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## **BCI-based Evaluation in Information Visualization**

Evaluations have been the key factor for validating different visualization and interaction approaches. But while experts agree on their importance, the evaluation techniques currently used in Information Visualization focus mostly on objective measurements like performance and efficiency, and only rarely investigate subjective factors (states of mind and emotions that the users experience).

As the ideal evaluation should be non-intrusive and executed in real-time, many researchers turn to novel brain-computer interfaces (BCI) for directly investigating the users' affective and mental states. While current portable BCI systems are employed overwhelmingly in control tasks (e.g. moving a robotic arm), many of them have proven useful in supporting subjectivity measurements and, thus, evaluations in real-time.

But what would an ideal BCI system detect and how would it process it in order to support the evaluation of Information Visualization approaches? Could a framework specifically designed for InfoVis evaluation with BCI systems enable researchers to obtain the answers they seek? These are a couple of specific topics that need to be addressed when looking at the potential of BCI systems as an alternative evaluation method for Information Visualization methods and systems.

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