

New study reveals brain network for sharing self-related information on Facebook

March 8 2016



Credit: Wikimedia Commons

A network of brain regions involved in self-disclosure on Facebook has been determined, according to a new study published in the open-access journal *Scientific Reports*.

In the first study to examine the intrinsic functional connectivity of the brain in relation to [social media](#) use, Dar Meshi and colleagues observed connectivity between regions of the brain previously established to play a role in self-cognition, in 35 participants.

Researchers focused on the medial prefrontal cortex and the precuneus, two cortical midline regions that are recruited when thinking about oneself.

"Human beings like to share information about themselves. In today's world, one way we're able to share self-related information is by using social media platforms like Facebook," says Meshi, lead author of the paper and a postdoctoral researcher at the Freie Universität, Berlin, Germany.

Facebook is the world's largest social media channel with 1.5 billion monthly active users. It was used in the study because people post information about their thoughts, feelings and opinions, as well as pictures and videos of themselves.

All subjects completed a "Self-Related Sharing Scale" to determine how frequently each subject posted pictures of themselves, updated their profile information, and updated their status. The participants were selected to vary widely in their Self-Related Sharing Scale scores.

Researchers recorded functional neuroimaging (fMRI) data while subjects were allowed to let their mind wander; subjects did not perform an explicit task. Researchers then analyzed the connectivity of each participant's brain to determine a relationship between brain connectivity and Self-Related Sharing Scale score across participants.

Results showed that participants who share more about themselves on Facebook had greater connectivity of both the [medial prefrontal cortex](#)

and precuneus, to the [dorsolateral prefrontal cortex](#). There was also greater connectivity between the precuneus and the lateral orbitofrontal cortex.

"Our study reveals a network of [brain](#) regions involved in the sharing of self-related information on social media," says Meshi. "These findings extend our present knowledge of [functional brain connectivity](#), specifically linking [brain regions](#) previously established to function in self-referential cognition to regions indicated in the cognitive process of self-disclosure."

The authors point out that the implications of their research are broad and lay the foundation for future scientific investigation into self-disclosure.

More information: Dar Meshi et al. Sharing self-related information is associated with intrinsic functional connectivity of cortical midline brain regions, *Scientific Reports* (2016). [DOI: 10.1038/srep22491](https://doi.org/10.1038/srep22491)

Provided by Freie Universitaet Berlin

Citation: New study reveals brain network for sharing self-related information on Facebook (2016, March 8) retrieved 19 November 2023 from <https://medicalxpress.com/news/2016-03-reveals-brain-network-self-related-facebook.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--