Radical advances in mind reading technology: How it's possible to know what's going on in someone else's mind

As exciting as the idea of extracting a movie from someone's brain activity may be, it is a highly limited form of "mind reading." To really experience the world through your eyes, scientists would have to be able to infer not just what film you are watching but also what you think about it, how it makes you feel, and what it reminds you of. These interior thoughts and feelings are far more difficult to access.

Follow the latest news and policy debates on sustainable agriculture, biomedicine, and other 'disruptive' innovations. Subscribe to our newsletter. SIGN UP

When studying inner experience, all scientists have to go on is what people say is going on inside their head, and that can be reliable. "It's not like it's directly measuring as a ground truth what people experienced," says Raphaël Millière, a lecturer in philosophy at Macquarie University in Australia.

Tying brain activity to subjective experience requires facing up to the slipperiness and inexactitude of language, particularly when deployed to capture the richness of one's inner life. In order to meet that demanding brief, scientists like Millière are marrying contemporary artificial intelligence with centuries-old techniques, from philosophical interview strategies to ancient meditation practices. Bit by bit, they are starting to suss out some of the brain regions and networks that give rise to specific dimensions of human experience.

"That's a problem we can make, and have made, some progress on," Millière says.

This is an excerpt. Read the full article here