

# NEURAL IMPLANTS WEEKLY ETHICACY

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## PRIMARY SOURCES:

- HOW NEURAL IMPLANTS WORK ([LINK](#))
- RESEARCH GROUPS
  - Braingate: <https://www.braingate.org/>
  - Elon Musk's Neuralink <https://neuralink.com/>
  - Bryan Johnson's Kernel <https://www.kernel.com/>
- BRAIN IMPLANTS & IDENTITY:  
<https://www.newyorker.com/magazine/2021/04/26/do-brain-implants-change-your-identity>

## WHAT IS IT?

- With the rapid development of computers, our interfacing with them has always been limited by how our eyes and ears have been able to process screens and speakers. New technology has been interfacing directly with the brain with implantable chips that read brain activity. [Braingate](#) is a device developed by a research team, including Brown, Stanford, and UC Davis, which has been leading development of Brain-computer interface technologies. In 2004, Cyberkinetics received the first exemption from the FDA to perform this type of research.
- No commercial applications yet, nor research for "able-bodied" yet

## ARGUMENTS FOR:

- RESTORE MOVEMENT for those with paralysis with prosthetics or wheel chairs
- ALLOW COMMUNICATION for those who cannot speak or use computers by traditional means
- OTHER SCIENTIFIC BENEFITS ([link](#))
  - Bladder control
  - Block tremors for those with Parkinson's disease
- MORE EFFECTIVE THAN EEG (Electroencephalography)

## ARGUMENTS AGAINST:

- DANGEROUS: highly invasive but Not a lot of data about long-term side-effects
- HARMFUL TO ANIMALS - Neuralink tests on monkeys, and one has died during research
- COSTLY TO REMOVE - Donations of devices & implants, but not maintenance or removal ([link](#))
- WIRES!
- TRANSFER RATE LIMITATIONS
- BRAIN PRIVACY - HACKING BRAIN...AND BODY - *The first the implications to solidify psychological findings seems great but thinking further, it might just gather "reliable data" to push agendas, oppress certain groups, amplify inequities*