23103 The professor trying to protect our private thoughts from technology

By Edward Helmore, *The Guardian*, 26 March 2023

Private thoughts may not be private for much longer, heralding a nightmarish world where political views, thoughts, stray obsessions and feelings could be interrogated and punished all thanks to advances in neurotechnology. Or at least that is what one of the world's leading legal ethicists of neuroscience believes.

In a new book, *The Battle for Your Brain*, Duke University bioscience professor Nita Farahany argues that such intrusions into the human mind by technology are so close that a public discussion is long overdue and lawmakers should immediately establish brain protections as it would for any other area of personal liberty.

Advances in hacking and tracking thoughts, with Orwellian fears of mind control running just below the surface, is the subject of Farahany's scholarship alongside urgent calls for legislative guarantees to thought privacy, including freedoms from "cognitive fingerprinting", that lie within an area of ethics broadly termed "cognitive liberty".

Certainly the field is advancing rapidly. The recent launch of ChatGPT and other AI tech innovations showed that some aspects of simulation of thought, termed machine learning, are already here. It's been widely noted also that Elon Musk's Neuralink is working on a brain interface that can read thoughts directly. Technology that allows people experiencing paralysis to control an artificial limb or write text on a screen just by thinking it are in the works.

But aside from the many benefits, there are clear threats around political indoctrination and interference, workplace or police surveillance, brain fingerprinting, the right to have thoughts, good or bad, the implications for the role of "intent" in the justice system, and so on.

Farahany believes that advances in neurotechnology mean that intrusions through the door of brain privacy, whether by way of military programs or by way of well-funded research labs at big tech companies, are at hand via brain-to-computer innovations like wearable tech.

"All of the major tech companies have massive investments in multifunctional devices that have brain sensors in them," Farahany said. "Neural sensors will become part of our everyday technology and a part of how we interact with that technology."

The brain, Farahany warns, is the one space we still have for reprieve and privacy, and where people can cultivate a true sense of self and where they can keep how they're feeling and their reactions to themselves. "In the very near future that won't be possible," she said.

(395 words)