Accountability of Artificial Intelligence: An Analysis Using Edgar Morin's Complex Thought

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Abstract : Artificial intelligence (AI) can be held accountable for its detrimental impacts. This question gains heightened relevance given AI's pervasive reach across various domains, magnifying its power and potential. The expanding influence of AI raises fundamental ethical inquiries, primarily centering on biases, responsibility, and transparency. This encompasses discriminatory biases arising from algorithmic criteria or data, accidents attributed to autonomous vehicles or other systems, and the imperative of transparent decision-making. This article aims to stimulate reflection on AI accountability, denoting the necessity to elucidate the effects it generates. Accountability comprises two integral aspects: adherence to legal and ethical standards and the imperative to elucidate the underlying operational rationale. The objective is to initiate a reflection on the obstacles to this "accountability," facing the challenges of the complexity of artificial intelligence's system and its effects. Then, this article proposes to mobilize Edgar Morin's complex thought to encompass and face the challenges of this complexity. The first contribution is to point out the challenges posed by the complexity of A.I., with fractional accountability between a myriad of human and non-human actors, such as software and equipment, which ultimately contribute to the decisions taken and are multiplied in the case of AI. Accountability faces three challenges resulting from the complexity of the ethical issues combined with the complexity of AI. The challenge of the non-neutrality of algorithmic systems as fully ethically non-neutral actors is put forward by a revealing ethics approach that calls for assigning responsibilities to these systems. The challenge of the dilution of responsibility is induced by the multiplicity and distancing between the actors. Thus, a dilution of responsibility is induced by a split in decision-making between developers, who feel they fulfill their duty by strictly respecting the requests they receive, and management, which does not consider itself responsible for technology-related flaws. Accountability is confronted with the challenge of transparency of complex and scalable algorithmic systems, non-human actors self-learning via big data. A second contribution involves leveraging E. Morin's principles, providing a framework to grasp the multifaceted ethical dilemmas and subsequently paving the way for establishing accountability in AI. When addressing the ethical challenge of biases, the "hologrammatic" principle underscores the imperative of acknowledging the non-ethical neutrality of algorithmic systems inherently imbued with the values and biases of their creators and society. The "dialogic" principle advocates for the responsible consideration of ethical dilemmas, encouraging the integration of complementary and contradictory elements in solutions from the very inception of the design phase. Aligning with the principle of organizing recursiveness, akin to the "transparency" of the system, it promotes a systemic analysis to account for the induced effects and guides the incorporation of modifications into the system to rectify deviations and reintroduce modifications into the system to rectify its drifts. In conclusion, this contribution serves as an inception for contemplating the accountability of "artificial intelligence" systems despite the evident ethical implications and potential deviations. Edgar Morin's principles, providing a lens to contemplate this complexity, offer valuable perspectives to address these challenges concerning accountability.

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