

# ARTIFICIAL INTELLIGENCE AND THE FUTURE OF CREATIVE THINKING

*Extended Abstract for Greeks in AI 2026 Symposium*

## 1. Abstract

Artificial Intelligence (AI) and Creative Thinking (CT) form a paradox that is rapidly reshaping the landscape of education, creativity, and human cognition. While concept generation, visualization, pattern analysis, and information acceleration promise exciting opportunities for both students and educators, they simultaneously raise profound questions regarding the nature of creative thought, learning processes, and the future of human agency in knowledge creation. What is the positive contribution of AI, and what are its risks? Is there a danger of AI being used as a replacement for creative thinking? According to Plato's *Meno*, human knowledge is not merely the passive reception of external information, but the recollection (*anamnesis*) of innate truth, triggered through guided questioning and *aporia*.

The core challenge is how creative thinking can maintain its connection to the One, the Good, the unity of the soul, and consequently, the recollection of truth, virtue, and good intention, in order to attain and utilize knowledge in the most ideal way. Excessive reliance on AI may lead to the questioning of knowledge itself, leaving students without evaluation criteria, resulting in the acceptance or even defense of false or incomplete "truths" devoid of conscious choice and moral discernment. This pedagogical approach positions Artificial Intelligence as a supportive partner—not a substitute—in creative learning, highlighting human creativity and reflective learning while presenting pathways for collaboration, problem-solving, and mutual support.

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## 2. Introduction — Why This Matters Now

- AI is rapidly transforming how students access information, visualize ideas, and interact with knowledge.
- While AI amplifies speed and breadth of access, there is a critical need to examine effects on creative thought, embodied experience, and long-term cognitive development.
- The project situates itself at the intersection of education, psychology, art, and philosophy — exploring how AI influences not only what we learn, but how we learn.

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## 3. Conceptual Framework — Human Cognition vs. AI

- Human learning depends on embodied, reflective experience — the brain records, interprets, and emotionally integrates sensory information.
- Each person's perception is shaped by expectations, knowledge, motivations, and belief systems — these are uniquely human, not reducible to data patterns.
- AI debates activate questions of ontology: what does it mean to be human when machines can simulate outputs that resemble thought?

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## 4. The Platonic Perspective & Meno's Dialogue

### A. The Socratic Elenchus and the Search for Essence

- Socrates shifts the discussion from the question "whether virtue can be taught" to the more fundamental: "what is virtue."
- He demands a clear and universal definition from Meno, highlighting the critical importance of conceptual precision.
- Meno responds descriptively, tying virtue to social roles and diverse functions, reflecting a superficial understanding based on isolated examples rather than core essence.
- Socrates rejects this position, arguing that a valid definition must express the common and immutable element that governs all manifestations of virtue.
- In trying to formulate a universal definition, Meno equates virtue with justice. Socrates points out that justice is merely a part of virtue, not its essence, highlighting the distinction between part and whole.
- Subsequently, virtue is defined as the desire for good things combined with the power to acquire them. However, through dialectical examination, it becomes clear that the acquisition of the good already presupposes the presence of justice.
- Thus, the definitions remain circular and inadequate, failing to reveal the true essence of the concept. Socrates then introduces the Theory of Recollection, arguing that knowledge is not acquired, but recalled by the soul, which pre-exists and contains the truth.

### B. Meno's Paradox and the Theory of Recollection

- The dialogue in *Meno* begins with a meeting in Athens, where Meno poses a fundamental question: can virtue be taught, or is it acquired in some other way?
- This leads to Meno's core philosophical dilemma: how can we search for something when we do not know exactly what we are looking for? If we already know it, there is no need to search; if we do not know it, we cannot recognize or seek the object of knowledge.
- This paradox challenges the very possibility of learning and cognitive inquiry. Plato responds through the theory of recollection (*anamnesis*): knowledge is not acquired externally, but is recalled from within the soul.
- Learning, therefore, is inherently linked to reflection, questioning, and philosophical inquiry, rather than passive memorization. Under the lens of Plato, judgment is inherently linked to this process of recollection, where knowledge emerges through internal processing, philosophical inquiry, and *aporia* (guided doubt).

- In education, this translates into a pedagogical approach that fosters reflection, self-regulation, and critical thinking, rather than mechanistic memorization. Judgment is developed through experience, dialogue, and the conscious recognition of cognitive errors.
- A fundamental connection emerges in *Meno*: knowledge, virtue, and the soul form a unified system. Virtue is not presented as teachable knowledge, but as the result of internal cultivation and, in some cases, divine inspiration (*theia moira*).
- Exhibiting philosophical humility, Socrates states that he does not know what virtue is, using this as a methodological starting point to spark critical thinking and reflection.

### C. Knowledge vs. Right Opinion

- Learning is understood as a process of recollection through questioning, reflection, and internal activation. Through dialogic guidance, it is demonstrated that even without prior instruction, humans can approach the truth.
- Concurrently, it appears that virtue is not fully equated with knowledge; it can manifest through right opinion (*orthē doxa*), which is not necessarily accompanied by full understanding.
- Socrates connects this dimension to divine inspiration, arguing that right action can be guided by an internal or transcendent source, even without conscious justification.
- Socrates distinguishes two fundamental forms of guiding action: knowledge (*epistēmē*) and right opinion (*orthē doxa*). Both can lead to correct decisions; however, they differ in stability and depth of understanding.
- Knowledge is grounded in justification and reasoning, making it enduring and reliable. Conversely, right opinion, although it may be true, remains fragile, as it is not accompanied by conscious understanding. Thus, it becomes clear that correct action does not always presuppose full knowledge, but can also be guided by correct beliefs.

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## 5. The Human Mind, Creativity, and the Unpredictable

- The essence of human consciousness lies in unpredictability, the catalytic event, and existential invention — the “*deus ex machina*” that disrupts algorithmic predictability.
  - Life and learning are not merely data processing — they involve qualia, meaning, emotional resonance, and ethical judgment.
  - Creativity thrives in tension: no challenge  $\rightarrow$  no growth; no struggle  $\rightarrow$  no meaning; no risk  $\rightarrow$  no satisfaction.
  - AI's capacity to accelerate information production must be examined in relation to human consciousness, reflective correction, and semantic understanding.
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## 6. Positive Contributions of AI in Creative Thinking

- AI can prioritize, analyze, and generate ideas, providing initial scaffolding for exploration.
  - As a mediator, AI supports idea generation, imaginative extensions, and cross-disciplinary synthesis.
  - When used with intention, AI becomes a partner for reflective inquiry — not a replacement for creative agency.
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## 7. Risks and Paradoxes of AI Adoption

- AI encourages passive consumption and externalizes attention — leading to cognitive offloading rather than deep processing.
  - Fast outputs can bypass assimilation time, weakening memory consolidation and reflective thinking.
  - There is a danger of neuronal atrophy if students rely exclusively on AI for problem-solving and exploration.
  - Education heavily reliant on AI risks cultivating passive consumers of information rather than active thinkers. Students may become disconnected from the joy of discovery, the expression of curiosity, and the pursuit of truth-knowledge, potentially weakening cognitive resilience, neural diversity, and the cultivation of their unique creative identity.
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## 8. The Ethical Dimension of Knowledge and AI

- Ethical judgment cannot be automated — values, empathy, moral discernment, and emotional nuance are irreducible to statistics.
  - AI “knows what happened,” not how it felt — yet feeling, embodiment, and existential presence are critical to learning.
  - AI works with averages and probability, but each human experience is unique and contextually meaningful.
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## 9. Pedagogical Implications

- Education must balance AI as a tool with practices that cultivate attention, reflection, creativity, imagination, and ethical awareness.
- Teachers and students require metacognitive scaffolds to interrogate AI outputs critically.
- The focus should be on how to question, how to integrate, how to interpret — not just what to produce.

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## **10. Future Directions & Research Questions**

- How does sustained AI use shape creative neural pathways over time?
- Can we design pedagogies where AI enhances embodied cognition and reflective judgment?
- What assessment models honor originality, emotional complexity, and ethical reasoning in an AI-mediated future?

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## **11. Conclusion — Toward a Balanced AI Pedagogy**

- AI will continue to be central in education, but it should expand human possibility, not replace it.
- The goal is human-centered learning where technology amplifies conscious choice, integrity, and imaginative agency.
- Creative thinking remains a human art — one nurtured through challenge, time, reflection, and ethical engagement.

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