Ambient Functionality – Use Cases

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Everyday applications

Physical browsing
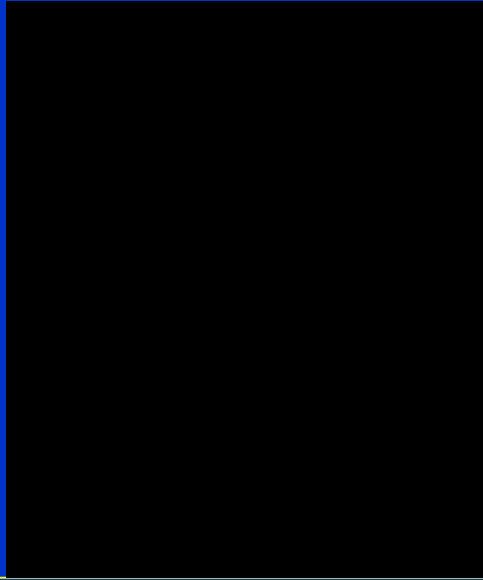
MIMOSA vision

- ❖ **Personal mobile devices** act as the principal gateway to ambient intelligence
- ❖ Mobile devices provide trusted intelligent user interface and a wireless gateway to sensors, networks of sensors, local networks and the Internet
- ❖ **The user feels and really is in control of Ambient Intelligence.**
- ❖ Ambient intelligence applications help people in their everyday life: the applications are useful, usable, reliable, and ethical issues have been taken into account in the design.

MIMOSA approach

MIMOSA application fields

Sports

Housing

Fitness

Health care

Four basic phenomena

- ❖ Physical selection – a new user interface paradigm
- ❖ Utilising wireless sensor measurements
- ❖ Context-awareness
- ❖ Setting up and taking applications into use

Setting up and taking applications into use

- ❖ Effortless use is a crucial user requirement
- ❖ Ease of getting application into use and reusing it
- ❖ Sensors and tags need to be introduced to the application
- ❖ Co-existence of different applications

- ❖ Context tags can be utilised to fluently activate situationally relevant services
  1. Download an application
  2. Activate an application
  3. Change application mode

Thank you!

More information:

http://www.mimosa-fp6.com

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Physical selection

1. Touch
2. Point
3. Scan

   ❖ User can select functions embedded in physical objects
   ❖ Based on tags
   ❖ Reading and writing
   ❖ Personal tags vs. public tags - privacy

Utilising wireless sensor measurements

1. A single reading
2. Reading periodically
3. Reading and storing for future use
4. Establishing a two-way connection

- ❖ User or application initiated
- ❖ Division of intelligence on phone and in smart sensors
- ❖ Adequate reliability in the intended use
- ❖ From measurements to meaningful user feedback

Context-awareness

1. Identifying the context
2. Maintaining user profiles
3. Combining context and user profile to provide situationally relevant services, functions and information to the user

- ❖ Identifying context from environmental measurements is a major challenge
- ❖ Tag-based context-awareness alone provides many possibilities, keeping the user in control
- ❖ Tag reading distance is essential context information