The Ethics of Using Brain Implants to Upgrade Yourself

Neurotechnology is one of the hottest areas of engineering, and the technological achievements sound miraculous: Paralyzed people have controlled robotic limbs and computer cursors with their brains, while blind people are receiving eye implants that send signals to their brains’ visual centers. Researchers are figuring out how to make better implantable devices and scalp electrodes to record brain signals or to send electricity into the brain to change the way it functions.

While many of these systems are intended to help people with serious disabilities or illnesses, there’s growing interest in using... Read More
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Dr. Jennifer Hasler,
Georgia Institute of Technology, Integrated Computational Electronics Laboratory (ICE)

Our research focuses on topics in physical computing — computing using physical quantities with the possibility of one continuous variable. This includes analog/digital computation, neuromorphic computing, and other approaches (e.g., quantum) which demonstrate 1000x factor improvement in computational energy efficiency.

One of the most exciting efforts I’m working on is on building a unified framework for physical computing showing the wider computational capabilities of these techniques compared with digital computation.

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