AI platforms such as ChatGPT will never be meaningful replacements for writers, educators or people in general.
Marco Bertorello

Recent advances in artificial intelligence have given rise to hyperbolic predictions of the decline of many human roles and professions.
In fact, purported AI platforms such as ChatGPT will never be meaningful replacements for writers, educators or people in general. To understand why this is true, it is critical to remind ourselves of what ChatGPT is and how its architecture and capabilities relate to the science of human learning and the arts of writing and teaching, respectively.

Despite popular suggestions to the contrary, ChatGPT simply cannot think or reason in any meaningful way. ChatGPT is the most recognized of a host of large language models that have paired a long-standing linguistic corpus technique — which trains computers to analyze data sets of language — with more modern technology and algorithms to produce the appearance of an intelligent response.

In truth, ChatGPT and its siblings use advanced pattern recognition and a bank of millions of textual examples to mimic communication. Yet they lack the ability to understand the meaning and context of the language they produce. In many ways then, ChatGPT is much closer to a highly sophisticated auto-complete feature on your phone than an actual intelligence, though with vastly greater scale and complexity.

Noam Chomsky, the eminent linguist and philosopher who revolutionized our understanding of language, once famously noted that the phrase “colorless green ideas sleep furiously,” while grammatically correct, is seemingly nonsensical.

Yet, this phrase touched upon two of the most important features of human language that ChatGPT lacks: First, language is fundamentally a process of free creation. Follow the rules of grammar, and you can express meaning related to anything from deductive arguments and poetry to nonsense. The ability to create truly unique and novel utterances — including new words, concepts and perspectives — is what imbues us with our very humanity and allows us to grow and learn beyond our own basic “programming” of instinct.

Second, this phrase also reminds us that a large amount of natural human language is symbolic and metaphorical. While poetry and literary metaphor are one part of this, everyday metaphor is a much larger phenomenon that allows us to communicate beyond the literal. Telling someone that you are “trying to keep your head above water” at work is nonsensical when interpreted literally, yet extremely meaningful to a human mind that can understand the shared conceptual relationships between overwhelming workload and the struggle to not drown.

While ChatGPT can respond to creative inquiries and even some metaphorical prompts with seemingly meaningful replies, it is important to remember that it is simply reconstituting existing language without any thought, free creation or metaphorical meaning of its own. This is the first and most fundamental reason that ChatGPT cannot ever truly replace professional writers — whether they be journalists, novelists or academics.
When audio recording technology became commonplace in newsgathering during the 20th century, some suggested that it would replace many journalists who would otherwise attend news conferences and other newsworthy events. What this suggestion failed to recognize is that journalists don’t simply record what someone says; they interpret it and, most importantly, ask questions to understand or even challenge what they are hearing. Today, audio recording technology is an important tool for journalists but one wielded in service to its human users.

Similarly, the science of human learning has shown us that students learn not only through their abilities of reasoning, interpretation and creative expression — which ChatGPT lacks — but also with the help of teachers who engage them in a two-way dialogue accompanied by feedback that is adjusted to their understanding and overall needs.

Notably, ChatGPT cannot facilitate higher-order conceptual learning. ChatGPT cannot actually ask questions of its own at all. It simply does not have the agency or capability to do anything but provide derivative responses in the face of human-initiated prompts.

For these reasons and so many more, ChatGPT does not represent any meaningful replacement for writers, educators or human professionals in general. And yet, ChatGPT represents an undeniably powerful and transformative tool for writers and educators, in particular, to leverage in service to their professions.

As large language AI models such as ChatGPT continue to evolve, it is critical that people, and our humanity, remain at the center of these technologies to ensure that they are employed in service to human growth, development and understanding.

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