Implant Neurotechnologies for Memory and Cognition: A Literary Approach to Memory Ethics and Medicine

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Introduction

- Intersection of nanotechnology, biotechnology, information technology, and cognitive science (NBIC) should be discussed in relation to the following six themes: overall potential, human impacts, cognitive science, ethics, politics, and economy.
- The challenges of NBIC — including the implications for human cognition and behavior — are morally significant since many of the medical benefits of neurotechnologies are contingent on how they will be developed and used.
- The outcomes of NBIC — including the applications of neurotechnologies — depend on the intentions of society, governments, manufacturers, and providers.
- Research and patient care today, and accordingly responsibilities for neurotechnologies, medical providers, patients, researchers and scholars, and the public on the reconciliation of the ethics of neurotechnologies impacting memory and cognition.

Implant Neurotechnologies and Memory Ethics

- The specific effects and permanence of memory systems with external memory technologies must be assessed.
- Is an INMC intervention “worth it” for the patient? All potential effects of neurotechnologies to patients should be considered, and conveyed to involved parties (patients, caregivers, etc.) prior to administration or implantation of the intervention in an objective, unbiased manner, maintaining the integrity of informed consent.

Neurotechnologies and Patient Care

- Digital addictive patterns (what we term as “digital addiction”) are particularly closely linked to a unique range of health problems and phenomena—including but not limited to the COVID-19 pandemic and ecular diagnoses such as prematurity and computer vision syndrome—potentially warranting standardization on its own medical guidelines.

Responsibilities of Stakeholders

- Providers must be proactive in utilizing alternative means of communication (e.g., secure medical messaging) with patients and to promote informed consent.
- Patients must know and fulfill their responsibilities in both research studies and patient care today, and accordingly responsibilities for neurotechnologies.

Conclusion

In analyzing a prior thought experiment, we impart a novel and consolidated account of the metaphysical and ethical implications of neurotechnologies impacting memory and cognition.

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References