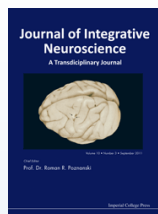


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## Decoding of visual information from human brain activity: A review of fMRI and EEG studies

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Brain is the command center for the body and contains a lot of information which can be extracted by using different non-invasive techniques. Electroencephalography (EEG), Magnetoencephalography (MEG) and functional magnetic resonance imaging (fMRI) are the most common neuroimaging techniques to elicit brain behavior. By using these techniques different activity patterns can be measured within the brain to decode the content of mental processes especially the visual and auditory content. This paper discusses the models and imaging techniques used in visual decoding to investigate the different conditions of brain along with recent advancements in brain decoding.

This paper concludes that it's not possible to extract all the information from the brain, however careful experimentation, interpretation and powerful statistical tools can be used with the neuroimaging techniques for better results.

**Keywords:** Brain reading; human visual cortex; fMRI; EEG; decoding visual patterns