

AI and Neurotechnology at the Crossroads

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Abstract: This article reviews existing research on brain-machine interfaces (BMIs) and their uses before discussing prospective BMI applications in the future. At the moment, BMIs are mostly used for therapeutic purposes, such as enabling brain-based computer control for spinal cord damage patients. BMIs can, however, also enhance learning, identify emotions, and exert basic behavioral control. They may present a variety of potent future possibilities, including the ability to manipulate people and combine human intellect with artificial intelligence (AI), which may be required to counteract the existential danger posed by artificial general intelligence (AGI). They would probably simultaneously have detrimental effects on people, including loss of identity, skill deterioration, and privacy concerns, resulting in psychological suffering and disorientation. This study demonstrates how BMI research could result in significant changes with no guarantee of a positive outcome, highlighting the urgent need to address these pressing problems.

Keywords: Neuralink; Brain-Machine Interface; BMI; BCI; CBI; BBI; Transhumanism; Ethical Issues).

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