

## A new Brain mapping technique will tell who you are thinking about

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### Digitally reconstruct images seen by test subjects based on electroencephalography (EEG) data



Scientists have developed a new mind-reading technology that analyses brain waves to recreate the facial image a user is thinking about.

The technique, developed by Dan Nemrodov, a postdoctoral fellow at the University of Toronto Scarborough, is able to digitally reconstruct images seen by test subjects based on electroencephalography (EEG) data. “When we see something, our brain creates a mental percept, which is essentially a mental impression of that thing. We were able to capture this percept using EEG to get a direct illustration of what’s happening in the brain during this process,” said Mr. Nemrodov.

For the study, published in the journal *eNeuro*, test subjects hooked up to EEG equipment were shown images of faces.

Their brain activity was recorded and then used to digitally recreate the image in the subject's mind using a technique based on machine learning algorithms.

The study provides validation that EEG has potential for this type of image reconstruction, something many researchers doubted was possible given its apparent limitations.