

Review of: "A Perspective for Economic and Social Unfoldings of AI"

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Potential competing interests: No potential competing interests to declare.

This article offers an interesting and eclectic reflection on the potential advantages and perils of the use of artificial intelligence methods for socio-economic purposes. The manuscript is well written, it raises relevant issues, and it is adequately grounded in the existing literature. Overall, it is a meaningful piece of research on the epistemology of artificial intelligence and machine-assisted organization of work.

There is room for improvement, though. Below, I list some of the points that, in my view, would benefit from a careful additional consideration:

- a) The paper is excessively dispersed and lacks focus. This becomes evident when one reads the introduction or the conclusion: it begins by addressing the socio-economic impact of AI; then it jumps to etymological issues; it proceeds to the discussion of education, business, and funding models; a more technical section on fuzzy logic and optimization then follows; and, in the end, we are back at the socio-economic impact of AI. This dispersion is also evident in the abstract: by reading the abstract, the reader is unable to understand what the article is truly about.
- b) Emphasis is placed in semantics. The author considers urgent to establish precise concepts and definitions to replace the current notions of *Artificial Intelligence* and *Machine Learning*, which the author classifies as buzzwords and mythical expressions. I admit that designations are important, but in this case, I do not believe that this is the most important issue (in the sense that not much would change in the evolution and implementation of automated processes if the designations were others). I raise the same question that the author at some point expresses: is it really necessary to invent new names for old things or is it a waste of time and energy?
- c) From an economic point of view, some arguments raised in the text are problematic. Saying that firms are usually uninformed, that they 'get convinced' to replace men by machine in a way that may not be rational for business, or that companies frequently take decisions that may not be well founded, are all assertions that are hardly compatible with what empirical evidence demonstrates (if there is an economic agent that most closely pursues rational behavior, this agent is undoubtedly the firm). Throughout the text, other arguments raise doubts concerning their economic reasonability; e.g., the author claims that, in what concerns AI, firms should be independent and, thus, not depend on external agents. While this may be true in some specific circumstances, the norm in contemporaneous societies is the division of labor and the pursuit of the benefits that comparative advantage brings.
- d) Section 4 appears somehow out of context. It introduces some analytical content on a paper that is essentially a



discussion essay on the pros and cons of artificial intelligence. It is not clear, as well, how the mentioned analytical techniques directly link to the issues being discussed about the organization of AI activities.

With the hope that the above considerations can be used to further improve the manuscript, I offer my best regards.