NEUROCINEMATICS:
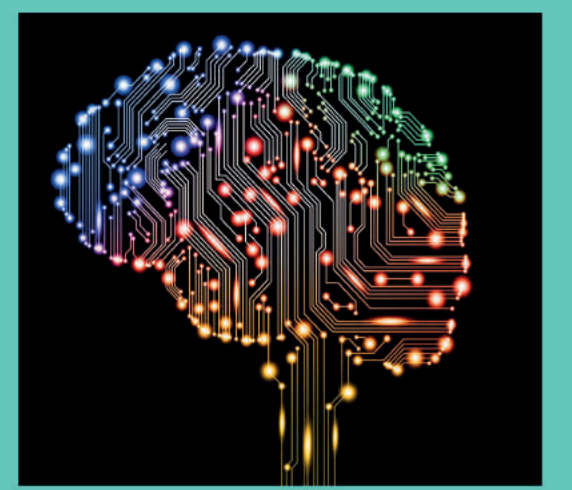# The Intelligent Review System

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Motivation

- Each producer invests crores of rupees in each film , which may lead to huge losses and defamation
- We chose Cognitive Computing as the solution since it can offer a unbiased review review for a film with high flexibility

Literature Review

- Our solution is based on the paper titled "The Neuroscience of Film" by Uri Hasson, Ohad Landesman, B. Knappmeyer, Ignacio Vallines, Nava bin , and David. J. Heeger
- We also took into consideration, the fmri review of trailer of the movie -"Avatar" by J. Cameroon done by Mind Sign

Materials and Methods

- We use EEG headbands to record the live responses given by each viewer

Fig 1.1-
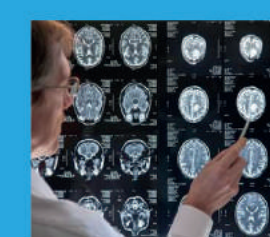14 electrode , Emotiv EPOC used for user analysis.

Planning → Test

Report ← Analysis

Protocol / Expected Results

- For the first phase , we consider 5 people each for 3 different age groups (20 - 30, 31 - 40, 41- 50) and subject them to a shortfilm spanning 20 mins in three different genre (Romance, Horror and action)
- We then map the obtained results to a pre-determined scale which is fixed as the reference
- Average score of the obtained readings from different persons is calculated and produced as the final result of phase 1
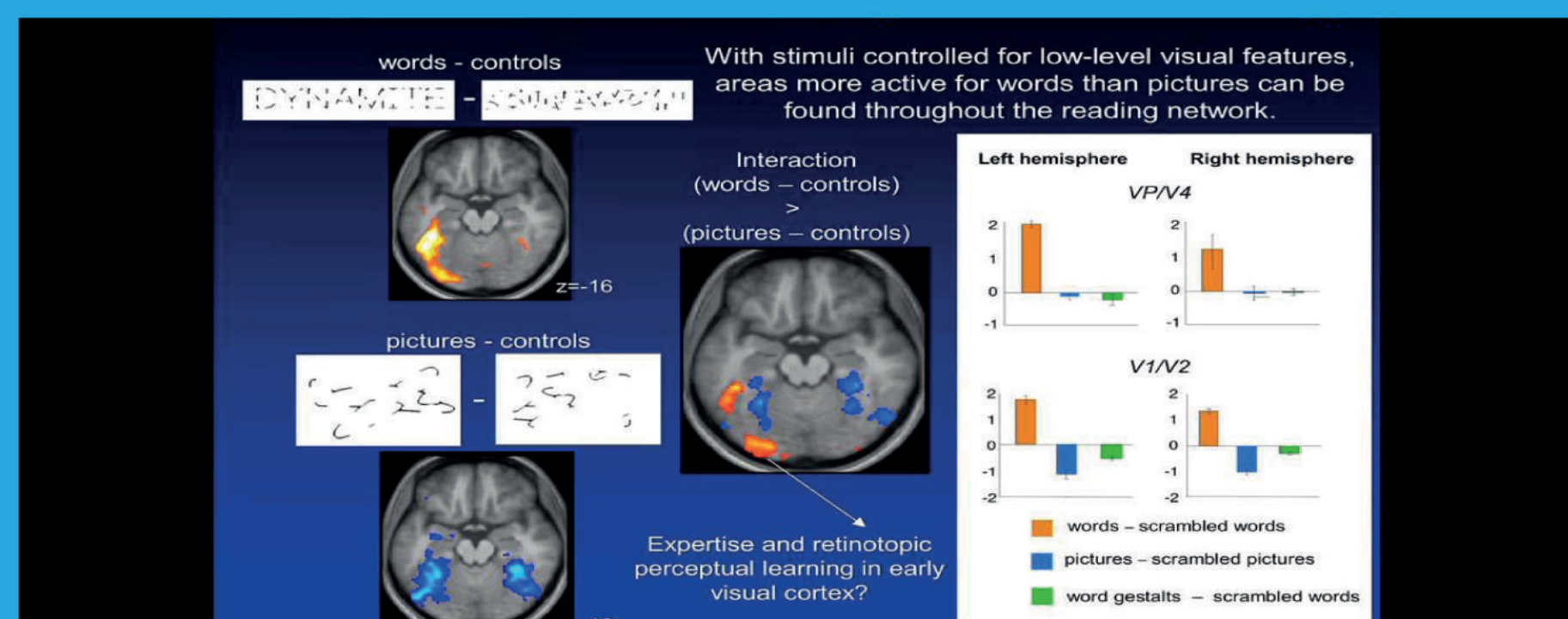

Fig 1. 2 - Expected frequency map for a particular period of time

Challenges Ahead

- signal to Noise Ratio can be found out only when the actual work is carried on
- Mental state of the person under study
- This research inevitably raises ethical challenges and a public debate on rights and restrictions is to be expected.

Conclusion and Outlook

- What we do here cannot exactly predict , if the movie is going to be a success or failure
- This method acts as a extra layer of fail-proof coating
- We propose EEG analysis can contribute to the cognitive movement in film theory, analogous to contributions that neuroscience has made to cognitive and social psychology
- The complete review of each film is beyond the domain of this project, and it is left to the critics and the viewers.

Sources

- Neurocinematics: The Neuroscience of Film Uri Hasson, Ohad Landesman, Barbara Knappmeyer, Ignacio Vallines, Nava Rubin, and David J.Heeger
- American Journal of EEG Technology ,Volume 9, Issue 1
- Nonlinear Responses in fMRI: The Balloon Model, Volterra Kernels, and Other Hemodynamics,K.J. Friston, A. Mechelli, R.Turner, C.J. Price
- Neurocinematic Approaches to Sonics, Ethics, and Affect Jane Megan Stadler

Acknowledgement

About the Authors

G. krishna and G. Gautham Krishna pursue their B.Tech in SSN College Of Engineering , guided by Dr. N. Bhalaji , they currently pursue their research in Neurocinematics . " To venture into the realm of computer and cognition is to pursue a path of boundless discovery and invention ; we are in awe of how much life has been made easier by advances in cognitive computing , paving the way for new and better use of technology... " is the reason they say , when questioned as to why they pursue their research in this field.