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Personal Interaction Studio  
Master Level Course in Computer Science, EPFL, Spring 2008



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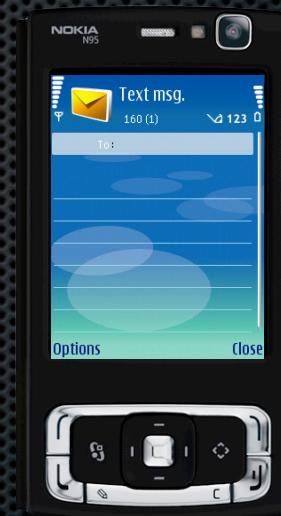
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# Introduction

- Everyone has a phone
  - SMS
  - Bluetooth
- Quick exchange goods
- Sharing information



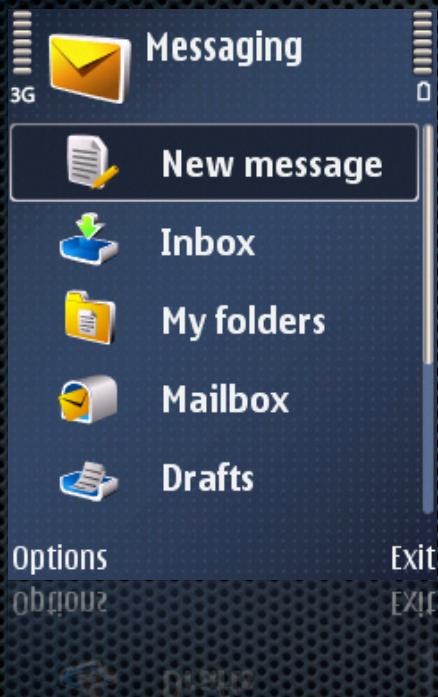
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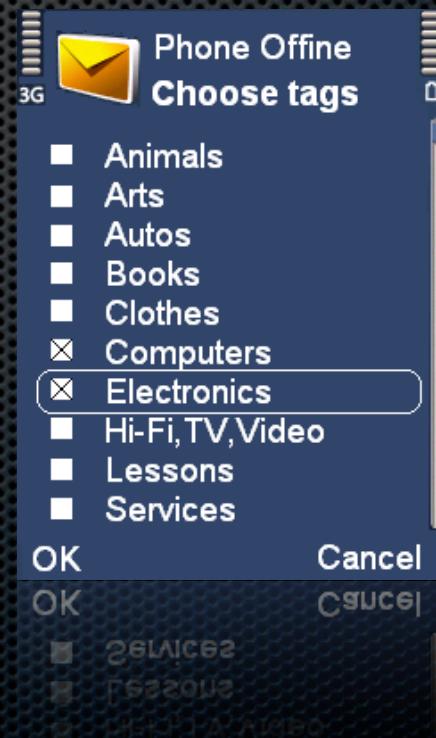
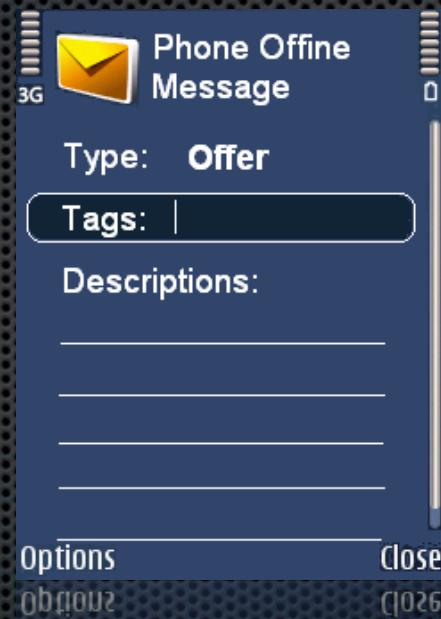
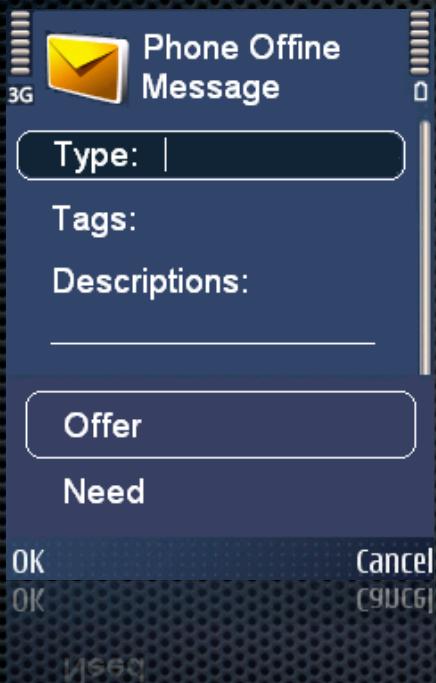
# General view

- We make a diary where you can see all the development and all the problems found and how they have been solved
- MTM application
  - Read, write, modify, delete needs and offers

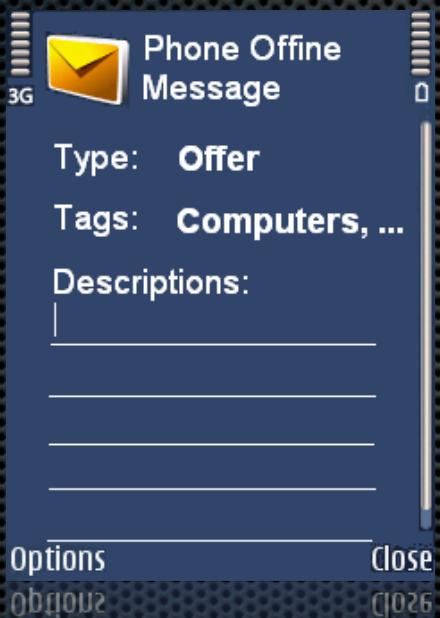
# General view



# General view



# General view



# General view

- Standalone application
  - Search other phones
  - Matching
  - Advises if something is interesting
  - Integrated in the next version

# General view



# Matching algorithm

- Idea of agents
  - Hewitt's Actor Model (Hewitt, 1977) - A Self-contained, interactive and concurrently-executing object, possessing internal state and communication capability
  - Really popular some years ago
  - Can learn, take some decisions
- Uses the tags
  - Try to match with the same tags
  - Available to change the precision in the code [50%]

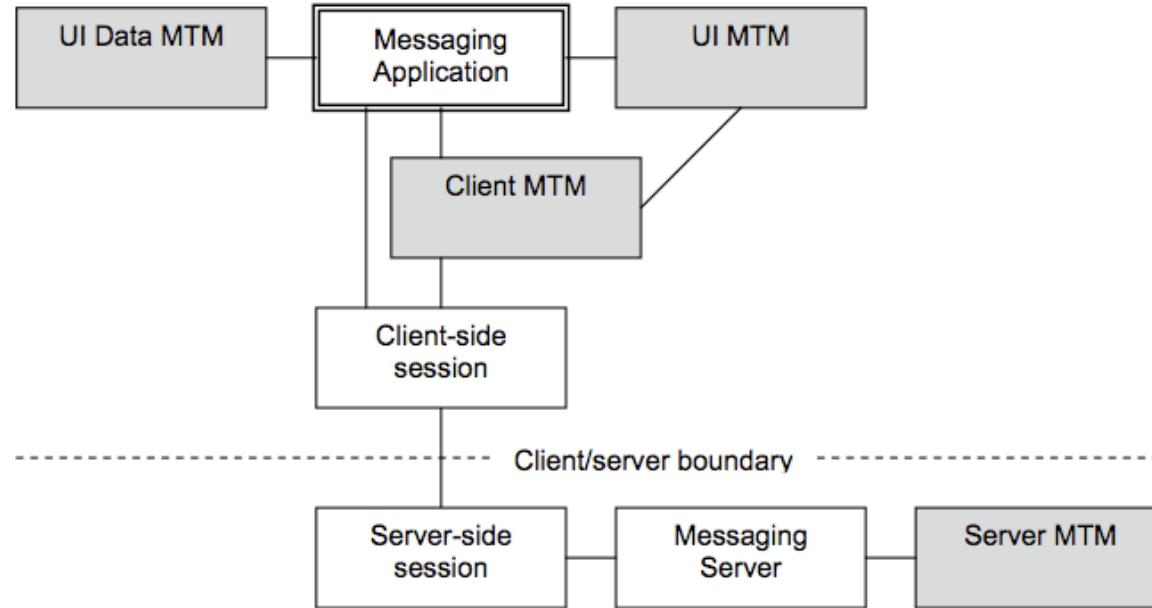
# Matching algorithm

- In a future will use
  - The binary add: tags related will have the same matching
  - Like:
    - *Accommodation*: 300
    - *Room*: 301
    - *Studio*: 302
  - Understand the description
  - Semblance and similarity (used in the web)

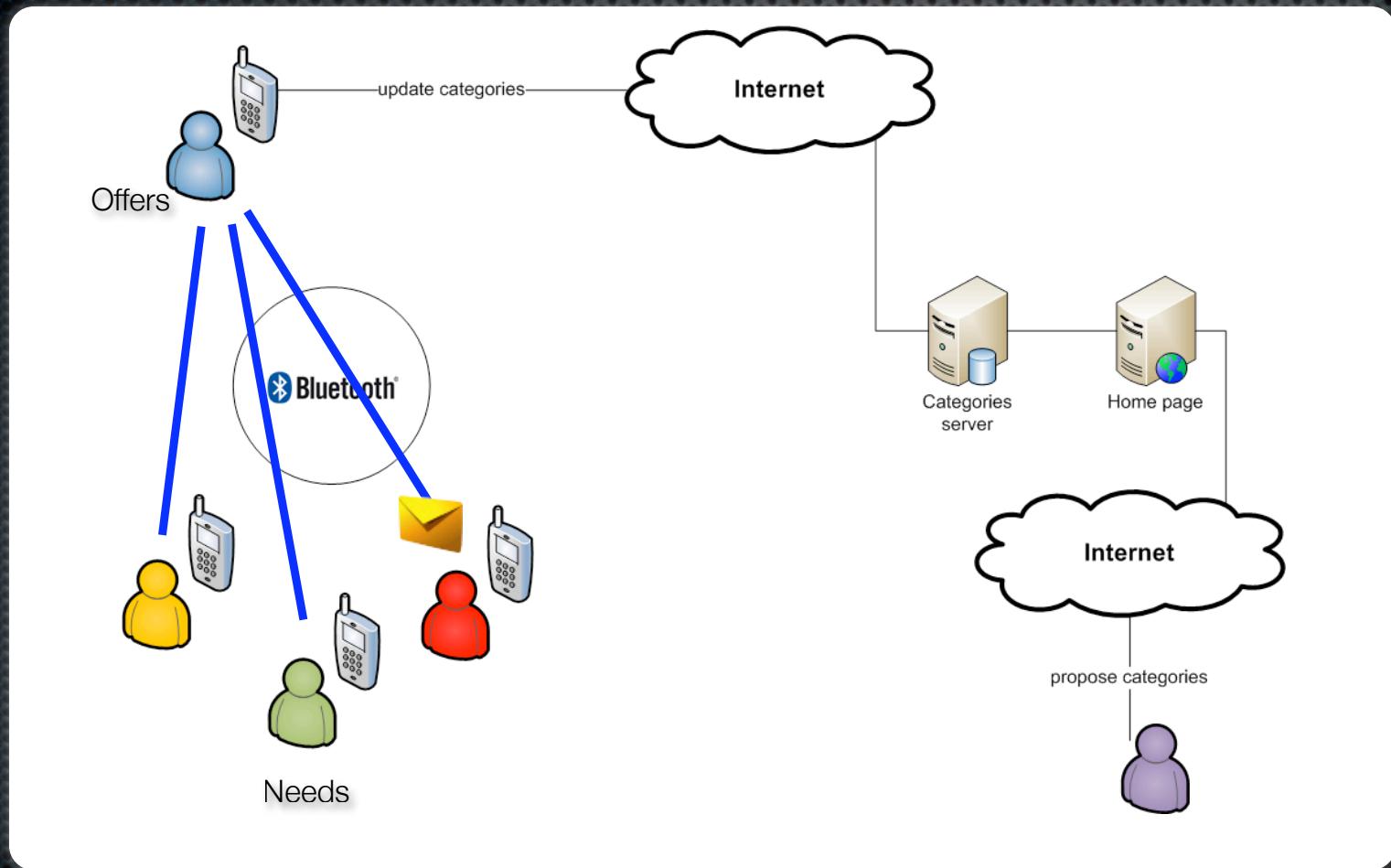
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# Deployment view



# Deployment view



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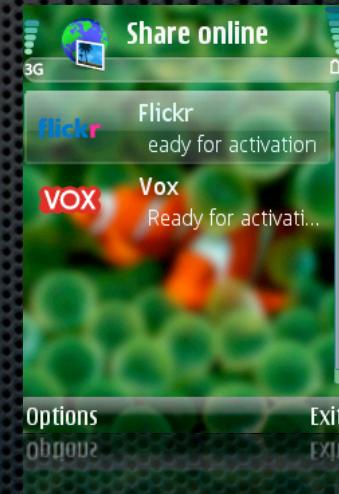
# Innovation

- Quick exchange goods
- New exchange channel
- Not need computer or internet
- Easy to use
- Do all work for you
- Sharing information



# Related work

- ❖ Some forums should do something similar
  - ❖ Not automatic matching
  - ❖ Need of internet and computer
  - ❖ Not quick to add
  - ❖ Learn something



 **homegate.ch**



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# Demonstration

- I live in a house and I want to rent one of my rooms. But I will like to live with someone from EPFL, that's cool!
- I make an offer, but I don't like anyone who call me

# Demonstration

- I decide to make a OFINE message as an offer
- OFINE message
  - Tags: Accommodations; Individual room; Apartment to share
  - Description: 500 CHF/month

# Demonstration

- You have a friend, John E51, that is searching for an apartment because he is so far from EPFL that he want to change.
- You never talk to him because right now is so busy!

# Demonstration

- Your friend after some time to search an apartment decided to make a OFINE message to search. Less work, an really easy
- OFINE message:
  - Tags: Accommodations; Apartment to share
  - Description: cheap!!

# Demonstration

- In the EPFL there is other person, Alex Xpress, that is searching for an apartment next to EPFL
- He works a lot and he also is busy! He doesn't need right now the apartment because he lives somewhere.
- He is searching an studio

# Demonstration

- He decided to send a OFINE message to see if the application helps him without effort
- OFINE message:
  - Tags: Accommodations; Studio
  - Description: beautiful studio next to EPFL

# Demonstration

- Use of 3 phones
  - Send offers (me): 1 phone (N73)
  - Receive offers(John, Alex): 2 phones (E51, Xpress music)

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# PROBLEMS

- Not scanning for a service
  - Solved if we implement in Symbian
  - Only use some type of phones
- Python console bugs
  - Some pipe broken
  - Should be solved using the right service

# To Do

- Spread of BT message
  - Not yet implemented
  - Increase the chance to match
- Modify contact info with the application

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# General assessment

- Quick exchange goods
- Innovative
- Market oriented
- Multiple uses
- Easy to use
- Not internet needed



**Thank you very much**

**Any question?**