

LIFEisGAME

Background and challenges

LIFEisGAME: Learning Facial Emotions using Serious GAME

A low cost real time facial animation system embedded in an experimental game, which allows to further study the symptomatic problems of facial emotion recognition.

LIFEisGAME attempts to show how it is possible to apply a pioneer serious game approach to teach people with Autism Spectrum Disorders (ASD) to recognize facial emotions, using real time synthesis and automatic facial expression analysis. The ability of socially and emotionally impaired individuals to recognize and respond to emotions conveyed by the face is critical to improve their communication skills.



Description and main innovation



RECON MEE

Encourages the children to watch a sequence of random facial expressions and recognize the emotion. They learn by identifying the specific expression and actively experiment with different possibilities of detecting the desired facial expression.

SKETCH MEE

The children build facial expressions on a 3D character to match defined emotions, by drawing strokes on the 3D avatar or moving facial features, such as the corner of the mouth, nose or eyebrows.

MIMIC MEE

The children learn how to recognize and identify facial expressions by mimicking facial expressions on the 3D avatar, like if they were playing with a mirror.

PLAY MEE

The children are presented with a story and are expected to perform the expression correspondent to the situation depicted in the story. They can experiment how to portray emotions according to each situation.

The game is divided into **four different modes**, similar to the stages of the learning cycle.

The children start by learning to **identify emotions** associated to facial expressions.

Then they discover **how to portray** a specific emotion.

Afterwards they learn by **imitating** facial expressions.

Finally they can apply all the knowledge in the context of a **story**.

Achievements

- Free online application available to the general public and specialized institutions for learning disorders (<https://www.portointeractivecenter.org/lifeisgameonline/>).
- 7 exchange students | 5 Master thesis | 2 PhD thesis
- 36 international publications | 1800 youtube visits
- 20 invited talks during the execution of the project