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### **Enhanced Brains**

Sir, Katie Prescott is right that a “marriage between artificial intelligence and the traditional field of neuroscience” will help to unlock the potential of brain-computer interface (BCI) technology ([“Brain technology has sparked a wave of innovation in Britain”](#), Jan 31). For this marriage to work it must address the ethical, moral and societal implications of these technologies. This will require a transdisciplinary coalition of neuroscientists, ethicists, big-tech engineers, philosophers and policymakers. BCI technology could help to plug intractable neurological deficits but the danger lies in their potential use in neuro-enhancement and neuro-modulation. This raises serious questions about free will, autonomy, authenticity and fairness. Other dangers include long-term psychiatric and epigenetic consequences. “Neuro rights” are also a concern: “brain data” can be extracted by such devices and misused by corporations. Stringent transnational regulatory frameworks are urgently needed to allow essential medical innovations while preserving safety and individual rights.

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