



EMOZO

Fall 2022 DATA Initiative Final Client Presentation

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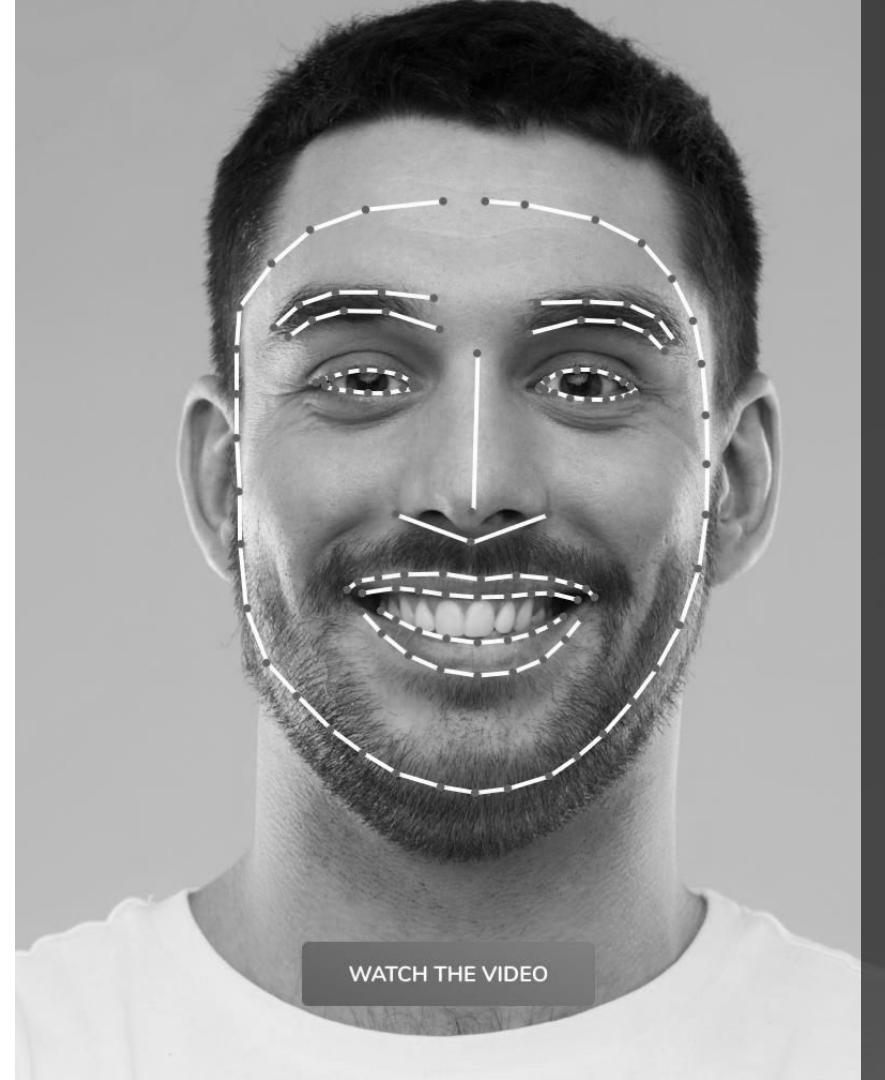


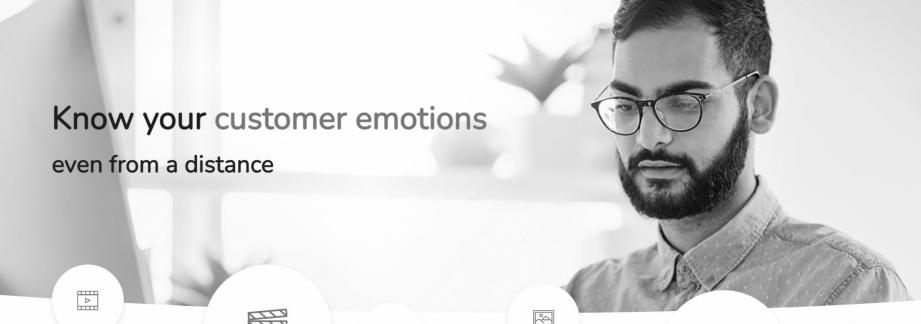
Hello & Welcome

We are so excited to speak to you about our work this semester.

We were tasked to validate the accuracy of Emozo's facial coding technology in detecting emotions from changes in facial expressions in reaction to happy and sad visual stimuli.

LET'S GET STARTED





Know your customer emotions
even from a distance



Agenda

BACKGROUND

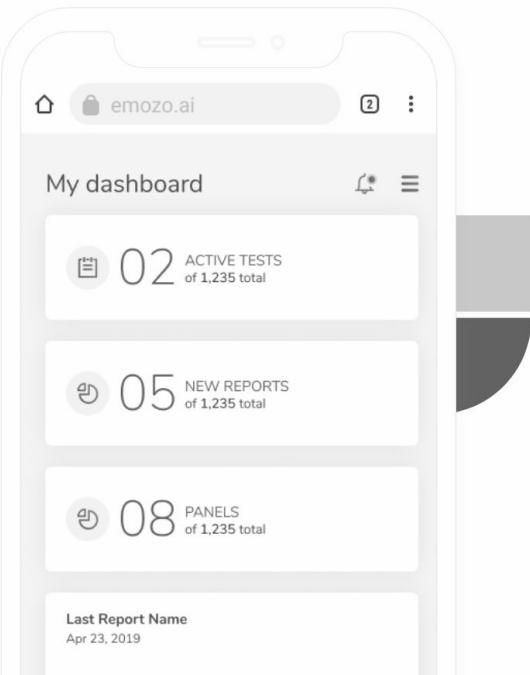
LITERATURE REVIEW

SURVEY DESIGN

EXPERIMENT RESULTS

CONCLUSIONS

What is emozo ?



B2B SaaS model aimed to help clients gain perspective on their customer's emotions

Emozo's uses facial coding to detect shifts in emotional response to creative triggers

Client sets up a test on the Emozo platform and send it to their customers



Emotions

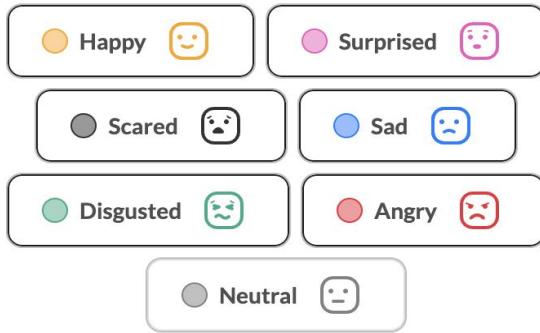
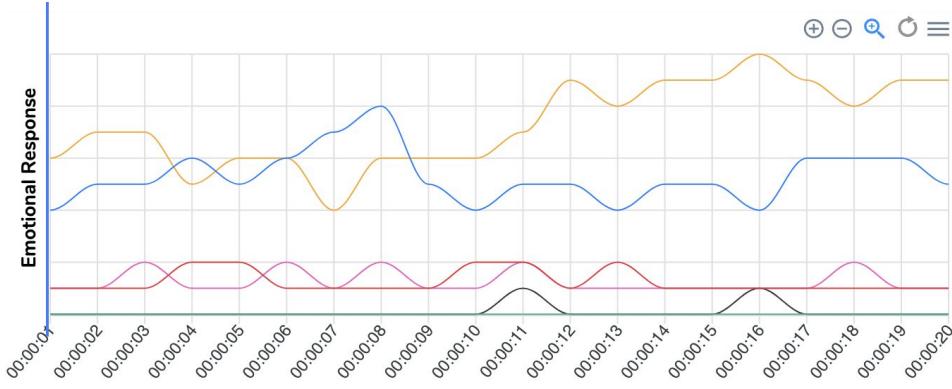
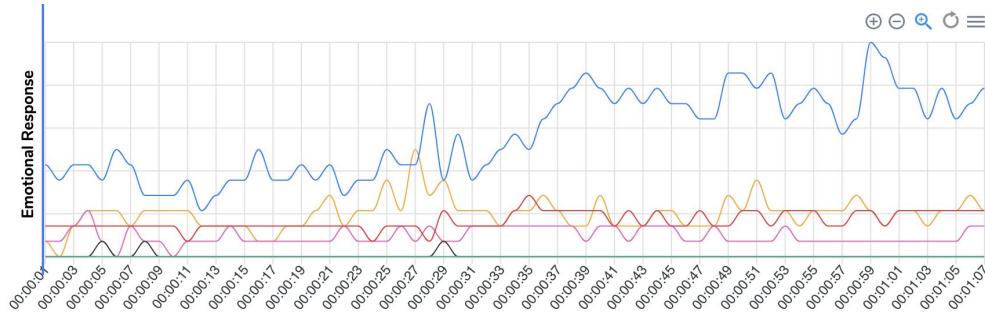


Image Output



Video Output



PROJECT EXPECTATIONS



How accurate is Emozo's facial coding technology in measuring a person's unconscious emotional response?



LITERATURE REVIEW

Facial Coding Research



EXPERIMENT DESIGN

Testing Software on Subjects



RESULTS VALIDATION

Data Analysis & Presentation

What is Facial Coding?



AI TRAINING

An AI is trained using large sets of media to be able to independently categorize emotions based on coordinates.



THE TRACKING BEGINS

Facial coding tracks facial movement using landmark coordinates on the face and recording their positions over time .



FROM POINTS TO EMOTIONS

Coded coordinates are translated into emotions by an AI classifying the actions of the eyebrows, nose and lips.



LITERATURE REVIEW: HIGHLIGHTS & TAKEAWAYS

INCONSISTENT EXPRESSIONS

Emotions aren't "one size fits all" and aren't universal. They vary based on factors such as one's culture.

THE DISCREPANCY BENEATH

A person's inward emotions are not always conveyed by their facial expressions.

TRAINING FLAWS

If an AI is not trained in a diverse manner, it will have biases that interfere with its ability to accurately identify emotions.

BUSINESS APPLICATIONS

Facial coding is a cost effective marketing tool, more time efficient than human coders

EXPERIMENT DESIGN



1. Expose 150 subjects to two videos via Emozo platform
 - Recruiting → business analytics & clubs
 - Baseline image → happiness
 - Advertisement → sad
2. Collect Data:
 - Ethnicity Data (gender, age, race)
 - Question after video → which emotion?
 - Emotional change using Emozo software
3. Reflect:
 - Observe percent change from neutral stimuli to test success of our hypothesis

SURVEY EXPERIENCE

Screener Questions

emozo

Age range
Please select your answer.

18 - 27
 28 - 37
 38 - 47
 48 - 60

Next

Environment Check + Calibration

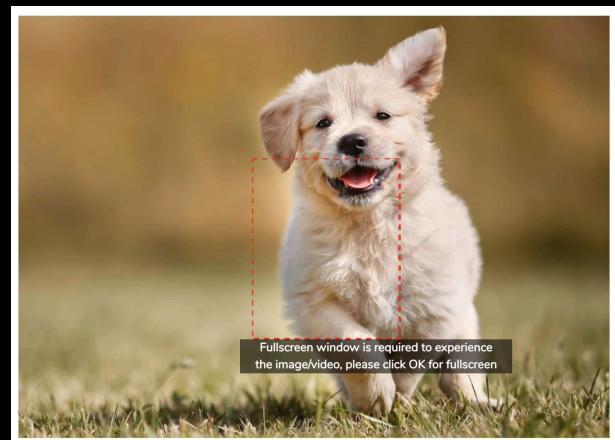
emozo

What you need to do

- 1 Set up your device camera.
- 2 Play a game and set up eye-tracking.
- 3 Watch your screen and answer short questions.

Let's Setup >

Watch Video

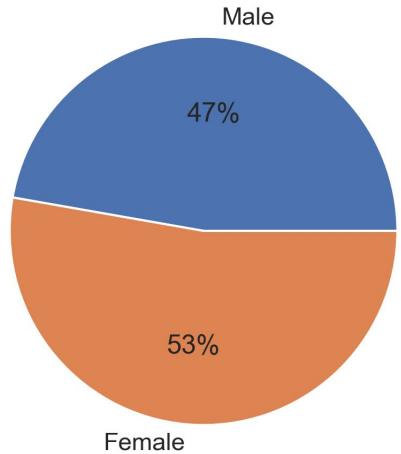


NEXT

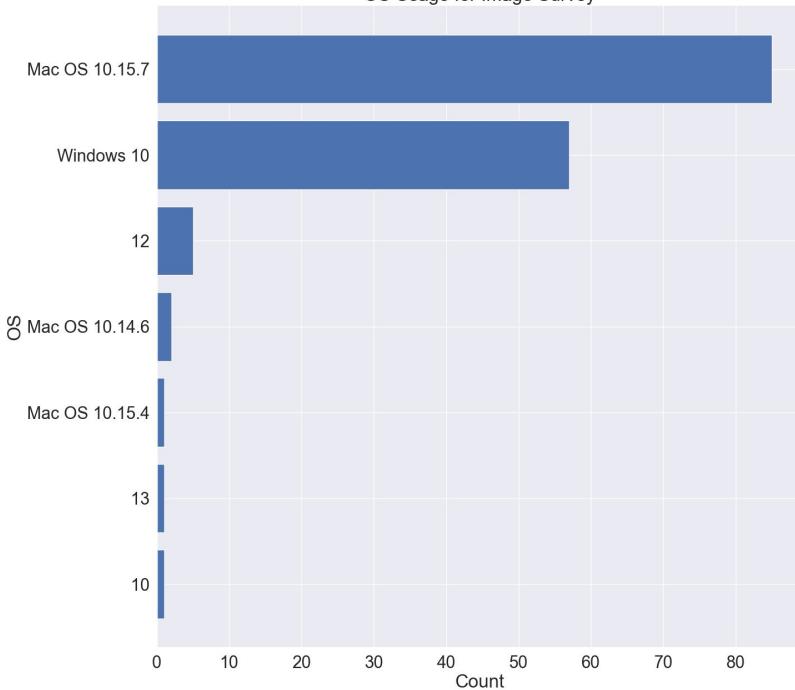
S U R V E Y D E M O G R A P H I C S

emozo

Gender Distribution for Image Survey

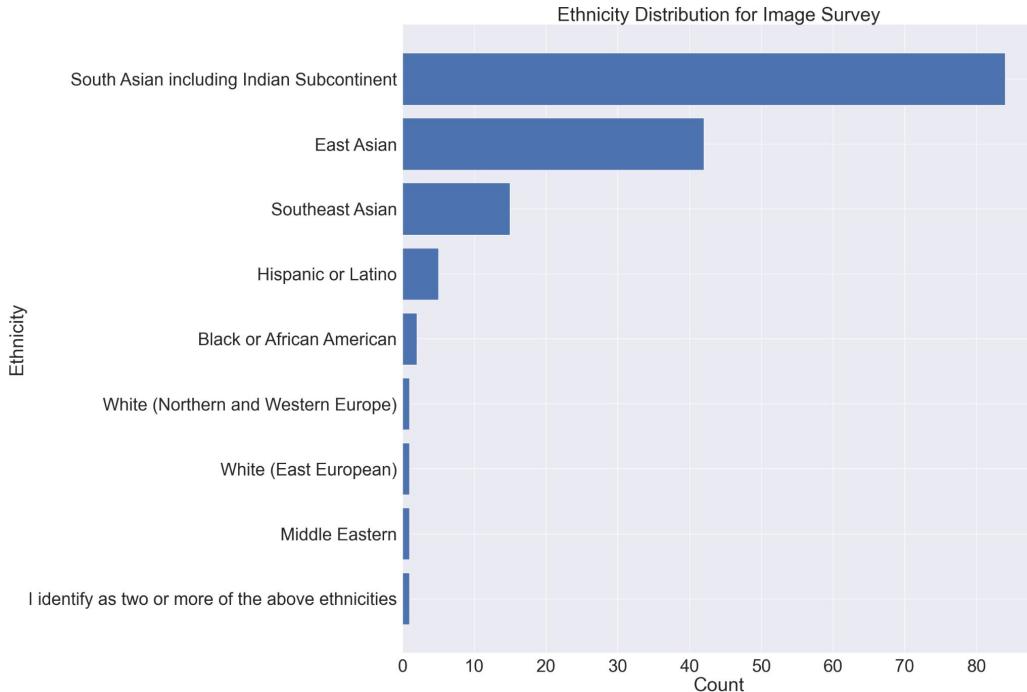
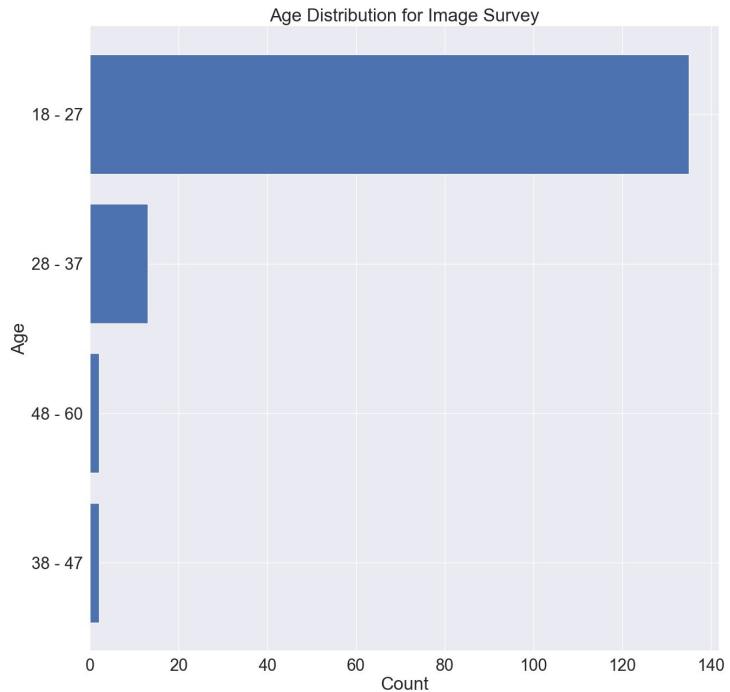


OS Usage for Image Survey



S U R V E Y D E M O G R A P H I C S

emozo



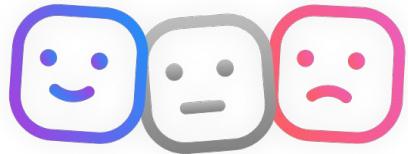
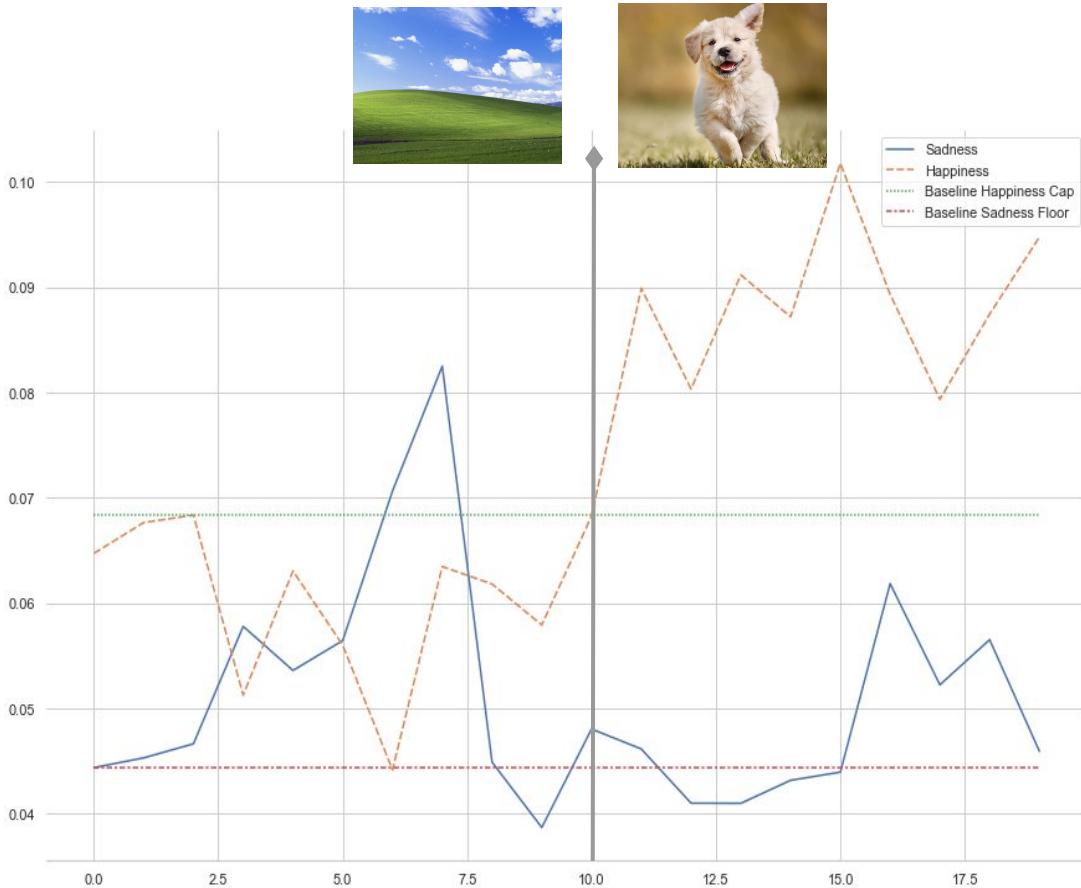


IMAGE SURVEY



DATA ANALYSIS



VIDEO SURVEY

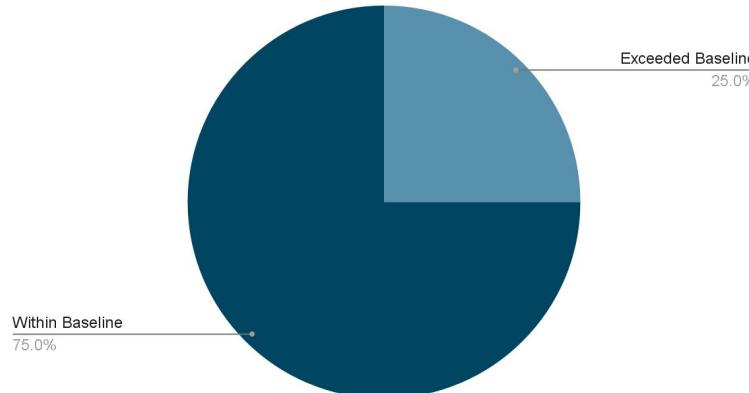
Sandy Hook Promise Ad





INDIVIDUAL RESPONDENT BEHAVIOR

Individual Respondent Behavior - Image



Individual Respondent Behavior - Video

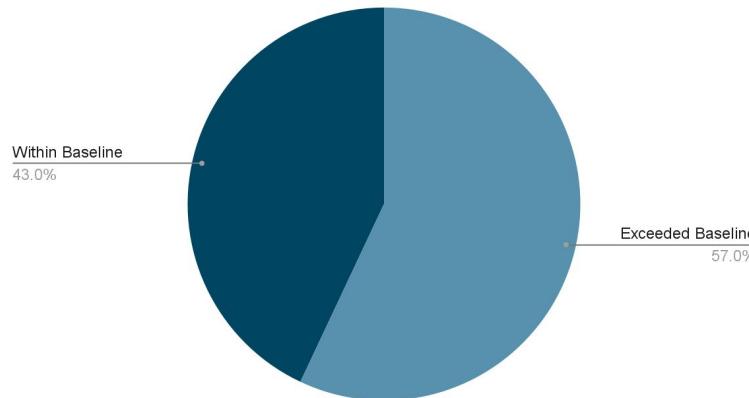
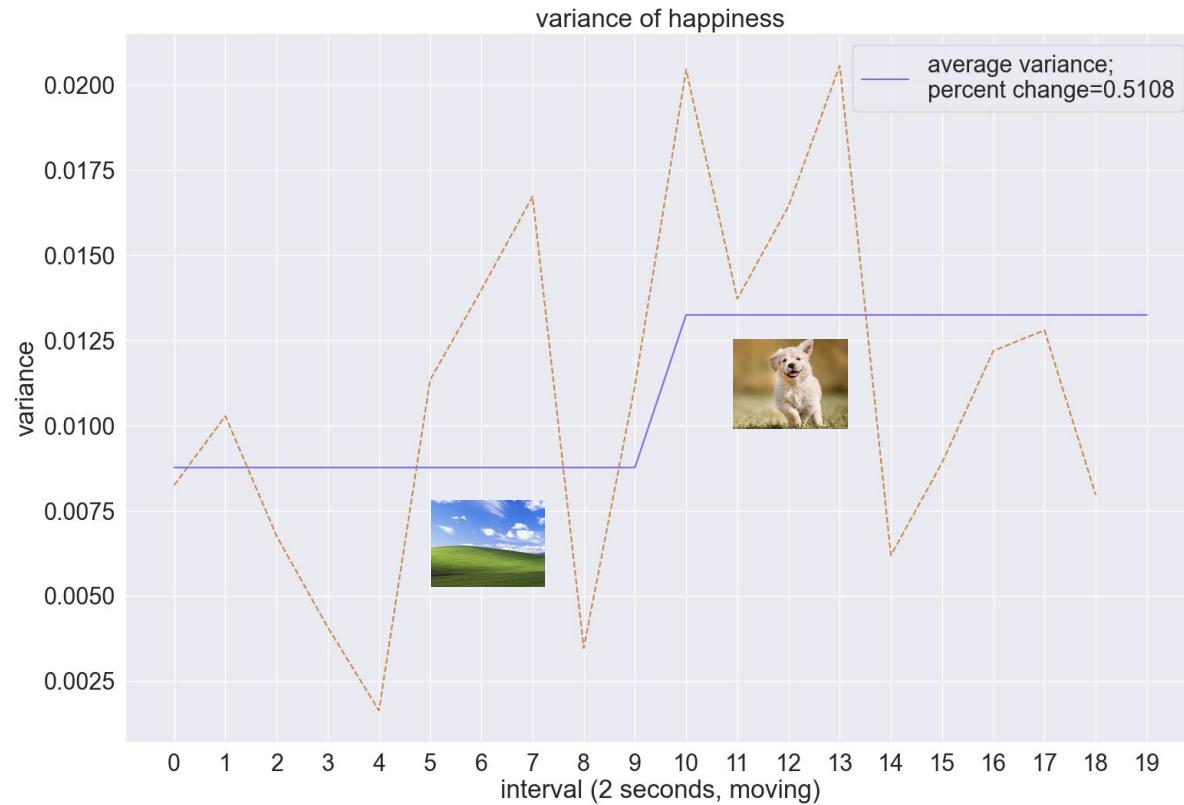




IMAGE SURVEY VARIANCE

51.1% Increase
from neutral to stimulus

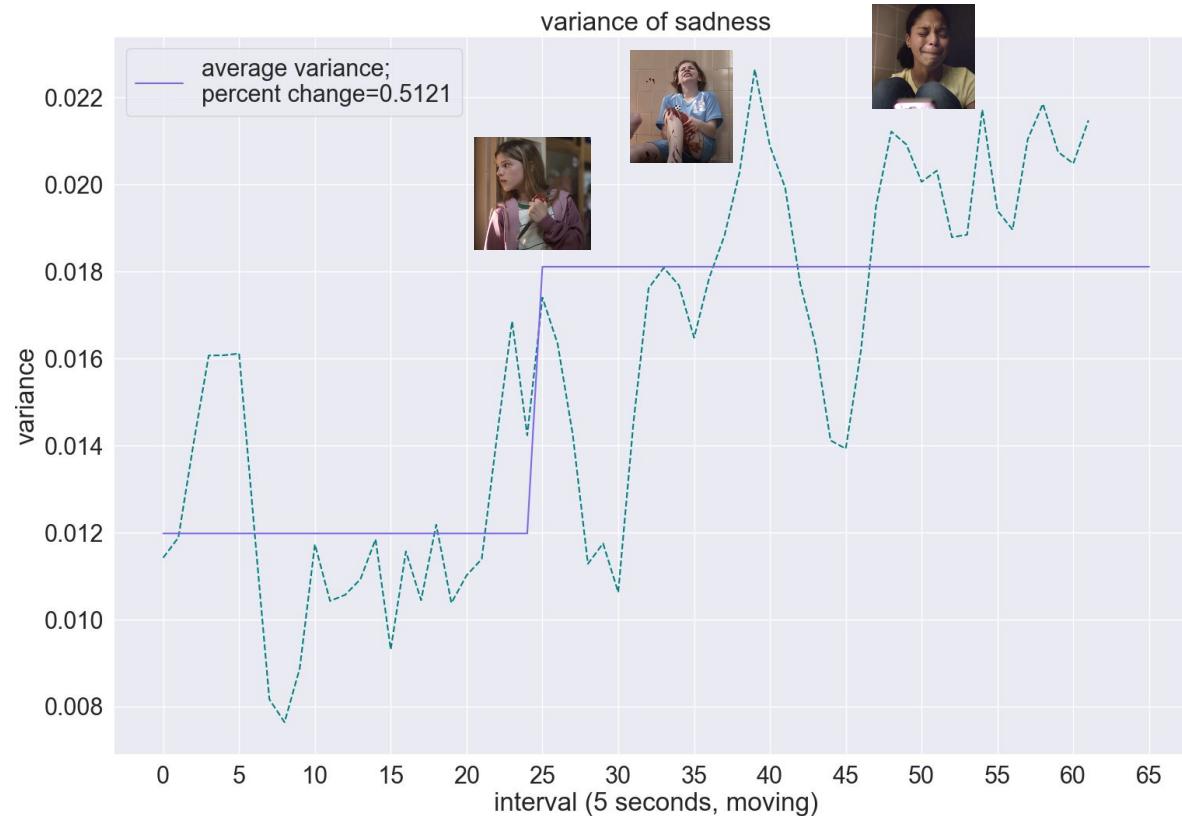




VIDEO SURVEY VARIANCE

51.2% Increase
from beginning to the first
sad spike and onward

National Institute of Health: 'Measures of Emotion' (Mauss and Robinson) concludes that emotional responses correspond more to dimensions than states



REFLECTION

ASSUMPTIONS

We are assuming that respondents who see a happy image (dog) will visibly show happiness in their facial expression

STRONGER STIMULI

Using stronger stimuli may work better with Emozo's technology

OUTLIERS

The Emozo platform should let clients filter out outliers so their time series graph is more reflective of the majority respondent's emotions (averages are weak to outliers)

SCREENER MULTI-SELECT

Allow users to select multiple ethnicities.



**Thank you
for Listening!**