

A Critique of Pure AI: Comparing the Social Foundations of Artificial Intelligence and the Web

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In this work, we critically examine the founding assumptions of "pure" artificial intelligence, including the recently popularized "singularity hypothesis" of Kurzweil that predicts the emergence of a genuine artificial intelligence with "beyond human" intelligence. We contrast these classical assumptions about intelligence being "located" in the individual with developments in "crowd-sourcing" in the Web. While Dreyfus and others have successfully examined the foundational assumptions of AI based on cognitive and ontological grounds, we wish to critique the assumptions of AI on social grounds and theorizing its future explications on wider social formations driven by the Web.

The history of artificial intelligence is intimately tied to both the concept of intelligence as being "in the head" of individuals, and the wider social conditions around work. The initial momentum behind the some of the focus of the artificial intelligence project came from the labor shortages caused by World War II, and so the idea of the increased mechanization of work by producing robotic workers with "human level intelligence" was a natural extension of larger trends in mechanization. Yet why stop AI at human level intelligence?

The emergence of the singularity AI transform our fundamentally social categories, in particular how we organize our production and consumption? Take as an example the category of "work". If one did indeed create an artificial intelligence, what use would the humanity or singularity have for "work" as we understand it as regards the "institutional facts" of Searle such as money and credit? The singularity would be able to transform the world in almost arbitrary ways using its advanced technological capabilities, and would have the ability to create almost arbitrary products. Imagine if thousands of bottles of apple jam could be produced via advanced AI technologies - then to what extent would having harvesters "work" in apple orchards, workers in factories turning raw apples into jams, and then people stock apple jam in store shelves, and then exchange those for bottles of jam for money? The entire idea of a "work" would be rendered unintelligible by the advent of the singularity.

Almost every point in production (and consumption) would be radically altered to be nearly unintelligible. Yet one of Kurzweil's unquestioned assumptions is that the rate of technological growth would to some extent force the creation of the singularity. Yet this argument is unconvincing, as the motivation for technological evolution is market competition. A super-intelligent AI would render market competition obsolete, hence abolishing its own conditions. So despite the talk of Dennett-inspired "Google Consciousness", why would our current social structure find the creation of intelligence in the "long-term" to be of inherent value? In fact, given current social conditions, which include the creation of a large surplus human population due to the success of mechanization and globalization, there is a natural tendency instead towards "crowd-sourcing" to solve AI problems,

leading to the widespread popularity of new products like the "artificial artificial intelligence" of Amazon Mechanical Turk.

We also hypothesize that there are alternatives to how of we conceive of intelligence that would allow us to re-shape both the philosophical project of AI and its research programme, making it more coherent with the existing social conditions and the Web. Instead of focusing on "artificial intelligence" and the myriad related philosophical pitfalls (such as following some kind of individual or brain-identity theory with intelligence), AI researchers could focus on intelligence as being located in an extended human-machine-environment assemblages mediated by the Web, a philosophical position resonant with Heidegger and Dewey as well as recently re-invigorated by the empirical-minded philosophy of Andy Clark. This would allow the AI project to take advantage of the recent upsurge in social computation given by the new dynamics of post-industrial work and thus provide a more realistic vision for the future of both AI and the Web.