

## AN OP-ED FROM THE FUTURE

You might risk losing yourself.

**By Susan Schneider**

Dr. Schneider is the author of “Artificial You: A.I. and the Future of Your Mind.”

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*Editors’ note: This is the third installment in a new series, “Op-Eds From the Future,” in which science fiction authors, futurists, philosophers and scientists write Op-Eds that they imagine we might read 10, 20 or even 100 years from now. The challenges they predict are imaginary — for now — but their arguments illuminate the urgent questions of today and prepare us for tomorrow. The opinion piece below is a work of fiction.*

As artificial intelligence creates large-scale unemployment, some professionals are attempting to maintain intellectual parity by adding microchips to their brains. Even aside from career worries, it’s not difficult to understand the appeal of merging with A.I. After all, if enhancement leads to superintelligence and extreme longevity, isn’t it better than the alternative — the inevitable degeneration of the brain and body?

At the Center for Mind Design in Manhattan, customers will soon be able to choose from a variety of brain enhancements: Human Calculator promises to give you savant-level mathematical abilities; Zen Garden can make you calmer and more efficient. It is also rumored that if clinical trials go as planned, customers will soon be able to purchase an enhancement bundle called Merge — a series of enhancements allowing customers to gradually augment and transfer all of their mental functions to the cloud over a period of five years.

Unfortunately, these brain chips may fail to do their job for two philosophical reasons. The first involves the nature of consciousness. Notice that as you read this, it feels like something to *be* you — you are having conscious experience. You are feeling bodily sensations, hearing background noise, seeing the words on the page. Without consciousness, experience itself simply wouldn’t exist.

Unfortunately, there’s no clear answer about what your essential properties might be. Many philosophers sympathize with the “psychological continuity view,” which says that our memories and personality dispositions make us who we are. But this means that if we

change our memories or personality in radical ways, the continuity could be broken. Another leading view is that your brain is essential to you, even if there are radical breaks in continuity. But on this view, enhancements like Merge are unsafe, because you are replacing parts of your brain with A.I. components.

Advocates of a mind-machine merger tend to reject the view that the mind is the brain, however. They believe that the mind is like a software program: Just as you can upload and download a computer file, your mind can add new lines of code and even be uploaded onto the cloud. According to this view, the underlying substrate that runs your “self program” doesn’t really matter — it could be a biological brain or a silicon computer.

However, this view doesn’t hold up under scrutiny. A program is a list of instructions in a programming language that tell the computer what tasks to do, and a line of code is like a mathematical equation. It is highly abstract, in contrast with the concrete physical world. Equations and programs are what philosophers call “abstract entities” — things not situated in space or time. But minds and selves are spatial beings and causal agents; our minds have thoughts that cause us to act in the concrete world. And moments pass for us — we are temporal beings.

Perhaps advocates of the software view really mean that the mind or self is just the thing running the program — but this just takes us right back to where we started: What is this thing, this self? Why be confident that it survives enhancements like Merge, or even less radical enhancements, like Zen Garden and Human Calculator? Both of these enhancements still involve major augmentations of certain cognitive capacities. Such changes may, for all we know, alter one’s personality and brain function in significant ways.

This leads me to suspect there may be a second kind of design ceiling on radical brain enhancement. The first design ceiling arises if microchips fail to underlie conscious experience — let’s call this the “consciousness ceiling.” This second ceiling, in contrast, involves the survival of the self. This “self ceiling” is a point beyond which the person who attempts to enhance is no longer the same individual as before, for the procedure causes that individual who sought enhancement to cease to exist. Because the nature of the self is so controversial, we don’t know if there’s a self ceiling. Nor do we know how high, or low, a self ceiling would be situated.

These potential ceilings suggest that we should approach the idea of merging with A.I. with a good deal of humility. Technological prowess is not enough. To flourish, we must appreciate the philosophical issues lying beneath the algorithms.

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