Successful AI-enabled science, research, and innovation for a prosperous Europe

Breakthroughs, prospects, and outcomes for novel policy and philosophical insights

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In 1922, Ludwig Wittgenstein pontified and discussed in his magnum opus *Tractacus Logico-Philosophicus* how far and to what extent "the limits of my language are the limits of my world". Artificial Intelligence (AI) is an unprecedented frontier of information management technologies, imbuing, inspiring and permeating science, research, and innovation. Thanks to its unparalleled potentialities, AI tantalizes human imagination, projections, hopes, fears, as well as utopic and uchronic expectations. Becoming ubiquitously and pervasively impacting on economy, industry, society, sustainability, politics, and culture, AI developments require both novel policy insights and pioneering philosophical discernments, aiming at nurturing innovative governance models. In fact, AI traces an unparalleled moving frontline across science, research, and technology, involving, depicting, and anticipating known, unknown, and unpredictable potentialities and threats. On the one hand, challenges stemming from progress in science, research and technology are currently evoking, instilling, and inspiring innovative and far-reaching AI designs, developments, and achievements: on the other hand, their advances, forethoughts, and foresight aim at stimulating, infusing, and fueling novel potentialities back into science, research, and innovation themselves.

This leads to a progressive AI integration, uptake, and embedment into science, research, and technological innovation at diverse layers: multidisciplinary, by enabling different disciplines to work together, each drawing on their disciplinary knowledge; interdisciplinary, by facilitating the assimilation of knowledge and methods from diverse specialties into a synthesis approach; transdisciplinary, by intelligizing the unison of both conceptual and intellectual frameworks beyond disciplinary approaches and perspectives. On the one side, by radically augmenting, expanding, and empowering science, research, and technology performance, efficiency and accuracy, AI enhances their outputs, upshots, and outcomes. On the other side, AI empowerments could aim at mirroring, mimicking, and altering most representations, depictions, behaviors, and symbols of human reality, either perceived or concrete, ultimately affecting and jeopardizing their credibility and trustworthiness.

Doing so, AI could manage to reshape, steer, and manipulate most human faculties and prerogatives such as perceiving, feeling, thinking, believing, choosing, deciding, and acting. Therefore, AI could succeed to profoundly affect and impinge on the core of human identity, self, and nature, managing to subdue, bundle, sway and maneuver their hypostases and emanations. Clearly, conceiving, creating, and developing innovative and ground-breaking literacy models on AI in education are consequentially needed, aimed at discriminating between AI-generated and human-created contents, henceforth demystifying AI-engendered faked and counterfeited contents. Therefore, designing novel, consequential, and far-reaching policy lookouts, insights, and foresights – as well as ground-breaking philosophical discernments – is pivotal to develop innovative governance patterns, which are essential, desirable, and praised. These should be vowed to enable mankind to fully benefit from the undeniable rewards AI empowers, simultaneously mitigating, masterminding, and governing its potentially devastating downsides and snags for both humankind and humanity.

This ultimately claims for a fresh new philosophical attention, requiring an honest, perspicuous, and introspective reflexion on the notion of *intelligence* to complete the picture: it deepens the comprehension of its authentic meaning, scope, and settings, as its etymon stems from the Latin "*intus legere*", i.e.: inwardly reading. So, reading inwardly AI itself relativizes its enthralling prospects, alluring beliefs, and enticing mindsets. AI should empower man without enhancing nor substituting what is intrinsically and inherently human: conscience, self-awareness, feelings, emotions, intellect, metaphysical thought, and discernment. These typifying human faculties and prerogatives structure, imbue, and root for responsibility, enabling it to exert and wield the free will.

In this light, Immanuel Kant's archetypical paradigm is particularly revealing, edifying, as well as inspiring: "the starry heavens above me and the moral law within me".