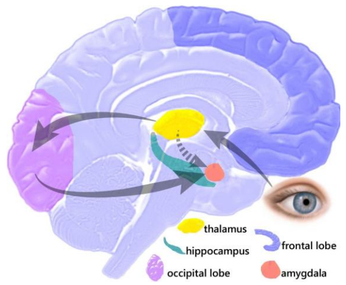
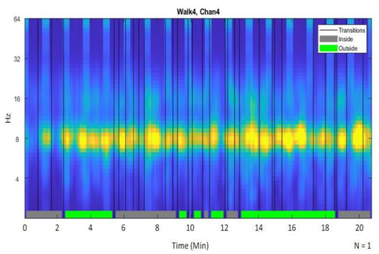
Detecting Shifts in the Human Experience Using Multi-Modal Models

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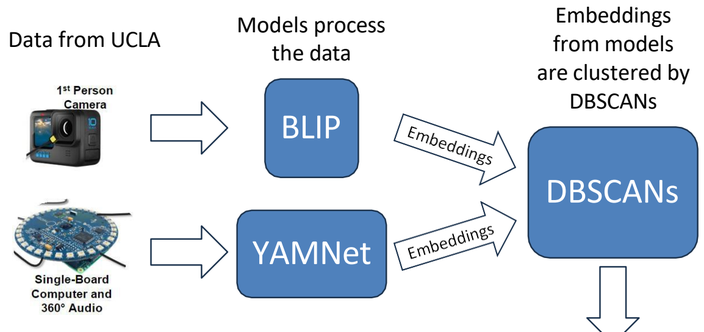
MOTIVATION

- The human experience is shaped by our sensory perceptions, particularly visual and auditory stimuli
- These stimuli define our immediate environment and are crucial for memory formation
- The amygdala signals when to remember events
- Understanding human experience is essential for insights into memory retention
- **Goal: Employ a multimodal model that can highlight substantial shifts in the human experience from data supplied by numerous sensors**





METHODS

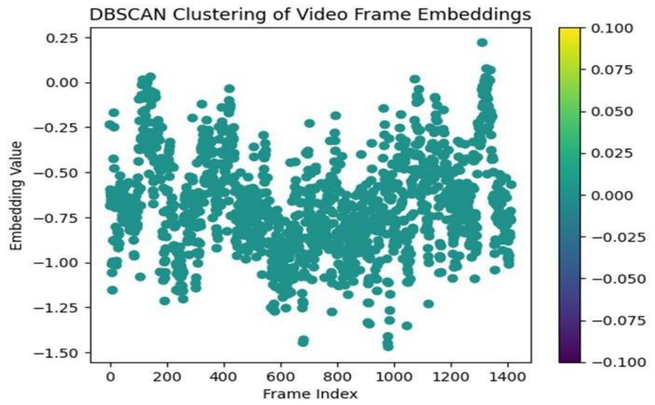


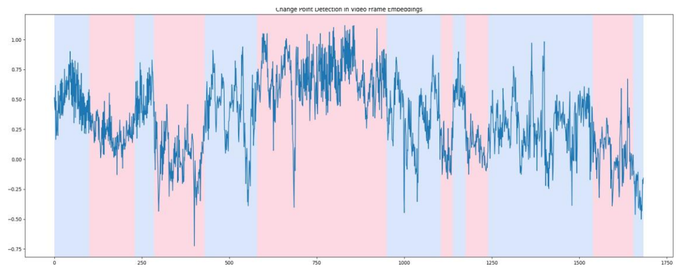
- Detects shifts in the context of the data
- The detected shifts are then compared with labeled events

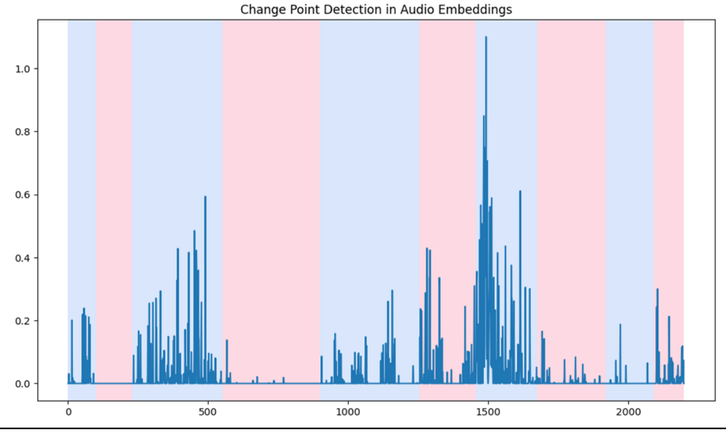
- Data comes from walks recorded with numerous modalities monitored
- Was provided by research from neuroscientists at UCLA

RESULTS

- Video and audio shifts were found to be very similar
- Each shift differed on average by 6.29 seconds between the two modalities
- Mean and standard deviation of the two sets had a cosine similarity of 99.979%
- The model's detected shift times closely matched the major contextual changes identified through observation

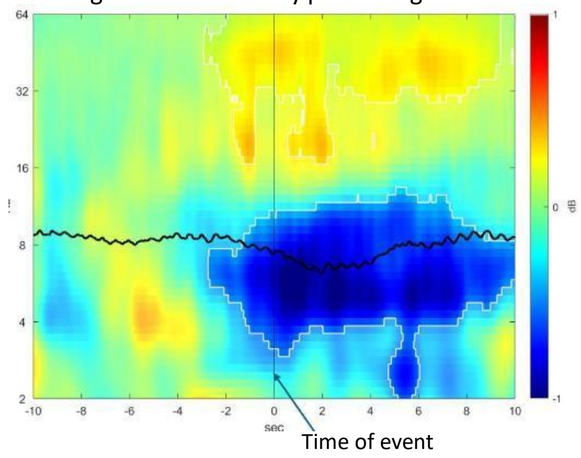






CONCLUSIONS

- The strong correlation between visual and auditory shifts suggests that these methods can reliably detect contextual changes in human experiences
- The high accuracy and alignment with manually labeled events demonstrate the potential for automated systems to assist in memory processing research
- Future research could include linking the shifts with the brain signals to understand the stimulus related to memory retention and investigating other modalities for a more comprehensive understanding of human sensory processing



REFERENCES

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