

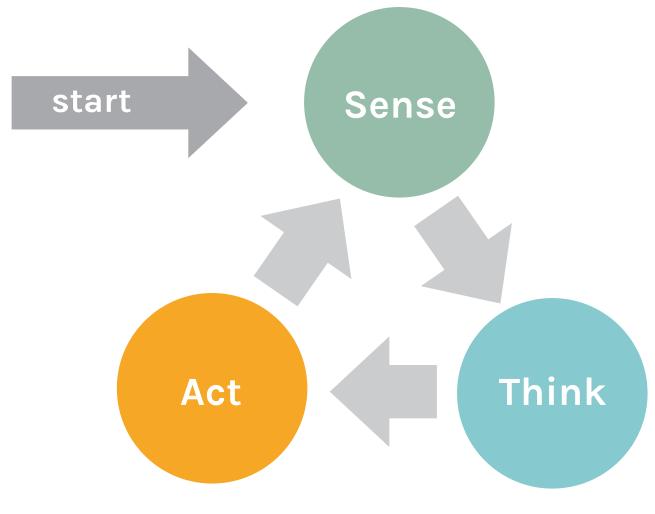
EmpaTeX 2014 — workshop results

Organizers: Jan Van Den Bergh, Mike Matton, Koen Willaert, Kris Luyten Participants: Alexandre Denis, Paul Marrow, Joël Dumoulin, Calliope Georgousi, Ioan Marius Bilasco, Ian Forrester, Carlos Gomez-Uribe

WHAT IS AN EMPATHIC EXPERIENCE?

- » It captures goals / intentions of the user
- » Content adapts itself to your own context and interest
- » It has appropriate reactions and includes feedback
- » The timing of the actions is utterly important
- » It learns by explicit interaction implicit interaction correction feedback
- » It understands feelings of the user
- » It knows users are human beings
- » It helps users achieve their goals

WHAT TYPE OF TECHNOLOGY IS NEEDED?



Technological requirements:
Technology should
support the user
act upon user context
know perfect time for specific actions

WHAT IS LACKING IN STATE OF THE ART?

- » Reliability of technology for emotion detection
- » Well working inference systems for this purpose
- » Data & ground truth for training Empathic systems
- » Paradigms / models upon which you can actuate
- » Validation of technology within different application domains
- » User centric approach for model generation

WHAT ARE OPEN CHALLENGES?

- » Privacy
- » Trust & trustworthiness
- » Desire to be correct to be precise » dealing with errors
- » User-oriented design approach for intelligent systems
- » Ecosystem for collecting and exchanging required information
- » Good statistical models of user behaviour
- » Translating theoretical models into working systems

WHAT INFORMATION IS NEEDED?

Information about the user?

- » User context User behaviour / habits User history User rating (explicit, implicit, ...) The current "actionable" mood
- » Social context
- » Generic context
 Time, location, ...

Information about the content?

- » Producer information e.g. content structure (stories, ...)
- » Affective description
- » Difficulty level
- » Descriptive metadata

HOW TO COLLECT THE INFORMATION?

- » Explicit <-> implicit collection
- » Manual <-> automated collection
- » Interaction information <-> sensor information
- » Inference of information

ACTUATION

Actuate on:

- » content: adapting (stretching, ...), suggesting, recommending, pausing...
- » user interaction
- » user environment: smart objects

Requirements for actuation:

- » dealing with errors
- » how to cope with feedback on actuation?



