



Escape climate apathy by harnessing the power of generative AI

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“Throw away anything that sounds too complicated. Only keep what is simple to grasp...If the information appears fuzzy and causes the brain to implode after two sentences, toss it away and stop listening. Doing so will make the news as orderly and simple to understand as the truth.” - In “GHG emissions,” *The Kingfisher Story Collection*, (Vuong 2022a).

This essay calls stakeholders’ attention toward the alignment of ethics of three spheres that will determine the continued existence and the thriving of mankind: *human to human, human to nature, and human to machines*. Since these AI systems will form inevitable parts of our cognitive and affective scaffoldings, we believe that our powerful AI systems can and should be genuine partners in our fights to avert disastrous consequences of global warming. Thus, this essay articulates three conditions to harness the power of generative AI chatbots so that we can acculturate away from climate apathy.

What if the power of our most advanced AI systems were in the hands of climate change denialists? The mainstream media reports daily on the threats arising from the collapse of the ecosystem due to global warming. Yet, climate change is exceedingly politicized and no one seems to care enough (Cripps 2023). And while 98% of scientists have reached a consensus on the reality of climate change, a small, vocal group of climate change denialists can evidently divert the discourse away from meaningful actions and policies. Moral psychologists have identified tragedy of the commons (i.e.,

the free rider problem) and the tragedy of commonsense morality (i.e., the moral tribe problem) being the root cause of our apathy toward long-term problems, such as preventing climate disasters.

And this all happens, paradoxically, as we are now in the presence of revolutionary AI systems that can generate and summarize from the wealth of research on climate change issues almost instantly. Why can our most potent AI systems, namely GPT-4, Google Bard, Mid-Journey, recommender algorithms, etc., give us more urgency and knowledge to find solutions for climate change issues? In recent years, as we conduct research on cultural aspects of environmental practices, we have found ourselves having day-to-day interactions with generative AI chatbots, asking non-obvious questions, including:

1. The role of wetlands in carbon sequestration.
2. Whether soil carbon farming is economically beneficial for farmers.
3. What serious issues exist with palm oil plantations.
4. Why kingfishers can be considered ecological indicators.

The chatbot provided answers that were well-organized, concise, and overall trustworthy pointers for expanding and deepening our understanding of these environmental topics. These interactions prompt us to generalize four conditions for the AI to provide ‘*decent, reliable, trustworthy*’ information:

First, each user needs to adopt the perspective that AI agents in our everyday activities are cognitive and affective artifacts, and they are already inevitable parts of our cognitive and affective scaffoldings (Piredda 2020). This is because these AI systems are embedded within a network of embodied (i.e., robots, AI-powered cameras, smartphones, etc.) and disembodied objects (i.e., spam filters, content recommender algorithms, chatbots, etc.) that assist us in

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thinking, problem-solving, self-understanding, and understanding the world around us. This leads to the second point.

Second, is the *collaborative, learning spirit*. Acknowledging the pervasive and important role AI will play in shaping our personal and collective epistemology, using these AI systems as partners to grow together must become the new common-sense ethics. Users must be in a ‘learning mode’ rather than an ‘exploiting mode,’ when interacting with AI. For instance, users could just attempt to expose AI chatbots’ shortcomings for amusement and dismiss their usefulness without much effort and thought. We should ensure they have the best training data and nuanced viewpoints, especially regarding environmental issues.

Third, is *preparedness* regarding both knowledge and frame of mind. Users must thoroughly do their homework to build a decent level understanding of the topics of interest. Moreover, there must be curiosity, patience, a respectful approach, and language ability (to choose the right words for the prompts).

Fourth, is the human’s *ability to process information and deliberate*. Fruitful interactions between humans and AI depend a lot of on the self-assessment of the level of information they can handle to determine the next questions they can ask, and whether the information in the AI’s answers can be considered pointers to further knowledge, and so on.

With these four conditions, we aim to demonstrate that the *set and setting* of generative AI users are fundamental in shaping the course of human-AI interactions. Values such as non-exploitative, collaborative spirit, open-mindedness, preparedness, patience, deliberation, and others are essential in allowing the humans to learn and thrive in the presence of powerful AI systems. Importantly, we want to emphasize that these interactions are not merely acts of seeking and consuming information but also involve acculturation (Vuong 2022b). And *acculturation* is the operative word.

In an ideal scenario, AI systems can help us scaffold our cognitive and affective environments, either by directly providing information based on our prompts or by nudging us via recommending contents. Thus, enabling us to establish new values and identities that focus on ecosystem protection. We can acculturate toward a better understanding about the severity of the climate situation and start to adopt values and practices to protect the environment. Success in this regard intersects with *personal ethics, business ethics, environmental ethics, and information ethics* because we are in the presence of ever-powerful AI.

Ultimately, the vision is that the ecology of AI agents becomes a reliable source of education and recommendation for actions and policies. They can alert us to the disastrous consequences of our seemingly mundane business-as-usual activities related to economic consumption and production that eventually contribute to rising global temperatures. They can also provide most up-to-date data and best practices (for personal uses and business) that mitigate our harmful impacts on the climate and enhance environmental resilience. To achieve this, the role of AI engineers, businesses employing AI systems, and the scientific community is paramount.

Finally, to escape climate apathy collectively, we need our best AI systems in this fight. And we believe the power our most AI systems can and should be harnessed to support a symbiotic coexistence of the three interconnected spheres: the ecosystem, human society, and the AI-powered infosphere.

Curmudgeon Corner Curmudgeon Corner is a short opinionated column on trends in technology, arts, science and society, commenting on issues of concern to the research community and wider society. Whilst the drive for super-human intelligence promotes potential benefits to wider society, it also raises deep concerns of existential risk, thereby highlighting the need for an ongoing conversation between technology and society. At the core of Curmudgeon concern is the question: What is it to be human in the age of the AI machine? -Editor.

Data availability There is no data associated with this paper.

Declarations

Conflict of interest The authors declare no conflict of interest.

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