI and Education see also: C. De la Higuera, *A report about Education, Training Teachers and Learning Artificial Intelligence: Overview of key issues*. Université de Nantes, 2018, pp. 1-12; C. Panciroli, P.C. Rivoltella P.C., *Pedagogia algoritmica*, Morcelliana, Brescia 2023.

genereting a culture of Distrust. Individuals live immersed in a Turing test[22] that forces them into a systemic Distrust caused by AI-induced falsification in the cultural enviroment. This originates a potentially hypertrophic skeptical attitude by distorting relationship with others, the world and ourselves generating a culture of Distrust caused by technology development. This model of systemic Distrust also compromises the possibility of a genuine approach to the world. AI is more pervasive, autonomous and adaptive in human imitation, especially when we talk about Generative AI as Large Language Model (e.g. Chat CPT, Bard or systems used in Customer Care Services) or models that generates pictures of people and events. Paradoxically, Distrust becomes an ethical tool to face these new challenges and as a moral reasoning strategy for the epistemological process involving the subject in the virtual space. The transformation of the unknown-environment to a known-world through the process of familiarization could not be applied to virtual world. Moral agents could adopt strategies to verify people, news and data. However, they cannot build a system of Trust where they are completely free to believe that they are interacting with a fake profile or an AI system, even considering that manipulation happens unconsciously with algorithms.

This means that moral agents build two models of interaction for these two dimensions: the physical one is Trust-based, the virtual one is Distrust-based.

Three sub-issues about deepfake, Generative AI and Distrust can be found:

a) Distrust awareness is for those who know that AI is generating new contents, but the problem remains for those who do not know about AI misuse, i.e. children, early adolescents and seniors. If not informed and educated, the technological improvements impose in loop a culture of trivial Trust or skepticism.

b) A Distrust attitude towards the Generative AI systems is not about the AI itself, but it is about those ones who program it. Nevertheless, the AI as a machine can be distrusted because it is programmed in order to reach a goal, but usually it is not clear *how it works* (i.e. the ethical principle of explainability). For instance, the *Libratus* system programmed to win at poker has learned how to bluff to win the game – and bluff is a form of lying. Even the European White Paper in 2019 theorized a model of 'trustworthy' AI. The problem is that individuals as moral agents cannot fully trust specific AI systems as far as they cannot apply the accountability principle through a falsification question: 'Who am I interacting with?'.

c) If new generations are growing up as "digital natives" and if Education does not provide a critical approach as Distrust, the ethical risk could be an exchanged approach to the different ontological *status*. They could completely distrust the physical world and this generates paranoid attitudes provoking anxiety; but they also could trust the virtual world implementing manipulation systems and false beliefs[23].

22 Cfr. A.M. Turing, *Computing machinery and intelligence*, i*n "Mind", a. LIX, n. 236*, 1950, pp. 433-460.

23 Cfr. T. Haynes, *Dopamine, Smartphones and You: A Battle for Your Time,* Harvard University, Harvard 2018. Available on: https://sitn.hms.harvard.edu/flash/2018/dopamine-smart-

According to Simona Tiribelli[24], arguing about algorithms means arguing about personal identity. Algorithms have an unconscious interference on people and their identity. For instance, Recommendation Systems (RS) can provide users values, ideas, interactions that can confirm bias or induce to purchase products they don't really need.

In order to obtain the confirmation bias, algorithms create echo chambers[25] reducing the possibility of individual to know and share heterogenous ideas, values, people, events or products. This means that the algorithms reduce users' knowledge of complexity. This is a first important topic where epistemology of complexity, moral knowledge and a theory of agency interact. The confirmation bias can compromise moral experience and reasoning of individuals as moral agents, reducing the possibility of criticism and pluralism.

The effect of purchasing of products is not related to epistemology of complexity but to the unconscious interference of algorithms used to push people in buying things they don't need, steering them towards specific political, cultural, ethical choices.

Confirmation bias and creation of echo chambers can lead individuals to make social, ethical and political choices they might not make if they were exposed to heterogeneous contents and values. So, algorithms' effect is to create a golden cage where users think to be free and respected in their dignity to choose, when in fact they are in a "bubble" and they do not even know that they can escape. Therefore, "users are used" by algorithms. This means that the systems they use to build social interactions, to buy and to inform themselves are deeply compromised, not respecting personal freedom and personal dignity, as long as personal identity is reduced to a user (this is also a bioethical issue).

This scenario leads to a wider ethical framework, because it includes both best practices in education and in programming. Here, the problem is not only about principles, but how to educate people's moral reasoning in the use of algorithms, supporting strategy to booster our cultural perception of new technologies and how they change our life. An ethical use could be addressed by fostering critical thinking, lateral reading and looking for heteronomous values, principles and experiences when the algorithms create echo chambers.

Such a moral reasoning works as far as individuals know that they are prisoners in an epistemic bubble. If the user is unconscious of this process, then it cannot escape the bubble. An epistemic bubble compromises autonomy because it reduces the free research of the users, then – in conclusion – it compromises human autonomy, which means compromising human dignity. That is why awareness about algorithms and critical use of Distrust can help individuals as moral agent: they both support new forms of moral reasoning.

phones-battle-time/; J. Haidt, *The Anxious Generation. How the Great Rewiring of Childhood Is Causing an Epidemic of Mental Illness,* Penguin, New York 2024.

24 Cfr. S. Tiribelli, *Identità personale e algoritmi. Una questione di filosofia morale*, Roma, Carocci 2023.

25 Cfr. W. Munroe, *Echo chambers, polarization, and "Post-truth". In search of a connection,* in "Philosophical Psychology", a. XXXVII, n. 8, 2023, pp. 2647-2678.

4. Partial Conclusions

Artificial Intelligence, as both a technical system and cultural force, urges us to move beyond simplistic binaries of optimism and alarmism. Drawing on Gehlen's anthropology, we understand technology not as an external prosthesis but as a constitutive element of human culture–an "artificial nature" that actively shapes our environment and social structures. Yet, the positive potential of this relationship hinges on recognizing limits. Here, Illich's concept of the "critical threshold" is essential: when technologies surpass certain thresholds, they risk deforming rather than supporting human culture, turning tools into systems of dependence and alienation. In both authors we find this need to analyze such threshold, according to the history of technology and revolutions in human's life, as Maria Teresa Pansera writes:

> With the transition to the industrial era, humanity crossed a "new cultural threshold." According to Gehlen, there are in fact two "ruptures", two truly decisive "revolutionary turning points" in the history of civilization: the first in prehistoric times, marked by the shift from a nomadic, hunting-based life to a sedentary, agricultural one; the second in the modern age, with the advent of industrialized society. In both cases, a "stabilization of the external world" takes place, which involves not only the satisfaction of primary needs, but transforms the entire mode of human existence – not only at the economic-productive and organizational levels, but also culturally, morally, and spiritually.[26]

To normalize the effect of AI impact, analyzing real risks and improving human approach to this new technology, it was essential to draw a draft of AI genealogy (fig. 2). The first step is to promote a culture of trustworthiness about AI, providing a clear collocation in history of technology; the second step is to provide a clear ethical framework human-centered and based on human supervision in order to protect the thresholds.

The *PAIA model* – Pervasiveness, Autonomy, Invisibility, Adaptivity – offers a framework to measure when and how AI crosses the thresholds, enabling a normative shift from factual acceptance to cultural and ethical regulation. It serves not only as a diagnostic tool but also as a safeguard: a way to monitor AI's presence in our lives so that it does not substitute human judgment, relationality, or agency.

In this sense, cultivating a convivial relationship with AI requires rethinking culture not as resistance to technology, but as the active shaping of a shared space where the human and the machine can coexist without erasing each other. Culture, in its original meaning of *colere* – to cultivate – invites us to tend to both the soil and the soul, to align external transformation with inner development. The aim is not to reject AI, but to foster a positive culture of cohabitation, one that defuses the catastrophic tension between technology and culture that defined much of modern critique.

26 M.T. Pansera, *La specificità dell'umano. Percorsi di antropologia filosofica*, Inschibboleth, Roma 2019, p. 118. My translation from italian.

Against the backdrop of this historical opposition – now challenged by the rise of "technical culture" or even "cultivated technology"– this perspective suggests that what is needed today is neither resignation to techno-determinism nor nostalgic resistance, but the construction of a critical, normative, and practical ethics of coexistence, grounded in human dignity, cultural resilience, and institutional awareness.

A main framework of Anthropological Philosophy is today essential to understand limitations and development of new intelligent technologies within human world and culture. In this paper the most important idea is to assume the difference between false and real problem, avoiding catastrophic perspective and analyzing how it is possible to think a new cultural understanding of AI, addressing its possible risks. This means that we are already involved in a deep transformation and that a strong use of AI has already taken place in our daily life. It is our new "artificial nature", so the best way is to work in order to design co-living and coworking cultural with AI technology. That is why is really essential to analyze the main risk categories, as we cannot merely assume that every technology is equal to the previous. The more it is pervasive, the more we need to discriminate the difference between state of facts and normative level. AI technology imposes a new way of looking at human culture: it should be assumed as a culture of conviviality between human and artificial intelligence. This means that the ethical regulation cannot be taken into account separately from AI development and previous genealogy with other technologies. The narrative on AI should be written not in the catastrophic sense of a super-intelligence which will takes over the world. It should be critically assumed as a natural development of artificial tools which help humans in their mutual relationships, in generating new and realistic values and principles. The main idea is that AI remains human-centered as we are always ready to recognize the role of supervision, underlying which is the critical threshold to imagine new form of conviviality and human culture, even assuming the possibility of a co-existence with AI.

Bibliografia

Anders G.,
1956 *Die Antiquiertheit des Menschen. Band I: Über die Seele im Zeitalter der zweiten industriellen Revolution.* C.H. Beck, München; tr. it. di L. Dallapiccola, *L'uomo è antiquato*, 2 voll., Bollati Boringhieri, Torino 2007.

Dafoe, A.
2015 *On Technological Determinism: A Typology, Scope Conditions, and a Mechanism*, in "Science, Technology, & Human Values", 40, pp. 1047-1076.

De la Higuera, C.
2018 *A report about Education, Training Teachers and Learning Artificial Intelligence: Overview of key issues*. Université de Nantes, pp. 1-12.

Foucault M.,
1977 *Nietzsche, Genealogy, History*, in D.F. Bouchard (a cura di), *Language, Counter Memory, Practice: Selected Essays and Interviews*, Cornell University Press, Ithaca.

Gehlen, A.,
1961 *Anthropologische Forschung,* Rowohlt, Reinbek,1961; tr. it. di S. Cremaschi, *Prospettive antropologiche. Per l'incontro con se stesso e la scoperta di sé da parte dell'uomo*, Il Mulino, Bologna 1987.

Gehlen, A.
1978 *Der Mensch. Seine Natur und seine Stellung in der Welt*, Akademische Verlagsgesellschaft Athenaion, Frankfurt a. M.; eng. tr. by Clare McMillan and Karl Pillemer, *Man, His Nature and Place in the World*, Columbia University Press, 1988.

Haidt J.,
2024 *The Anxious Generation. How the Great Rewiring of Childhood Is Causing an Epidemic of Mental Illness,* Penguin, New York.

Haynes, T.
2018 *Dopamine, Smartphones and You: A Battle for Your Time,* Harvard University, Harvard.

Avaiable on: https://sitn.hms.harvard.edu/flash/2018/dopamine-smartphones-battle-time/.

Illich, I.
1973 *Tools of Conviviality*, Harper&Row, New Yok, NY, 1973.

Mordacci R.,
2022 *La genealogia come metodo di ricerca in etica*, in P. Donatelli (a cura di), *Le storie dell'etica. Tradizioni e problemi*, Carocci, Roma 2022.

Mori, M.
2010 *Manuale di Bioetica. Verso una civiltà biomedica secolarizzata*, Le Lettere, Firenze.

Munroe, W.
2023 *Echo chambers, polarization, and "Post-truth"*, *In search of a connection,* in "Philosophical Psychology", a. XXXVII, n. 8.

Nietzsche F.,
1887 *Zur Genealogie der Moral. Eine Streitschrif*, C.G. Nauman, Leipzig; tr. it. di F. Masini, *Genealogia della morale. Uno scritto polemico*, Adelphi, Milano 2017.

Orsucci, A.
2001 *La genealogia della morale di Nietzsche. Introduzione alla lettura,* Carocci, Roma.

Panciroli C., Rivoltella P.C.,
2023 *Pedagogia algoritmica*, Morcelliana, Brescia.

Pansera, M.T.
2019 *La specificità dell'umano. Percorsi di antropologia filosofica*, Inschibboleth, Roma 2019.

Pisano A.,
2021 *Il perturbante artificiale. Livelli di complessità e interfacce possibili fra umano e IA*, in "Kaiak. A Philosophical Journey", a. VIII, n.1

Pisano A.,
2021 *La macchina e le forme dell'azione: deficit fronetico e autonomia artificiale*, in Mimesis Journal, Mechané, 1 (1), 2021, pp. 37-53.

Russell, S.
2020 *Human Compatible. Artificial Intelligence and the Problem of Control,* Penguin, London.

Sadin É.,
2015 *La Vie algorithmique: Critique de la raison numérique*, L'Échappée, Paris 2015.

Tiribelli S.,
2023 *Identità personale e algoritmi. Una questione di filosofia morale*, Roma, Carocci 2023.

Turing, A.M.
1950 *Computing machinery and intelligence*, in "Mind", a. LIX, n. 236.

Zuboff, S.
2018 *The Age of Surveillance Capitalism: The Fight for the Human Future at the new Frontier of Power*, Public Affairs, New York.