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Beyond Technology: Public Perceptions about Brain-computer Interfaces and their Acceptance

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Abstract

Brain-computer integration holds the potential to improve lives and treat human disabilities, but it needs to be accepted worldwide. We must comprehend the various viewpoints held by users. This study aims to investigate stakeholders' attitudes and concerns about BCI through various perspectives. The aim is to illustrate the transformative potential of BCIs, helping individuals with disabilities and their caregivers understand how this technology could positively impact their independence, quality of life, and social interactions. While research and healthcare have the capacity to enhance medical knowledge and human intelligence, they also entail risks if not properly managed. Therefore, before implementing BCIs, policymakers must ensure the protection of user privacy.

Furthermore, policymakers should actively seek a variety of perspectives on data security, privacy, and BCI utilization through public forums and surveys. The objective is to reach a compromise that ensures BCIs are implemented equitably and safely. The ultimate goal is to create a future where BCIs benefit everyone, fostering significant technological advancements while also safeguarding individual rights and privacy.

Keywords: ***BCI, Brain Perception, Healthcare, Medical Research, Transparent Communication***