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Lighting Up the Brain to Study Social Interactions

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In recent years there has been a dramatic shift in the way we interact with other people, largely exacerbated by the COVID-19 pandemic. Often, this resulted in our interactions moving to the virtual world. But how does speaking to someone online differ from our normal face-to-face conversations?

I have been tackling this question using optical neuroimaging, an increasingly popular way of studying naturalistic human brain function. Light is shone into the brain to measure blood flow, giving an indication of brain activity. This technique allows for the simultaneous imaging of two people's brains as they interact. This means we can look at how brains synchronize, often characterized by similar patterns of activity. Using this set-up, I look at how brains adapt to online social interactions, such as during Zoom calls. Conducting studies like this is a step towards making neuroscience research more naturalistic and less constrained to laboratory environments.