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# Faculty Summit 2010

Guarujá, Brasil | May 12 – 14 | In collaboration with FAPESP

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## Supporting Informal Interaction in a Hospital through Impromptu Social Networking

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# Informal Communication in Hospitals

- Hospital Work
  - Intense local mobility
  - Task fragmentation
  - Collaboration and coordination



- Informal Communication used to:
  - Coordinate activities
  - Collaborate with colleagues
  - Access resource

# Informal Communication in Hospitals

- Mobility enables co-located interaction
  - Artificial proximity is not an option for hospital workers

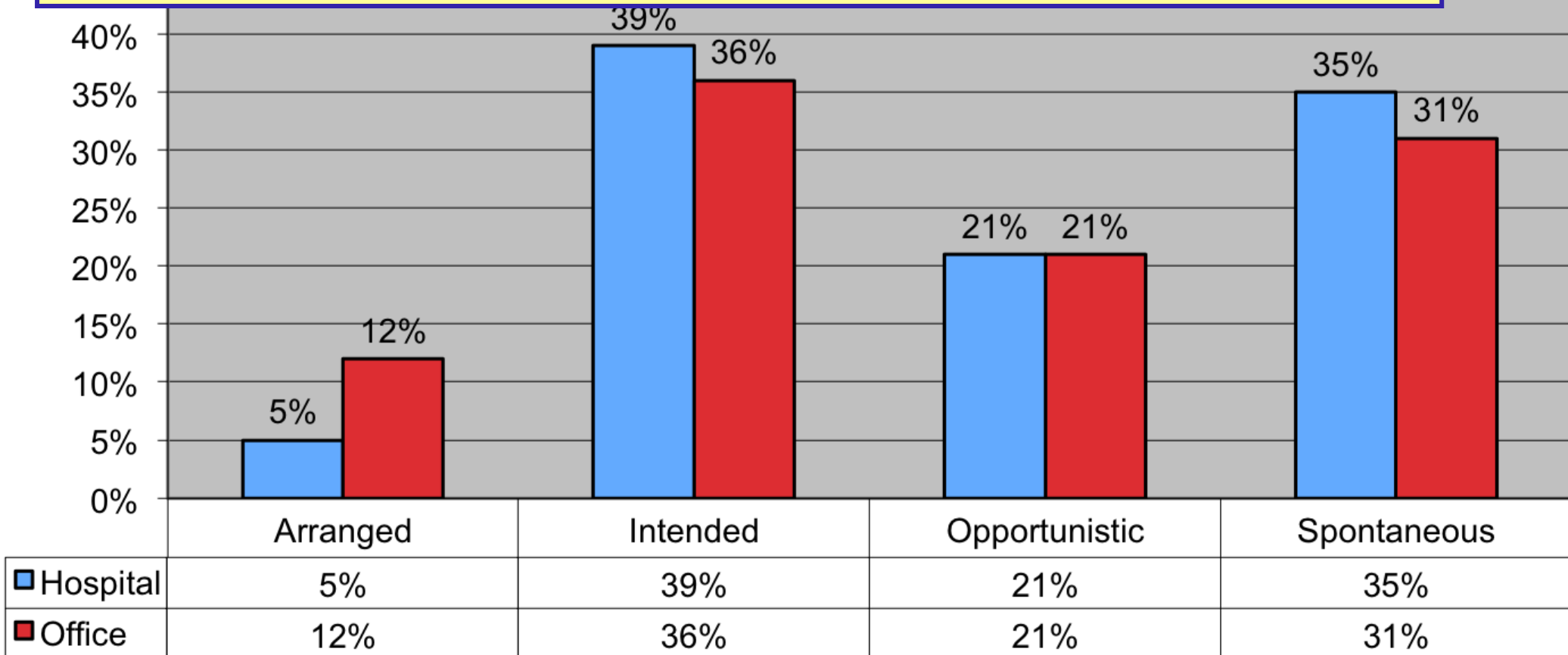


- Collaboration breakdowns
  - Interruption of interactions
  - Information generated during the interaction is not recorded
  - Missed opportunities for collaboration

# Hospital vs. Office Work

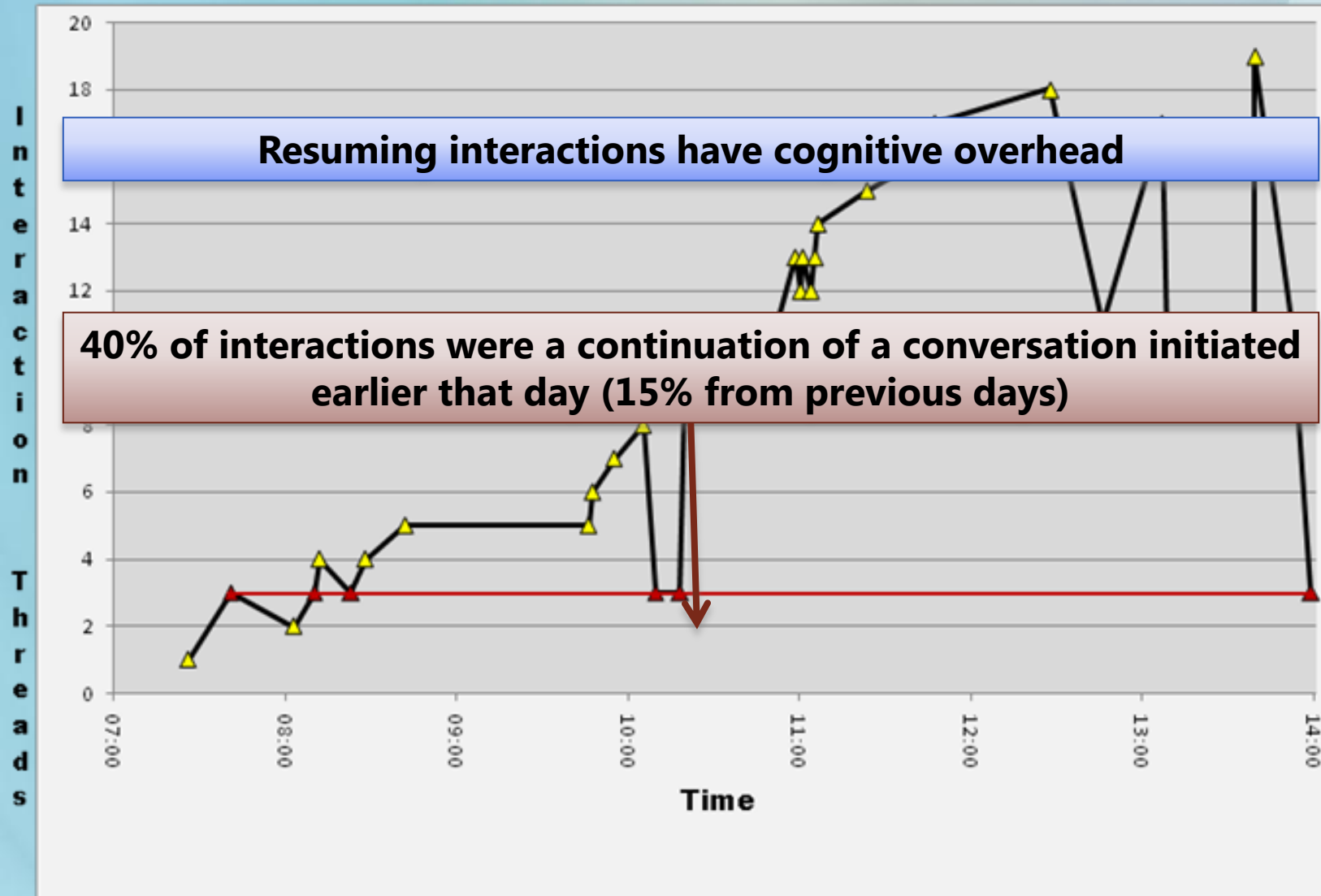
Hospital workers interact almost 50 times per day on average

56% of interactions happen due to opportunistic or spontaneous encounters





# Communication disruptions in hospitals



# Social Networking Sites

- Increasingly being used in work settings to
  - build stronger bonds
  - reach out to new people
  - Caring, climbing and campaigning
- The killer-app for smartphones (MS Kin)
- Initial reports of uses in hospital settings (Twitter in the UK)

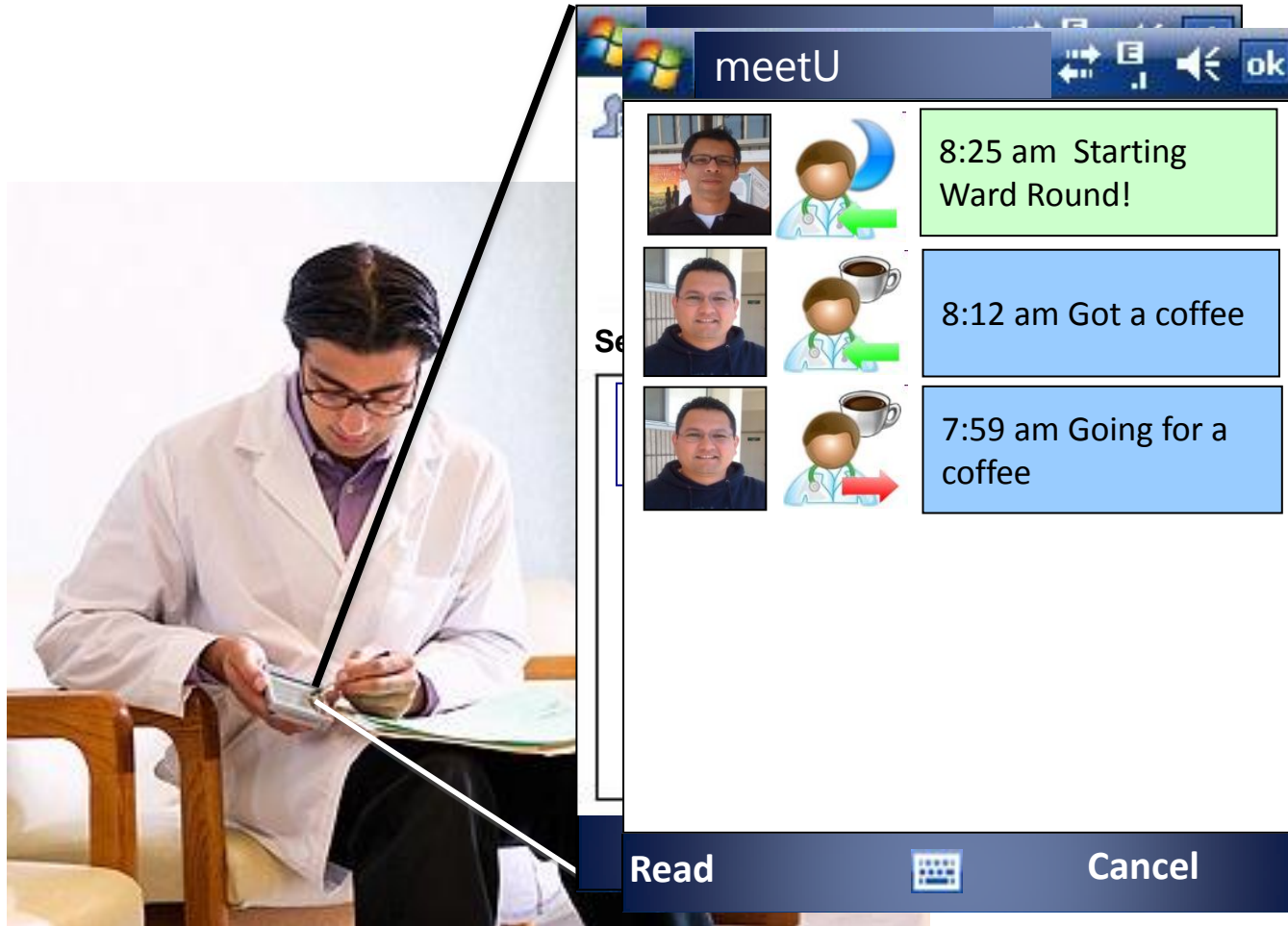


# Scenarios of use

- Medical interns
  - Young, heavy users of mobile phone
  - Constantly on the move and switching activity
  - Short-term stay at the hospital, long hours (up to 32 hour shift)
  - Activity status relevant to colleagues
  - Develop strong bonds with fellow interns and other hospital workers
- Opportunities for computer-mediate social-awareness
- Simplified status updates, including activity recognition and notification



# Scenario 1



# Scenario 2



meetU

My Status

Select S

Update

meetU

9:59 am. Hey! ... Sergio might be interested in a ward change for that day

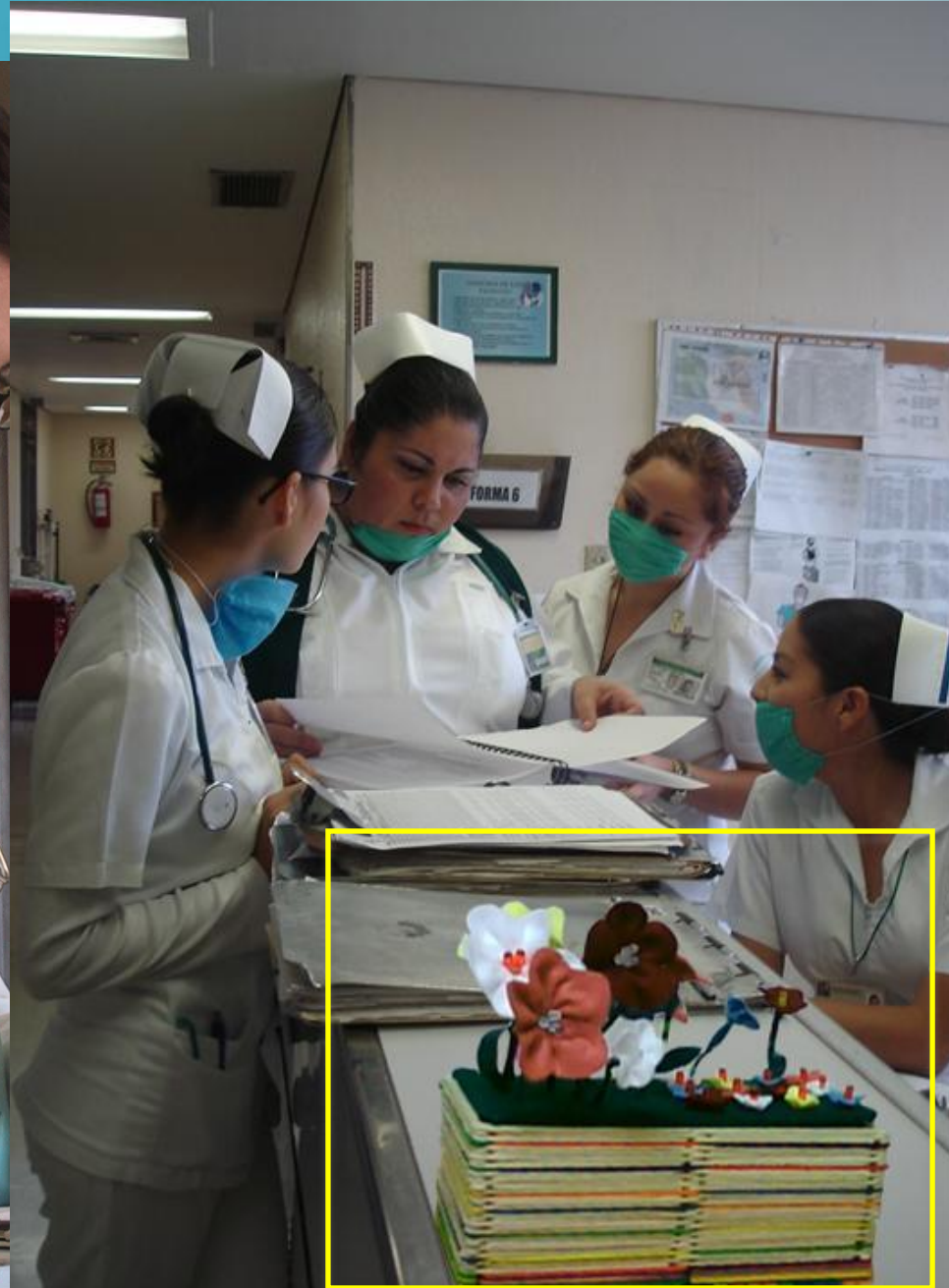
8:25 am. That's too bad .. Are you looking for a ward change?

8:07 am. Sorry to hear that Juan! ...

Read

Cancel

# Scenario 3

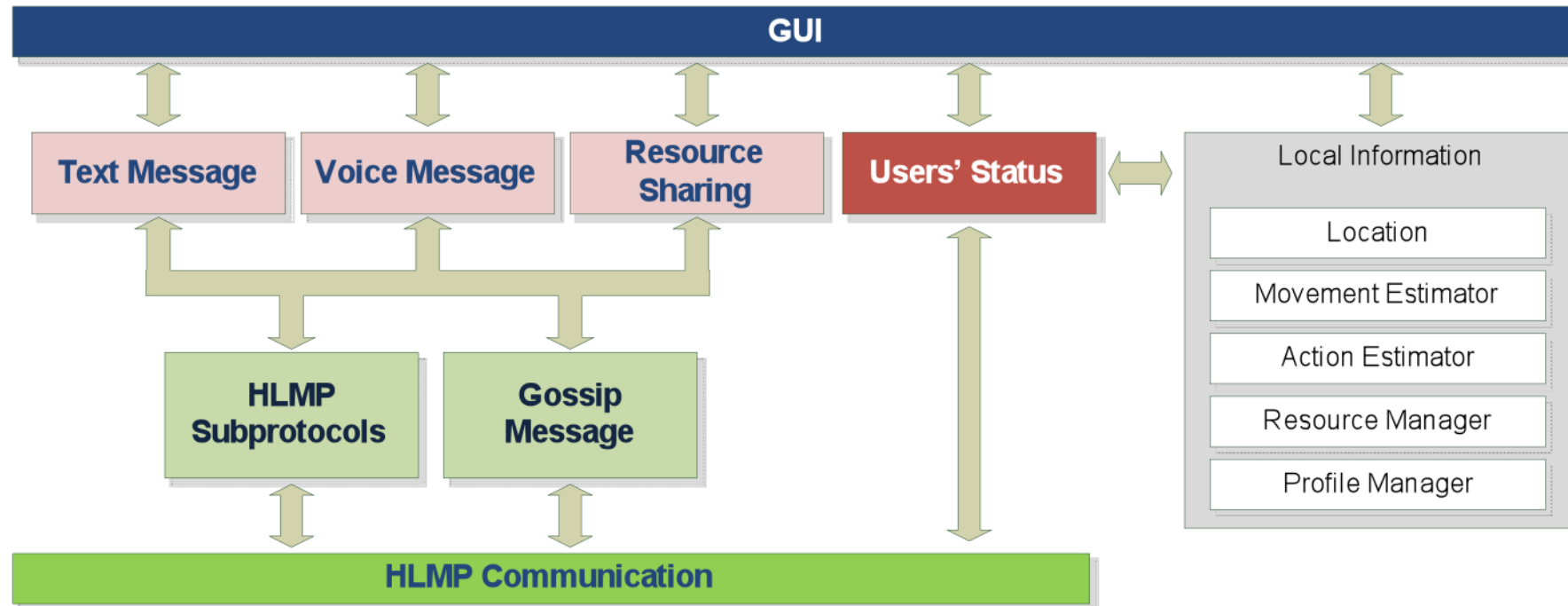


# MeetU

- Builds an Impromptu Social Network
- A MANET-SNS application
- Provides an informal communication channel allowing users to monitor status changes
- Provides interns with a backchannel to formal hospital information exchange
- Provides confidentiality
- Quick update of common activity status
- No need to deploy networking infrastructure
- Can incorporate lightweight activity recognition



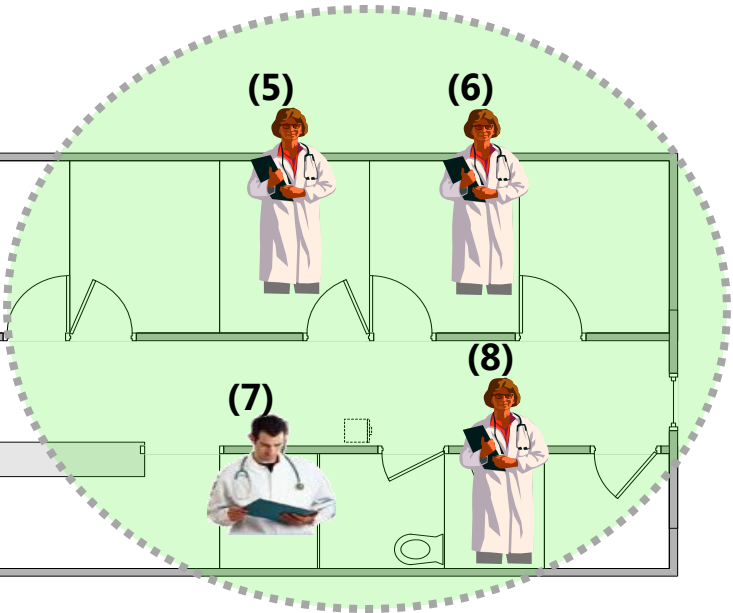
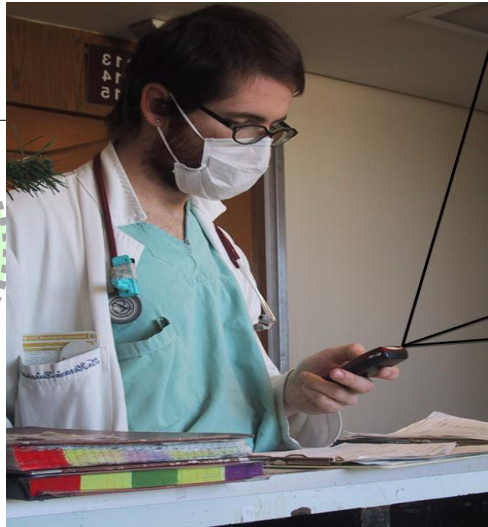
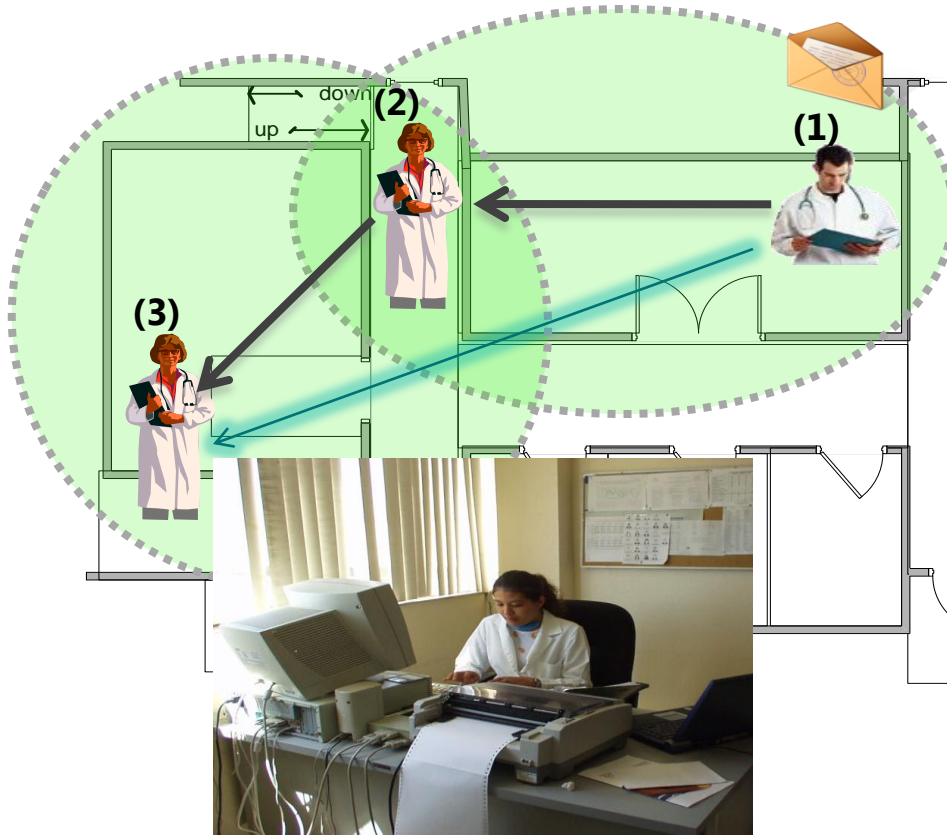
# MeetU Architecture





**Zone A**

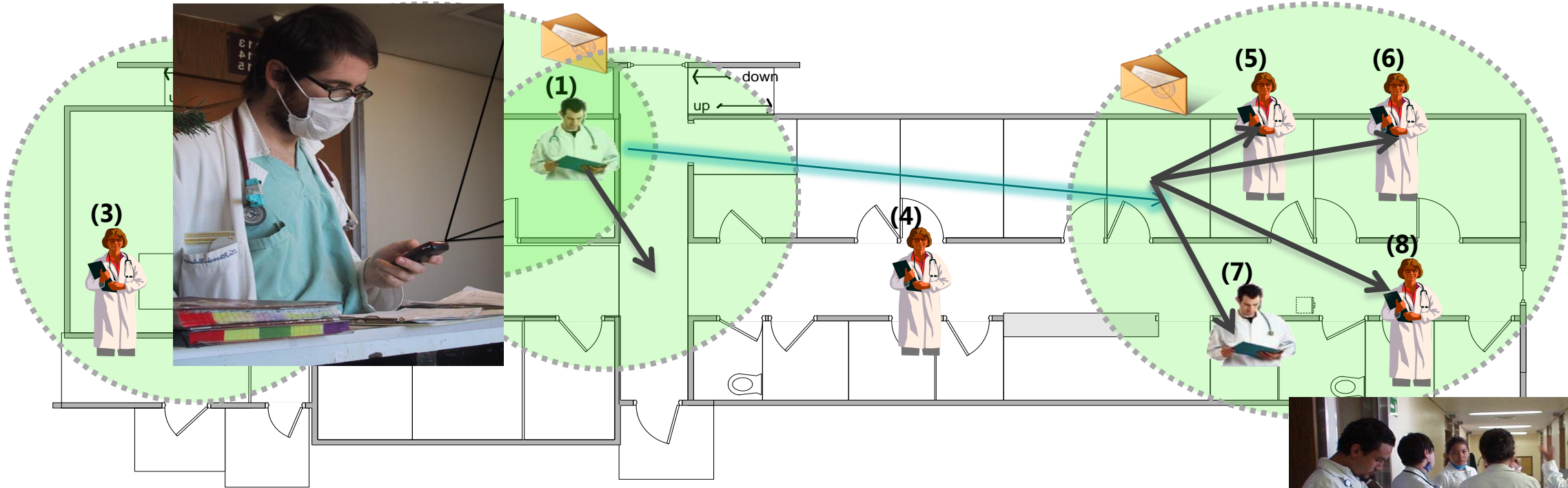
**Zone B**



**HLMP Routing**

**Zone A**

**Zone B**



**HLMP Gossip**

# Preliminary evaluation

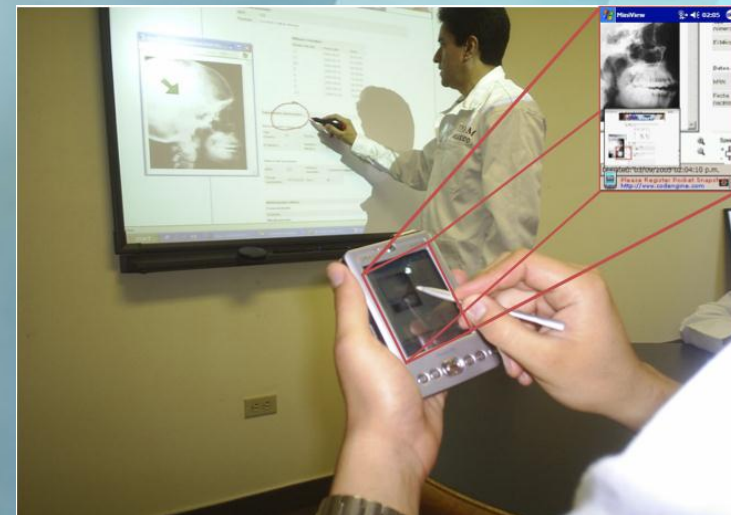
- Focus group
  - Five medical interns
  - Formative evaluation
  - Focused on perceived usefulness
  - Scenario-based evaluation
- Results
  - Scenarios were considered realistic
  - New applications were suggested
  - Privacy concerns
  - ISN seems to support new users of SNS



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*DemoFest: Ad-hoc integration of heterogenous devices to support impromptu interactions*

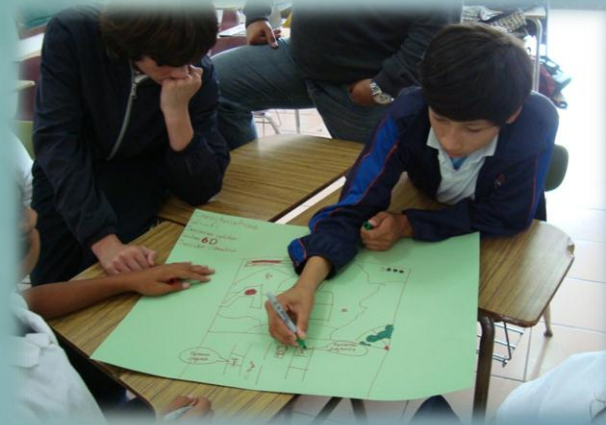




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## *DemoFest: Mobile gaming and social networking to promote healthy habits among teenager*





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