Vision for Interactive Technologies

Proactive, multimodal, social, and autonomous agents which enable rich, conversational interactions between people and between people and machines

- Natural communication & interaction
- Proactive & autonomous
- Display social norms corresponding to environment
- Context-awareness
- Capability for social and affective behaviour

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What's lacking

- Multimodal recognition, synthesis & understanding

- Linking Data Science to Interaction

- Contextual knowledge and understanding to close the loop between interactive systems and analytics

- Finding and processing unstructured multimodal content during an interaction

In a multilingual setting

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Application vision for interaction

1. ## Smart personal assistants

   mobile multimodal interaction – socially aware, "meta-capable", persistent, life-long

2. ## Interfaces for all

   multimodal interfaces designed for older people, and for people with disabilities

3. ## Active access to complex information

   linking knowledge to rich interaction for agents which can search proactively and can make inferences from (limited) knowledge, across multiple heterogenous data streams

4. ## Multilingual shared collaboration

   multimodal collaborative interaction including translating and augmented videoconferencing, design and creative collaborations, multiplayer games

5. ## Human-robot interaction

   robots which communicate naturally and socially

Open technology development
for interactive technologies

1. ## Open platforms

   an open platform can act as a coordinating hub/focus for projects across a future programme, as well as providing increased agility/flexibility, increased innovation potential, reduced development risks, and wider community access

2. ## Open and shared resources

   build an open, distributed, secure, and interoperable infrastructure

3. ## Open multilingual & multimodal architectures

   Typical target platform for exploiting the above open environments – multilingual, multimodal, distributed, open-architecture, conversational middleware platform

4. ## Reproducible research

ROCKIT
Roadmap for Conversational Interaction Technologies

Bridge the gap between research & innovation
Focus on SMEs

In negotiation, will be launched at ICT-2013 (Nov 2013, Vilnius)

- Develop a research and innovation agenda

- Community building across research & innovation in conversational interaction technologies

- Develop application scenarios & testbeds

- Recommendations for an open platform

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