

CAN A MACHINE UNDERSTAND FEELINGS?

EMOTION RECOGNITION AND CONTEXT



8-12 years



30-40 min



6-30 participants

Observation, role-play and discussion activity

OVERVIEW

Participants investigate how people recognize emotions through facial expressions, tone of voice, body language and situational context. They discover that the same signal can have different meanings and consider why an AI system may struggle to interpret subtle, mixed or culturally expressed emotions.

LEARNING OBJECTIVES

Participants will:

- identify different signals people use to interpret emotions
- understand that facial expressions alone may not reveal how someone feels
- recognize the importance of voice, body language and context
- explore why people and AI systems can misinterpret emotions
- understand the difference between detecting observable patterns and genuinely experiencing feelings
- practise responding with curiosity rather than making immediate assumptions



MATERIALS

- Emotion cards displaying words or symbols for feelings
- Situation cards
- Short sentence cards
- A board, flip chart or large sheet of paper
- Markers
- Optional envelopes for the situation cards
- Optional voting cards labelled happy, sad, angry, afraid, surprised, confused and unsure

Suggested emotions include:

- happy
- sad
- angry
- afraid
- surprised
- confused
- nervous
- excited
- disappointed
- proud

Suggested neutral sentences include:

- "I can't believe that happened."
- "That was unexpected."
- "I'm ready."
- "Thank you very much."
- "I didn't know about that."
- "We need to talk."

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PREPARATION

Prepare several neutral sentence cards. Each sentence should be capable of expressing more than one emotion depending on how it is spoken.

Prepare situation cards that provide additional context.

For example:

- You studied hard and received a very good result.
- Your friend forgot something important to you.
- You are about to perform in front of a large audience.
- You hear a loud noise behind you.
- Someone has organized a surprise for you.
- You lost a game after coming very close to winning.
- You are entering a new school for the first time.
- Your missing pet has returned home.

Arrange the emotion cards where everyone can see them. Make it clear that participants will act fictional emotions and will not be required to discuss personal experiences.

INTRODUCTION

Ask the participants:

- How can you tell when someone is happy?
- Can a smiling person also feel nervous or uncomfortable?
- Can two people show the same feeling differently?
- Can we always know how someone feels just by looking at their face?
- What information might a machine use to guess someone's emotion?

Explain: People use many clues to understand feelings. We may observe a facial expression, listen to the voice, notice body language and consider what is happening. Some AI systems also analyse visible or audible patterns, but those patterns do not always reveal a person's true feelings.

Tell participants that the activity is about making careful guesses, not proving exactly how someone feels.

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INSTRUCTIONS

1) RECOGNIZE A CLEAR EMOTION

Invite a volunteer to select an emotion card without showing it to the group. The participant communicates the emotion using a facial expression and body language, but no words.

The group guesses the emotion.

Ask:

- Which clues did you notice?
- Did everyone interpret the expression in the same way?
- Were you certain, or were you making a guess?

Repeat with two or three different emotions.

2) USE ONLY THE VOICE

Give a participant a neutral sentence, such as:

"I can't believe that happened."

Secretly show the participant an emotion card. Ask them to say the sentence using a voice that communicates that emotion while keeping their face as neutral as possible.

The group guesses the emotion and identifies the vocal clues they noticed, such as:

- volume
- speed
- pitch
- pauses
- emphasis
- trembling or laughter

Repeat the same sentence with a different emotion. For example, it could be spoken with excitement, anger, fear or disappointment.

3) USE ONLY THE WORDS

Read the sentence aloud in a neutral voice or display it in writing:

"That was unexpected."

Ask participants how the speaker might be feeling.

Accept several answers. Point out that without facial expression, tone or context, the words alone provide limited information.

4) ADD SITUATIONAL CONTEXT

Combine a neutral sentence with different situation cards.

For example: Sentence: "I'm ready."

Possible contexts:

- You have practised for a performance and are excited to begin.
- You are about to have a medical examination and feel nervous.
- You have been waiting for a race and feel determined.
- You do not feel prepared, but everyone is waiting for you.

Ask how the sentence's meaning changes in each situation.

Explain that context can completely change how people interpret the same words, expression or tone of voice.

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INSTRUCTIONS

5) BECOME AN EMOTION-DETECTION MACHINE

Divide participants into small groups.

One group acts as the
“emotion-detection machine.”

Give a volunteer:

- one neutral sentence
- one emotion
- one situation

The volunteer performs the sentence.

The machine group must decide:

1. which emotion it detects
2. which clues influenced its decision
3. how confident it is: very confident, somewhat confident or unsure

Reveal the emotion and situation after the prediction.

Repeat with new volunteers and machine groups.

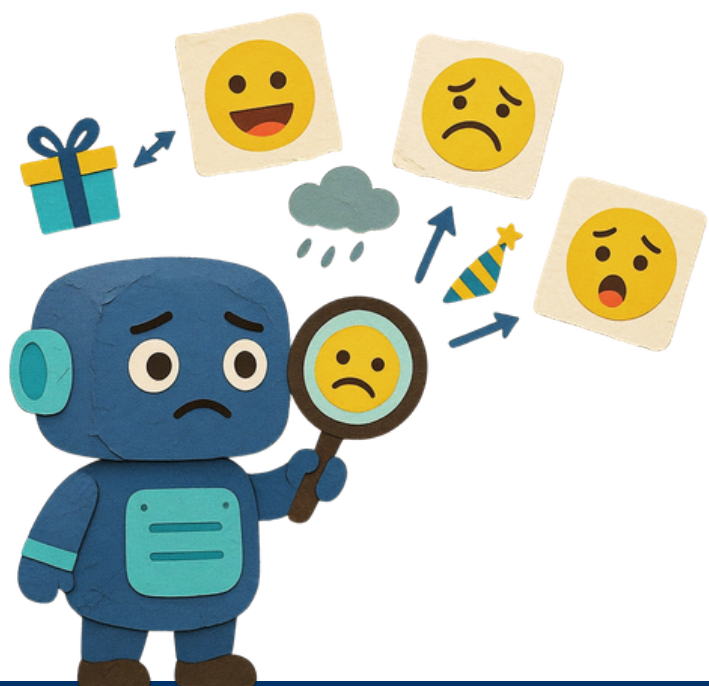
6) TEST A MIXED EMOTION

Give a participant a situation that might involve more than one feeling, such as:

- You are moving to an exciting new place but will miss your friends.
- You won a competition, but your close friend did not.
- You are performing on stage and feel both nervous and excited.
- You found your lost pet after being worried all day.

Ask the participant to portray the situation. Allow the machine group to select more than one emotion.

Discuss why mixed feelings are difficult to classify using a single label.



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DISCUSSION AND REFLECTION

Ask the participants:

- Which clues were easiest to recognize?
- Did the same sentence communicate different feelings?
- How did context affect your interpretation?
- Did everyone express and recognize emotions in the same way?
- Can a smile always be labelled as happiness?
- Why might someone hide or change their emotional expression?
- What made the machine group uncertain?
- Could an AI system make an incorrect prediction about someone's feelings?
- What might happen if an incorrect prediction were used in an important situation?
- What is a respectful way to find out how someone feels?

Emphasize: Observing clues can help us form a careful guess, but the most reliable way to understand someone's feelings is often to ask them and listen to their response.

CONNECTION TO ARTIFICIAL INTELLIGENCE

Some AI systems attempt to recognize emotions by analysing measurable signals, including:

- facial movements
- tone, pitch and rhythm of voice
- word choice
- body movement
- heart rate or other physical signals

The system compares these signals with patterns in its training data and produces a prediction, such as "happy," "angry" or "nervous."

However, emotions are complex. The same expression may have different meanings depending on the person, culture and situation. People can experience several emotions simultaneously, hide their feelings or express them in unexpected ways.

An AI system can detect patterns associated with emotions, but it does not experience those emotions itself. Its prediction should therefore not automatically be treated as a fact.

This is particularly important when emotion-recognition technology is considered for sensitive settings such as schools, healthcare, recruitment or security.

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EASIER VARIATION

Use four clearly distinguishable emotions:

- happy
- sad
- angry
- afraid

Participants match simple situation cards with emotion cards.

For example:

- receiving a birthday surprise
- losing a favourite toy
- hearing a frightening noise
- having something taken without permission

Explain that these are possible responses, not the only ways a person might feel.

The facilitator can perform all expressions and voices if participants are uncomfortable acting.

MORE CHALLENGING VARIATION

Create an “emotion evidence chart” with four columns:

Words	Voice	Face and Body	Context
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After each performance, groups record the evidence available in each category. They then make a prediction and assign it a confidence level from one to five.

Introduce cases where the signals conflict.

For example:

- positive words spoken in an angry voice
- a smile during an uncomfortable situation
- a calm voice combined with nervous body movement

Ask groups which evidence they trusted most and whether their confidence should decrease when the signals disagree.

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FACILITATOR NOTES

- Do not ask participants to reveal personal emotional experiences.
- Allow children to observe rather than perform if they prefer.
- Avoid presenting one facial expression as universally connected to one emotion.
- Reinforce that all answers are interpretations based on limited information.
- Never describe a participant's real emotional state. Keep the activity focused on fictional roles.
- Be mindful that facial expressions, eye contact and gestures vary between individuals and cultures.
- Avoid judging acting ability. Focus on the signals participants chose to communicate.
- Use the word "prediction" rather than "diagnosis."
- Emphasize that AI emotion recognition can be uncertain and should not replace respectful human communication.
- If the group begins discussing whether an AI can be a friend, distinguish simulated empathetic responses from feelings experienced by a person.

KEY WORDS

EMOTION

A feeling such as happiness, sadness, anger or fear.

FACIAL EXPRESSION

A movement or arrangement of facial features that may communicate information.

BODY LANGUAGE

Communication through posture, gestures and movement.

CONTEXT

The situation or circumstances that help explain meaning.

SIGNAL

An observable or measurable piece of information.

EMOTION RECOGNITION

The attempt to identify emotions from signals such as expressions, voice or words.

PREDICTION

A conclusion based on available patterns or evidence.

CONFIDENCE LEVEL

An indication of how certain or uncertain a prediction is.