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Using emotions for the development of human-agent societies

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Motivation

In the last few years we have seen the introduction of emotions into ambient intelligent (AmI) applications.

Through the emotional simulation the artificial intelligence entities (agents) may detect or reproduce the human emotion to create complex simulation.

In this complex simulation the agents use emotions as elements in the decision-making process.

Objective

We propose to use emotions for interactions between humans and agents.

Human-agent societies are a new kind of aggregation where humans and agents can interact transparently.

The interaction between humans and agents allow to create applications where agents can perceive the real world and interact with it.

Integration process

We create a tool by which the design of simulation is easier and faster than usual. At the same time we propose a new emotion model allowing to calculate the social emotion of a group.

The emotional simulation is a new element that pretends to introduce emotions into artificial intelligence entities. Emotion is a new parameter that allows to help the agent in its decision-making process.

The social emotional model pretends to calculate the emotion of humans and agents.

Conclusions

Multi-agent systems allow the design and implementation of applications where the main components can be humans and software agents.

The introduction of emotions in simulation allows us to create a complex simulation in which the emotion is an important part in the decision-making process.

Human-agent societies are defined by environments where humans and agents interact together. Emotions are a way humans (and agents) express themselves. The definition of a Social Emotional Model allows to know how is the emotion of the group, and even how it is evolving.