

DART

(Detection of Attention span in Real Time)

Idea / Approach Details

Organization Name : Great Learning
Problem Statement : Attention Span Detection in Online Instructor Led Sessions
Team Name : Singularity
Team Leader Name : Shradha Khapra

By 2021, online education market in India is going to be a \$2BN industry. But the learning experience is still rid with distractions leading to inefficiency. DART is a real-time solution to monitor and measure a learner's attention span in live sessions.

SOLUTION

DART -> Browser Extension using Microphone & Camera.

Pre-trained software using GreatLearning video set, MIT's face detection set

Extension detects :

- Facial and eye pattern
- Background Noise
- Browser Activities
- Dialogue Pattern (1 way vs 2 way)

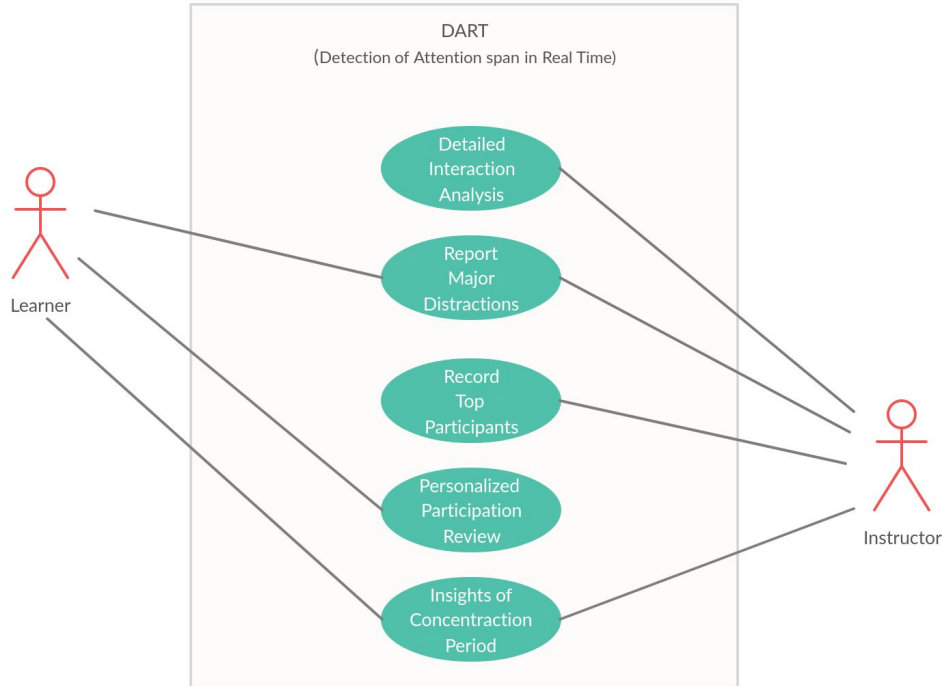
Results In Real Time:

- Popups for Suboptimal Participation
- Dashboard - Attention Span & Score
- Analysis of Dialogue Pattern
- Report of Participation
- Top Learners

Data sent back through API approaches



USE CASES



TECH STACK

- **Python**
OpenCV, TensorFlow, Flask
- **Web Technologies**
HTML, CSS, JavaScript, NodeJS, ExpressJS, MongoDB, Rest APIs
- **Machine Learning**
Face Attention Neural Network

DEPENDENCY

Laptops/Computers with

- Front Camera
- Microphone