Neuroethics: Addressing the Ethical, Legal, Social, and Cultural Implications of Neurotechnology

Legal System Preamble

Since ancient times, various tools have been used across different cultures in order to mete out justice—starting with infusions, poisons, and mystical foods, such as the interrogations using "truth drugs" and the trance state in oracles from Delphi to Tibet and Shamanic cultures. Efforts to understand criminal behavior, assess states of mind, and apply interventions to modify behavior are integral to the workings of the legal system. Technologies to assess, modify, and intervene in the brain have therefore long been of interest for adoption and application in the legal system.

Today, the use of behavioral data and brain imaging data in the courts is becoming more common. Technologies that ascertain neural information are being applied to interrogation, alcohol testing for drivers, behavioral information of workers, and other areas of the legal system. However, frameworks for ethically implementing such tools are still evolving.

The legal system encompasses a number of societal institutions that function to administer and enforce laws and regulations, govern social relations, and address anti-social behaviors. Criminal justice, civil courts, and administrative courts, for example, are components of the broader legal system. There are opportunities to improve the workings of these systems through the use of neurotechnologies, such as providing more accurate tools for assessing and monitoring behavior. There are also risks inherent in reliance upon technologies within the legal system, including the potential for discriminatory use, privacy issues, and inappropriate implementation.

In this document, we will discuss neurotechnologies that have the potential to be applied to a range of uses within the legal system. The legal system takes different forms globally and we aim to explore the ethical, legal, social, and cultural implications (ELSCI) connected to the development and implementation of neurotechnologies in these different systems.