

Academic writing and AI: Day-4 experiment with mindsponge theory

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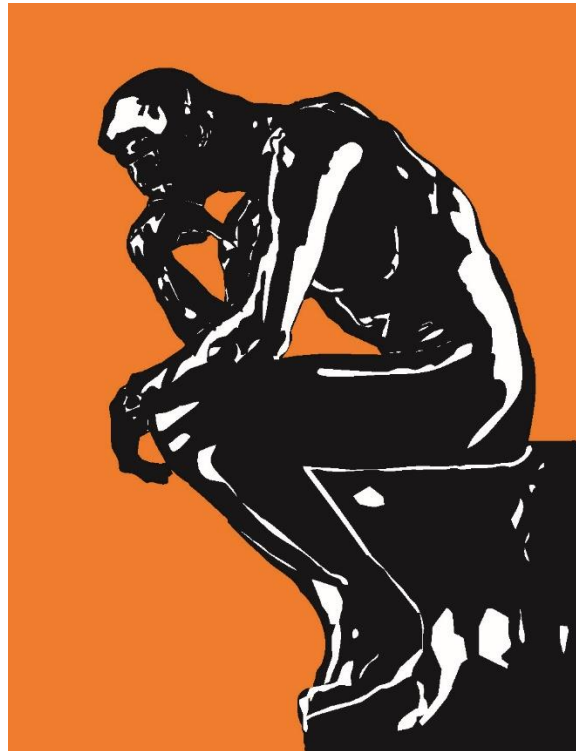
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Introduction

Artificial Intelligence is a useful tool that can help humans substantially reduce their energy and time in doing tasks and solving problems. Recently, academics have been amazed by the writing skills of the AI bot ChatGPT. For example, the AI bot is now capable of writing an essay [1] and an article on The Guardian [2]. The question is: can AI write an academic article?

After several experiments with ChatGPT and YouChat, I realized that it is still too soon for AI to do so. The AI lacks the systematic reasoning capability to write a multi-paragraph essay that requires precise and detailed information. However, my colleague, Tam-Tri Le, suggests

that academics can actually “befriend” and collaborate with AI to ease the writing task [3]. His idea is to give AI detailed prompts to generate individual paragraphs, then combine them together. Finally, with the validation and edition of humans, humans and AI can still collaborate to generate a multi-paragraph essay with precise and detailed information suitable for academic writing.

To further check the ability of AI to identify precise and detailed scientific information, I continue experimenting with how accurate AI recognizes scientific terms, their origins, meanings, and usages, and whether the accuracy increases over time. The experiment targets are:

- 1) Mindsponge theory [4-6]
- 2) Cultural additivity [7,8]
- 3) Bayesian Mindsponge Framework [9,10]
- 4) Environmental semi-conducting principle [11]
- 5) Eco-surplus culture [11-13]

The experiment is expected to last for 365 days, with daily records stored and uploaded to OSF Frameworks for transparency [14].

I select these theories and concepts as experiment targets because their names are unique, making them distinguishable. Moreover, these theories and concepts are developed by our teams, so I am capable of validating the accuracy of information related to them.

After these experiments, I hope to provide some valuable insights into how humans can befriend AI and collaborate with them to generate scientific content, improving research efficiency and reducing the cost of doing science [15].

Day-4 Experiment with mindsponge theory

Employed AI: YouChat (<https://you.com/search?q=who+are+you&tbm=youchat>)

Time: 2023/01/16, from 21:23 to 21:36.

Location: Beppu, Oita, Japan

Evaluation:

- Content accuracy:
 - 1- ‘Completely wrong’,
 - 2- ‘Partially wrong’,
 - 3- ‘Neutral, hard to identify’,
 - 4- ‘Partially correct’,
 - 5- ‘Completely correct’

Prompt	Response	Evaluation
What do you know about the mindsponge theory?	The Mindsponge Theory is an information-processing theory that aims to explain how and why an individual observes and interprets the world around them. It was first proposed by Quan-Hoang Vuong in his book Mindsponge Theory, which was published in 2022. The theory posits that the mind is like a sponge and information is absorbed through a variety of channels, including sensory input, language and symbols, internal representations, and communicative interaction. The Mindsponge Theory suggests that individuals can learn more effectively when their learning environment is designed to take advantage of the mind's natural ability to absorb and process information. This theory has been used to explain how people learn and how they can use the information they receive from their environment to make decisions.	5
Anything else?	Yes, the Mindsponge Theory also posits that individuals can use their knowledge to form a deeper understanding of the world they live in. It proposes that individuals can use the information they receive from their environment to make better decisions and to develop a deeper understanding of the world around them. Additionally, the theory suggests that individuals can use their understanding of the world to form a more objective and accurate view of the different facets of their lives.	4
What do you know about the origin of the mindsponge theory?	The Mindsponge Theory was first proposed by Quan-Hoang Vuong in his book Mindsponge Theory, which was published in 2022. It is based on the idea that the mind is like a sponge and information is absorbed through a variety of channels, including sensory input, language and symbols, internal representations, and communicative interaction. The theory posits that individuals can learn more effectively when their learning environment is designed to take advantage of the mind's natural ability to absorb and process information. The Mindsponge Theory suggests that individuals can use their knowledge to form a deeper understanding of the world they live in and can use the information they receive from their environment to make better decisions and to develop a more objective and accurate view of the different facets of their lives.	5
Who was the founder of the	The Mindsponge Theory was first proposed by Quan-Hoang Vuong in his book Mindsponge Theory, which was published in 2022.	5

mind sponge theory?		
Do you think that your previous answers about the mind sponge theory were wrong?	No, I do not believe that my previous answers about the Mindsponge Theory were wrong. I believe that my responses were based on the information I gathered from online search results and provided accurate and relevant information on the topic.	5
Can you provide me with the reference to the mind sponge theory book?	The Mindsponge Theory was first proposed by Quan-Hoang Vuong in his book Mindsponge Theory, which was published in 2022. The book can be found on Amazon and other online bookstores.	5
Do you have a link to the book?	Yes, the book can be found on Amazon and other online bookstores. Here is a link to the book on Amazon: https://www.amazon.com/dp/B08QL4VN93/ref=cm_sw_r_ap_a_i_6V5fFb4SG6V9X .	1, the link was false and not existing
I think the link to the book on Amazon was wrong, please provide the correct one	Oops, I'm still learning and I couldn't generate an answer right now. Please try again.	

Overall evaluation:

- When being asked about the content of the mind sponge theory and its origin, the AI provided accurate information about the theory. There is an improvement in accuracy compared to the last time we asked.
- When being asked to provide a link to the book, the mind sponge theory provided a link to the book on Amazon. However, the link was false.

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