

Less Visible Risks of AI-based Technologies: the civilizational threat of discursive and epistemic dysfunction

Context

The lines below were read on December 5th at the Santa Maria Bambina Institute in Vatican City, during the launch of the book *Artificial Intelligence and the Care for our Common Home*,¹ published by Vita e Pensiero, Milano. Pope Leo XIV received the authors and blessed the book² by morning, with the afternoon being dedicated to the academic event.

The volume has sixteen chapters, an introduction by Cardinal José Tolentino de Mendonça, and a presentation by Anna Maria Tarantola, who managed the publication at the prior request of Pope Francis. The chapters were divided into seven blocks: General Issues, Economic & Industry, Finance, Communication, Education, Regulation, and Conclusions.

The shortest way to highlight the importance of the project is to cite some initial and final words from Cardinal Tolentino's introduction, in which Pope Francis is quoted several times:

1 Tarantola, Anna Maria (ed): *Artificial intelligence and the Care for our Common Home – a focus on Industries, Finance, Education and Communication*. Milano: Vita e Pensiero, 2025. E-book available for free in <https://www.vitaepensiero.it/cerca.php?s=common+home>

2 Pope Leo XIV's speech is available in <https://www.vatican.va/content/leo-xiv/en/speeches/2025/december/documents/20251205-conferenza.html>

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*We are living through a change of era, not just an era of change, and we are called to reflect on, discern and choose the direction we wish to take for this epochal transformation. Digital technologies are not merely reshaping the tools of our daily actions; they are pushing us to profoundly question our understanding of the individual, society, and the very meaning of life and human action.*³ (p. 7)

At the end of his writing, he says:

*The wealth of disciplinary approaches and value-based perspectives found in these essays reveals a fundamental fact: for technological innovation to be truly human, it must be guided by an ethic of care, justice and truth. [...] This volume helps us embark on that journey.*⁴ (p.13)

As a founding member of SACRU (Strategic Alliance of Catholic Research Universities), PUC-Rio has contributed to the book with its third chapter, “Less Visible Risks of AI-based Technologies,” written by Clarisse de Souza and Edgar Lyra. Both professors were present at the launch ceremony. They agreed that Professor Lyra delivered the presentation and that it would be addressed in the first person.

The text is, in any case, the fruit of a rather long academic collaboration⁵. The deepening of technological hegemony, especially the advent of Generative AI, opened a window of concern that demands transdisciplinarity. The complexity involved requires dialogue among fields such as Philosophy, Computing, Law, Design, Psychology, History, Economics, and Social Sciences, among others. Above all, the debate is supposed to be built in a sober and comprehensible way.

Pope Francis’ initiative that gave rise to the book – and its confirmation by Pope Leo XIV – has been especially wise. They point out the necessity of discussing how to orient and regulate AI development and use, with a view to Christian humanism and the Church’s social doctrine, in other words, transcending instrumental and hype questions.

3 Mendonça, Cardinal José Tolentino. Introduction. In op. cit. p.7.

4 Idem, p. 13.

5 Retraced back to 2020 and to the creation of the EMAPS – Ethics and Algorithm Mediation of Social Processes.

The authors of the chapter stand especially by the role of universities in fostering such a debate, crucial to the whole world, both Christian and non-Christian, human and non-human. The words below resume this effort.

Presentation

We would first like to thank SACRU and the Centesimus Annus Foundation for this kind initiative, especially to Anna Maria Tarantola, Cardinal Tolentino, and the chapter's reviewers, Alejandra Marinovic and Andrea Gaglioli.

The third chapter of the book is titled "Less Visible Risks of AI-based Technologies: the civilizational threat of discursive and epistemic dysfunction." It is the only one signed by two authors, Clarisse de Souza and me.

Our contribution is the result of an actual transdisciplinary effort. Clarisse began her professional life as a linguist and later entered the field of Computer Science. I started my career as a chemical engineer and later transitioned to Philosophy. It's been a fruitful partnership that has lasted more than five years and has attracted senior and junior colleagues from many distinct areas.

Well understood, these previous lines are relevant because one of the key requirements for successfully coping with the AI challenge is the development of a true transdisciplinarity. In many aspects, this book confirms this perception.

Overall, our contribution is indeed simple. We praise the current regulatory efforts but draw significant attention to other subtle and structural questions that have so far been less visible in the broader landscape. We mean shifts in our perceptions of space and time, in our opinions and knowledge, in our speech and intelligence, in our sense of community, and even the very idea of humanity.

In this sense, it is necessary to stress that human beings are not dealing with mere tools subject to their sovereign use, but with a network of devices arranged on a planetary scale, similar to an artificial environment. We must thus, forcibly, examine how technology is increasingly shaping our existence through its very use.

Three kinds of subtle transformations are analyzed in the text: space-time orientation, discursivity, and epistemic shifts. These phenomena are not merely side effects of AI development; thus, even the soundest norms and policies could not successfully mitigate them. We are talking about existential transformation, not something inherently evil, but something that, in any case, must be thought through in light of its possible irreversible consequences.

In short, orientability concerns our daily rhythm, habits, and directions in our common home. Discursivity is understood in the text in an Aristotelian sense, as that which makes us human, which grants our sense of community, and, among other wonders, affords the negotiation of small and big issues. Just imagine what would happen if, in the light of the present dialogical transformations, we faced a communicative collapse. It wouldn't be easy to formulate our decisive questions, let alone elaborate on good norms and policies. Finally, we address the need to examine how we use AI in research, where, by definition, we are dealing with the unknown. To date, science has been shared and evolved by making its production processes open to inspection. This has been the foundation of epistemic authority. Therefore, we must ask how the blind spots of AI interventions will affect our conception of knowledge and knowing.

For all those reasons, we must think beyond regulation towards a constructive educational and broad ethical framework to guide AI's future role in civilization. Given the improbability that "the technological market" may spontaneously address this kind of problem, we claim that universities constitute our best chance of tackling the challenge. We thus face a form of folding the question back on itself. To remain a sound and authoritative voice in the contemporary world, universities must undergo deep revision, especially considering the referred epistemic and methodological transformations driven by algorithms.

We gave in the text some examples of such disruptions and raised crucial questions about those subtle transformations, examples that we can't unfortunately restore here.

Finally, to dispel a potential shadow of pessimism, we shall say that present urgencies can also be viewed as a unique opportunity for broad ethical reflection and the reexamination of key civilizational concepts, for example, dialogical responsibility and epistemic authority affordances.

We must, however, ask: - What comes next, if we fail in bringing this question to light?

Bibliography

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