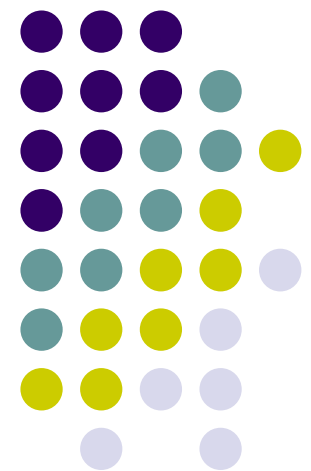


# CS 403x – Using Proximity and Homophily to Connect Attendees in a Mobile Social Network

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# Introduction

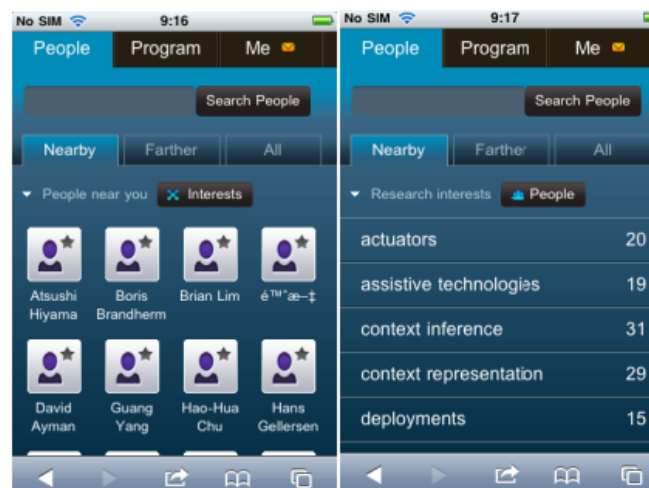
- Problem: it's difficult to establish connections at conferences
  - Business cards
  - Interactions
- Importance?
  - Networking
  - Collaboration





# Solution

- Find & Connect: app that connects people in the same conference
  - Faster exchange of information
  - Access to people with similar interests
  - Tracks what sessions you attend through RFID tags



# Vision



- How is it useful?
  - View persons virtual business card
  - Access to info of people you didn't meet personally
  - Once you add your information anyone can add you as a contact
- No more printed business cards
  - Saves time and money





## Related Work

- Probability of friendship inversely proportional to geographical distance
- Bluetooth, RFID, GPS, and location data
  - used to predict friends based on movement behaviors

TABLE II. REASONS FOR ADDING FRIENDS/CONTACTS FROM SURVEY BEFORE UBICOMP 2011 CONFERENCE AND FROM FIND & CONNECT AT UBICOMP 2011 CONFERENCE

Reason for adding friends/contacts	Survey	Find & Connect	Rank (survey)	Rank (Find & Connect)
Encountered before	59%	37%	2	2
Common contacts	48%	12%	3	5
Common research interests	24%	35%	5	3
Common sessions attended	7%	24%	7	4
Know each other in real life	69%	39%	1	1
Know each other online	34%	9%	4	6
Added each other as phone contact	21%	4%	6	7



# Methodology



- Homophily and Physical Proximity used to suggest contacts
  - Uses RFID tags
  - App is a website (Ubiquitous)
  - User can browse profiles and share information with other users
  - Can send messages after adding someone



# Tradeoffs

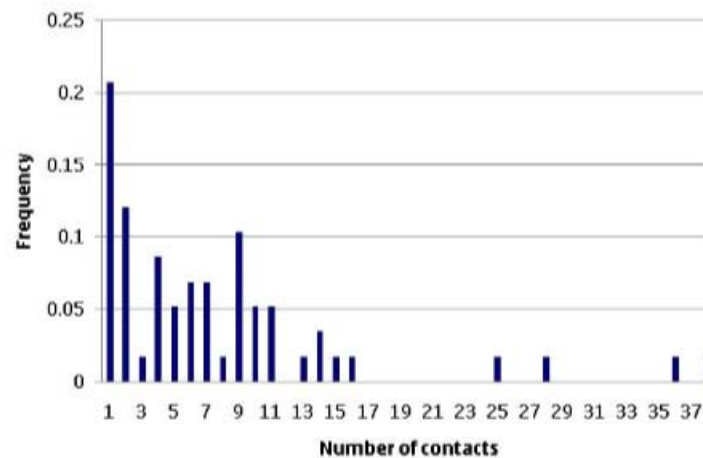
- Assumption: all people going to same conference
- RFID badges are needed
  - GPS would be easier but not accurate enough
- UI did not allow for easy access to contact recommendations





# Results

- Majority of people had 1-2 contacts
  - Less than expect
  - Too busy to look up profiles
  - Already exchanging business cards



**Figure 8. Degree distribution in the contacts network.**





# Conclusion

- Not a good solution
  - Was effective when people took the time to use it as intended
- Future Works:
  - UI improvements
  - Making actual app instead of website
  - Use phone's capabilities (NFC)