



Project Profile

EmoSpaces

Enhanced Affective Wellbeing based on Emotion Technologies for adapting IoT spaces

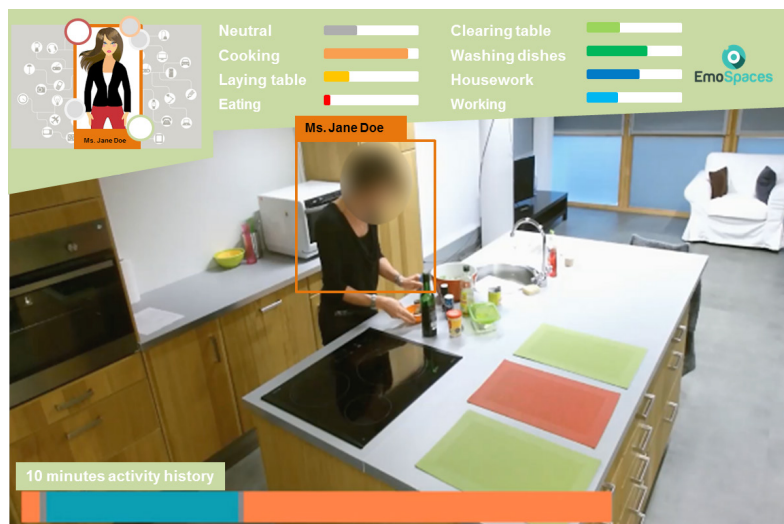
The goal of EmoSpaces is to define an IoT platform for developing affective services. Its main components are: 1) Technologies for Multimedia Affect recognition based on Sensing and Smart Devices; 2) Big Data Platform for Semantic Sensor Fusion; 3) Context-aware adaptation and Automation of IoT Environment; and 4) Social Simulation and Testing tool for developing cost-effective affective services.

ADDRESSING THE CHALLENGE

In the eHealth, elderly and wellbeing domain, much research has been carried out on the impact of emotion on the development and progress of different illnesses as well helping people cope with depression. Nevertheless, developing services in this area is still challenging. In terms of crisis management, the importance of effective emotion management and the role of emotional intelligence are widely recognised. The aim of the EmoSpaces project is to go a step further and advance IoT automation based on affective technology.

PROPOSED SOLUTIONS

The main innovative aspect of EmoSpaces lies in emotion and sentiments as a context source for improving intelligent services in IoT, targeting new technologies for capturing/recognising social and emotional clues/signals and their associated models for characterising the behaviour of users in smart spaces as well as their cognitive and physical context. These technologies will be incorporated in a suitable holistic architecture to guarantee the adaptive use, effective transmission and accurate interpretation by the actors and stakeholders in the value



Emospaces platform: IoT and the recognition of a person's activity

chain. EmoSpaces will take advantage of advances in the miniaturisation of computer technology that enables the integration of processors and sensors in everyday objects.

The key innovations will lie in the development of a smart environment on an intelligent IoT platform and in the building on this platform of affective services that respond to profiles in accordance with expectations and desires.

PROJECTED RESULTS AND IMPACT

The social impact and acceptability of these technologies is a cornerstone requirement, with the elderly as primary target audience. The project will go beyond current state of the art and create a flexible and open framework with services for users based on adapting the environment to user profiles such as the recommendation of multimedia contents, physical activities to improve the wellbeing and resilience of users, and assisting the elderly to live independently and to cope with crises.



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Project start

May 2016

Project leader

Andreina Chietera, Thales Services

Project website<https://itea3.org/project/emospaces.html>**Project end**

September 2019

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