

Intelligent Software Agents

☆ Introduction :

- *what are agents*

☆ “To do”

- *agents & Infocities*

☆ Planning



What are software agents?



Vloeberghs Leerstoel 1997-1998

SOFTWARE AGENTS

Prof. Dr. Pattie Maes, Medialab MIT

- http://infoweb.vub.ac.be/~ssel/software_agents.htm
- <http://agents.www.media.mit.edu/groups/agents/publications/>

Prosthetics for the mind?



☆ Overcoming cognitive limitations:

- *lousy memory*
- *only dealing with one thing at a time*
- *probabilities, logic non-intuitive*
- *slow to process large amounts of information*
- ...

☆ Mismatch complexity of our lives & our cognitive abilities

- *too many things to keep track of*
- *information overload*
- *learn & remember more*
- ...

Goal: human + machine = super intelligence

People are good at :

- ☆ judgement
- ☆ understanding
- ☆ reasoning, problem solving
- ☆ creativity

Computers are good at:

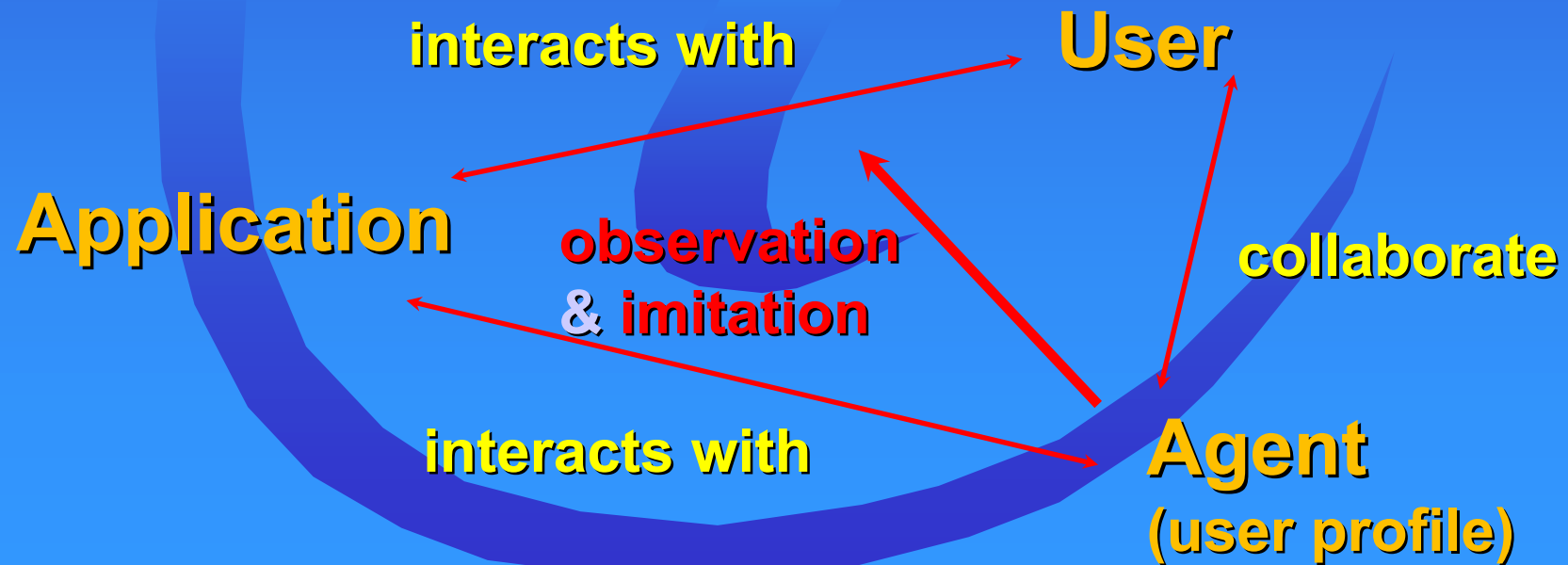
- ☆ remembering lots of facts
- ☆ searching lots of information
- ☆ being in many places at once
- ☆ multi-tasking



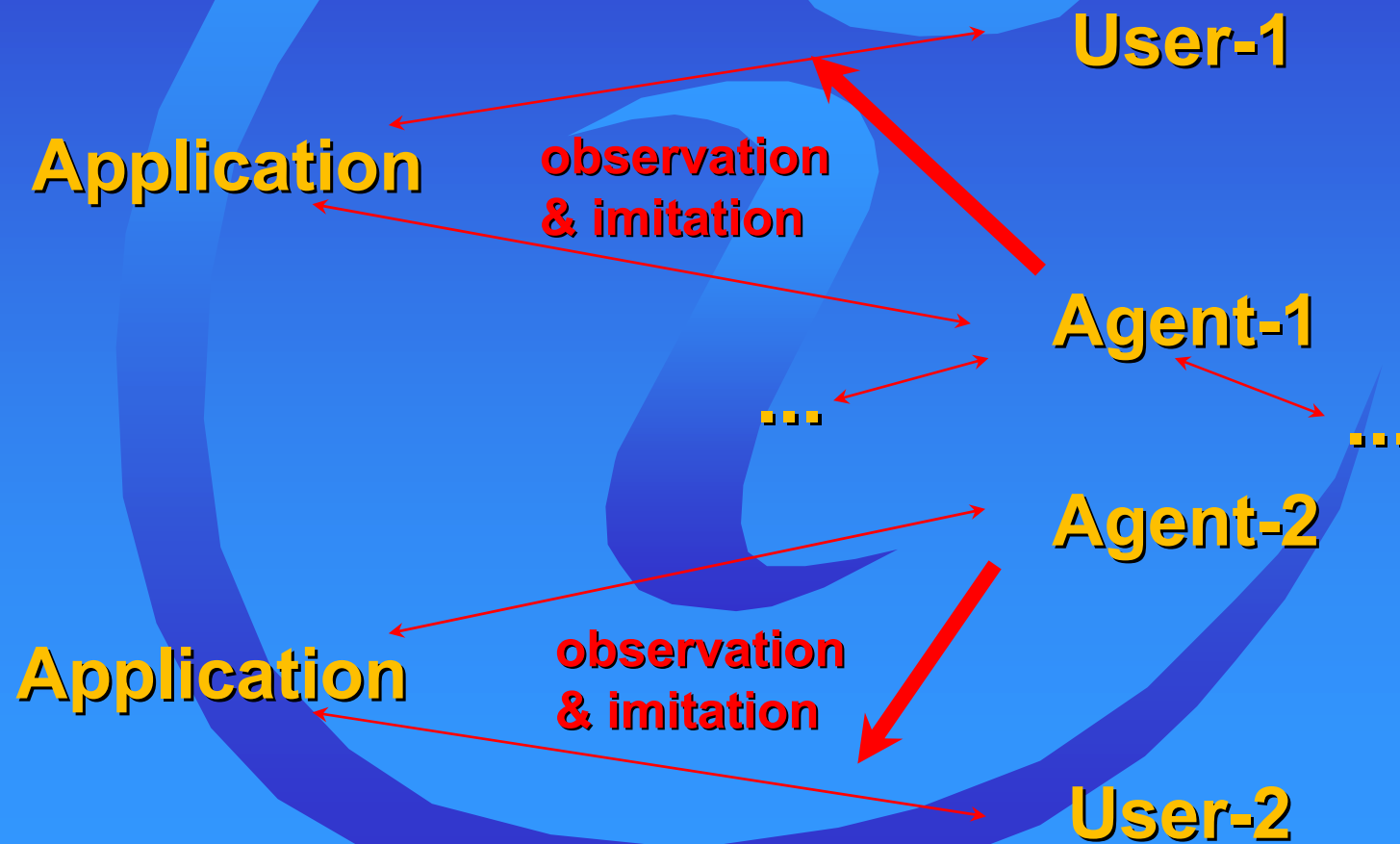
What are software agents?



Software to which a user (fully/partially) delegates a task



Learning from other Agents



Difference with existing end-user software



agents:

- ☆ know the users goals, interests
- ☆ are often continuously running, long-lived
- ☆ take initiative
- ☆ act on behalf of the user

What can agents do for people ?



- ☆ monitor important information
- ☆ automate behavior patterns
- ☆ filter new information
- ☆ remind of old information
- ☆ recommend products and services
- ☆ introduce people with similar interests
- ☆ buy and sell on behalf of user

Antwerp : Agent Experiences



☆ Magica (1997)

- *Multimedia Agents based Interactive Catalogs*
- *Tourism : guided tour / interest tour / search*

☆ Infosond (1998)

- *INFORMATION Services ON Demand*
- *Kiosk with Microsoft agents --> visual + audio contextual help*

☆ Tommi (2000)

- *Tourist Online MultiMedia Information*
- *Wearable agent*

Agents & Infocities



☆ Targetted Result : **Intelligent Agent - Report**

- ***Who can benefit from IA-introduction ?***

- Which cities & wich PCA's are eligible from a "data" point of view
--> Questionnaire Part I

- ***Who can setup IA ?***

- Which technical prerequisites are necessary ?
--> Questionnaire Part II

- ***Is there an IA-future for Infocities ?***

- Yes

Who can benefit ?



☆ Questionnaire Part I

- *Do you have recurring tasks within the PCA*
- *Is it possible to automate these tasks ?*
- *Do you have mostly novice or one-time users ?*
- *Is there a possibility to have user-feedback ?*
- *Is there a possibility to have user-profiling ?*

Who can setup IA ?



☆ Questionnaire Part II

- ***Are you willing to invest in***
 - new and unproved technology ?
 - extra hardware to run agent infrastructure ?
- ***Do you have a programmer available with knowledge***
 - distributed programming ?
 - Multi-threading ?
 - Machine learning techniques (Artificial Intelligence)
 - User profiling techniques
 - Component technology

Is there an IA-future ?



YES

☆ **Some PCA's are definitely eligable IA-candidates from 'data & usertype' point of view**

- *WP 5 : Travel Info*
- *WP 7 : Culture*
- *WP 8 : INFO Square*
- *WP 9 : Digital Town Hall*

Planning



☆ **July 01 1998** : Initiative by Telepolis Antwerpen (TA)

- *Elaboration of IA-report*
- *Internal Distribution*
 - WP-Leaders
 - All member Cities (Validation + follower cities)

☆ **September 30 1998** : Data Collection

- *All filled in report sheets returned to TA*

☆ **October 19-20 1998** : Quarterly Meeting in Antwerp

- *Presentation of Preliminary results*
- *Discussion : strategy - opportunities - etc....*