

# AN INTELLECTUAL REVOLUTION

A new technology, perhaps the most impactful invention on human cognizance since the Gutenberg Printing Press, has arrived. Cited from a Wall Street Journal article written by 99-year-old Henry Kissinger; Kissinger writes, “The new technology is known as generative artificial intelligence; GPT stands for Generative Pre-Trained Transformer. ChatGPT, developed at the OpenAI research laboratory, is now able to converse with humans. As its capacities become broader, they will redefine human knowledge, accelerate changes in the fabric of our reality, and reorganize politics and society.”

ChatGPT is designed to assist with natural language processing tasks such as answering questions, generating text, and engaging in conversation. Here are several ways in which AI language models like ChatGPT could have a significant impact:

1. Improved communication: AI language models like ChatGPT can help people communicate more effectively across languages and cultures. This could have a profound impact on everything from international diplomacy to business communication.
2. Increased efficiency: AI language models can help automate many language processing tasks, freeing up time and resources for other important tasks.
3. Access to information: People can access information more easily and quickly, particularly those who may have limited access to traditional information sources.
4. Personalization: ChatGPT can be tailored to individual users, providing a more personalized experience and improving the quality of the information provided.

5. Innovation: AI language models like ChatGPT have the potential to inspire new forms of creative expression and innovation, particularly in fields like writing, journalism, and content creation.

Overall, AI language models like ChatGPT have the potential to significantly improve communication, increase efficiency, and broaden access to information in a wide range of industries and applications.

The previously mentioned article continues, “Generative artificial intelligence presents a philosophical and practical challenge on a scale not experienced since the beginning of the Enlightenment. The printing press enabled scholars to replicate each other’s findings quickly and share them. An unprecedented consolidation and spread of information generated the scientific method.” Artificial intelligence unwinds this traditional process for obtaining knowledge. A single query takes only seconds to be answered by ChatGPT, but the source and reasoning of the answer is unknown. How are humans expected to distinguish facts from misinformation?

Enlightenment science was trusted because each step of scientific discovery was repeated and verified. People with ill-intent are training models like ChatGPT to regurgitate false information by adding tainted “facts” to the internet, where ChatGPT gathers its information from. Occasionally, ChatGPT will make information up of its own accord (known as “Hallucination”) to provide a seemingly intelligent answer for reasons unknown to AI experts. Will developers design a way for humans to fact-check ChatGPT in order to verify that the response is correct even when we ourselves do not know the answer?

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A large language model like ChatGPT is equipped with nearly every fact and piece of literature to further increase human knowledge, yet human understanding will decline. Students are cheating on (and passing) exams using ChatGPT to find answers; evading the essential skill of “understanding”. Cheating on exams is wrong, but does it signal that education needs to adapt? Teachers utilizing generative AI could offer students individualized lessons that would make learning more efficient. New ideas and skills can be taught including responsible human-machine interactions. Educational curriculum designed to emphasize the idea that humans are creative, moral, and strategic beings will be paramount in order to preserve critical-thinking skills. Is it naive to assume that we may lose critical-thinking abilities as humans rely on computers more and our brains less? Or will the combination of man and machine have a better evolutionary outcome than machine alone?

Richard Bookstaber, an economics professor at MIT, wrote in his book “The End of Theory”: “No man is better than a machine, and no machine is better than a man with a machine.” This quote was written to highlight the fact that “robo-advisor” firms were adding human advisors to their team. The reasoning behind this change can be boiled down to two inherent facts; human judgement is clouded by fear and greed, and computers are inept to understand human thinking.

A large shortcoming for people is that we tend to be driven by emotion. These emotions disrupt our thought processes producing cognitive biases like anchoring, the tendency for investors to latch on to one specific price, metric, or fact regarding an investment. On the other hand, computers generally fail to comprehend the unique reality of the

human in front of them. The way we as people perceive the world and what we desire is different. Computers struggle to find the pattern of what makes us tick largely because there is no recognizable pattern. No matter the inadequacies of man or machine, when flawed human decisions and the calculator-like thinking of computers are combined, they become greater than the sum of their parts.

I asked ChatGPT to explain, “What is ChatGPT and how will it change the world?” The second paragraph of this letter containing the numbered list of ‘significant impacts’ is the generated response. While reading the paragraph, you may have been able to tell that it was written by a computer, or, perhaps, you might not have. Regardless, the response exhibited the fact that a computer was able to write a coherent paragraph explaining a complex topic. Generative artificial intelligence will be utilized in every imaginable industry in unimaginable ways. The economic benefits of artificial intelligence are only beginning to be realized by the masses. The boost to human productivity that may occur with the assistance of AI will be unparalleled.

As we stand here today, with artificial intelligence in its infancy, it is unclear who stands to gain the most: Tech companies, Healthcare corporations, or other? For now, ChatGPT and its competitors are a tool that companies can use to improve their products and services. Over the course of time, as AI matures, we will surely witness an intellectual revolution.

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