

Viewpoint: ‘Advances in brain-computer interfaces and prosthetics could improve quality of life for millions, but they carry risks that touch upon eugenics’

During 2023, the US Food and Drug Administration (FDA) is expected to approve and monitor small-scale clinical trials of at least three rival brain-computer interface (BCI) systems.

These systems seek to read signals from neurons that can be used to provide subtle control of and ultimately feedback from artificial limbs, to stimulate nerve passages to restore movement after spinal damage, and, where neither of those options is viable, to give patients control of digital tools.

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BCIs support a persuasive vision: restoring human function and dignity to millions who suffer and, in the case of veterans, have made huge sacrifices. But it is becoming a controversial one, too.

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Could BCIs be perverted to foster eugenics? Could they turn digital divides into chasms by creating a species of ‘post-human’ overlord? Could they combine with AI in unanticipated and dangerous ways?

Arguments and ethical debates previously associated with biotechnology, particularly around Crispr gene editing, are spreading into electronics.

The main brake on abuse right now comes from regulatory agencies like the FDA constraining today’s wave of innovation to justifiable medical applications.

[\*\*This is an excerpt. Read the full article here\*\*](#)