ARTIFICIAL INTELLIGENCE

PEAS ANALYSIS BY

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RECOGNIZE EMOTIONS IN IMAGES OF HUMAN FACES

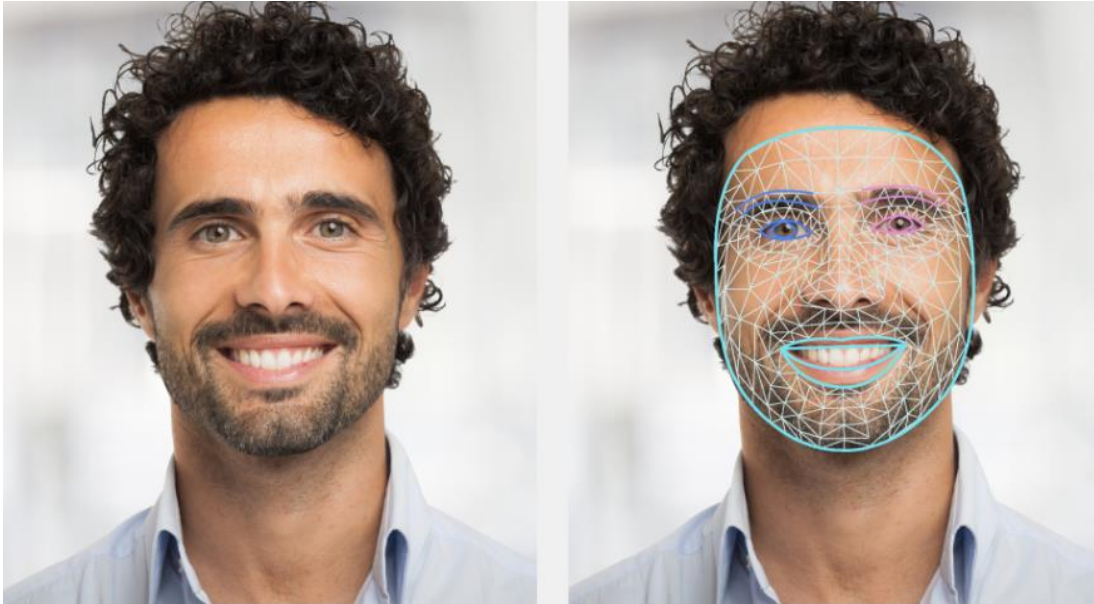What is AI capable of doing today?

AGENDA

INTRODUCTION

Recognizing emotions in images of human faces is a fascinating and challenging task in the field of computer vision and artificial intelligence.
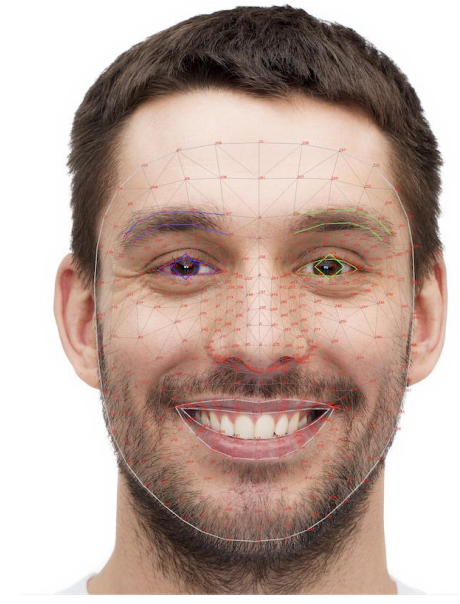
IS AI CAPABLE OF IT?

This can be solved and the emotions of humans can be detected with the help of AI by using modules like MediaPipe from Google which gives accuracy using face landmarks.
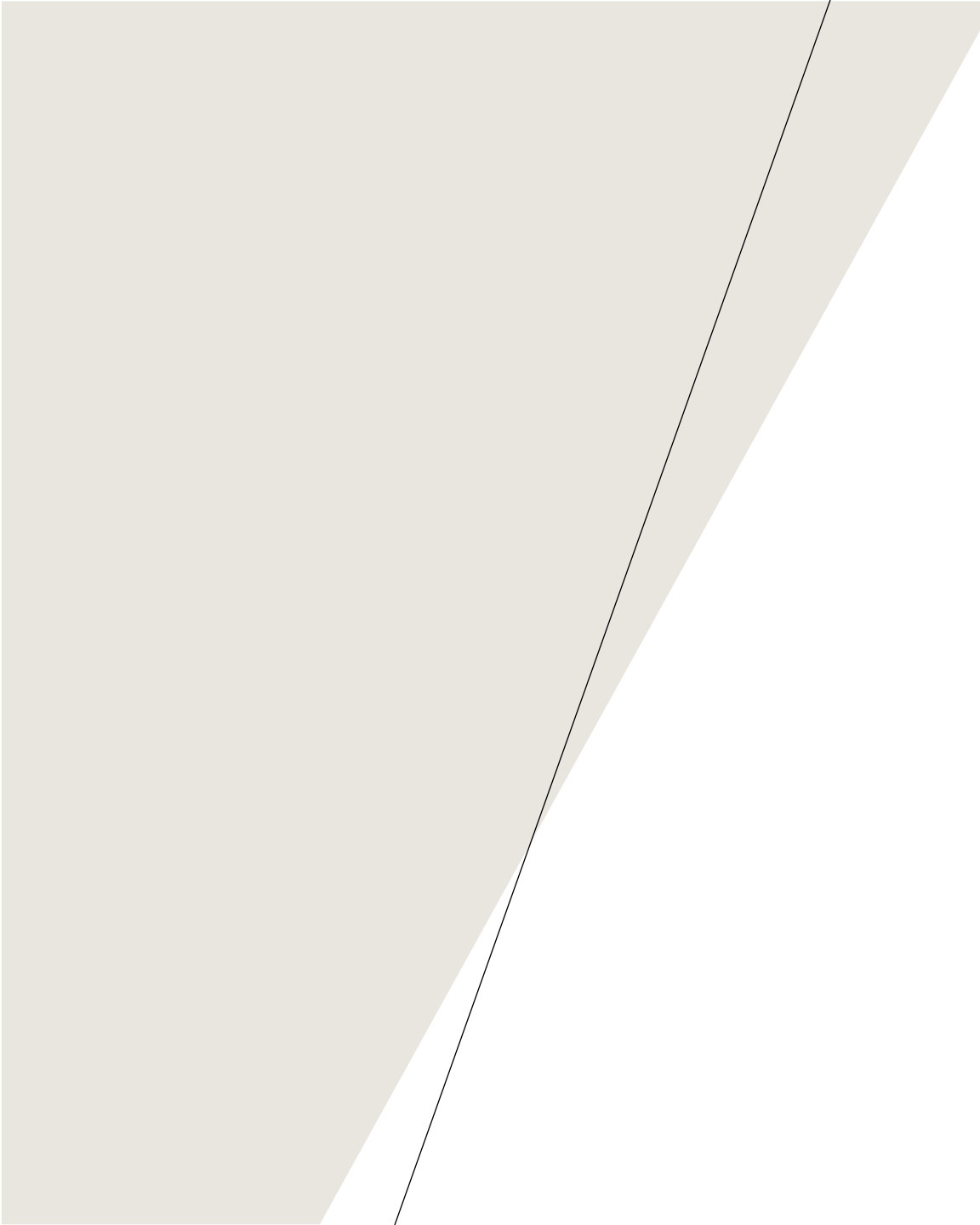
MEDIAPIPE

Face Mesh

468-Point Face Landmarks

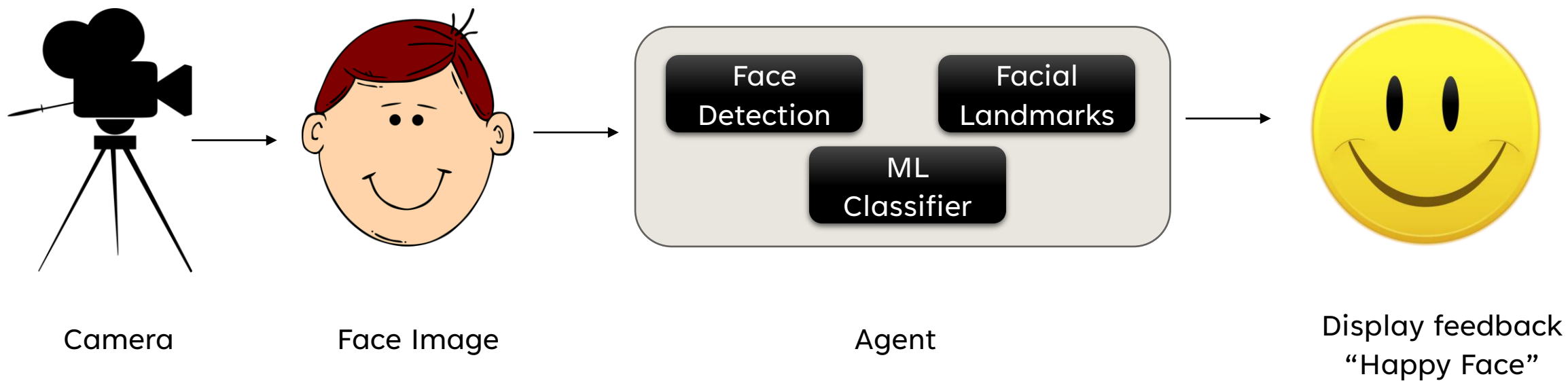URL: https://developers.google.com/mediapipe/solutions/vision/face_landmarker

PEAS ANALYSIS FOR FACIAL EMOTION RECOGNITION

PEAS ANALYSIS

Agent Type	Performance Measure	Environment	Actuators	Sensors
Face Recognition	1. Accuracy 2. Precision 3. Speed 4. Robust 5. Bias Mitigation	1. Camera 2. Lighting Conditions 3. Facial Expressions	1. Display feedback 2. Accessibility Devices	1. Camera 2. Depth Sensors 3. Eye Tracking Devices

WORKFLOW

Camera   Face Image

Face Detection

Facial Landmarks

ML Classifier

Agent

Display feedback "Happy Face"

EXAMPLES

1. Healthcare uses it to assess pain levels in patients.

2. Entertainment platform uses it for personalized content recommendations.

SUMMARY

AI is proficient at recognizing emotions in human faces through computer vision and machine learning. It detects basic emotions, gauges intensity, and operates in various contexts, including real-time applications. Customizable models exist, but ethical and privacy concerns surround its use and regulation.

THANK YOU