Department of Computer Science Institute for System Architecture, Chair for Computer Networks

# Application Development for Mobile and Ubiquitous Computing

SocializeMe Final Presentation

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- Let people find a companion nearby their current position
- Might be friends, friends of friends or people with common interests / plans
- Base on most reliable social data source Facebook social graph



- Browser-based application
  - HTML5
  - mobile-first
  - scalable and flexible
- Lightweight server-side
  - Facebook Graph API data temporary Storage
  - MySQL database



#### Showcase: Screens and Use Cases

- Login via Facebook
- Configure your visible data
- Search for people near you based on interests and network circles
- Discover friends and contact them via Facebook
- Check them out on the map



#### Use Case: Login / Authorization

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- Let Facebook check whether a user is ,connected' (logged in + authorized for this app)
- Login button opens new window to input facebook credentials
- Check and proceed if successful. User basic data is gathered from facebook, stored locally and automatically sent to server's temporary database



## Screen: Login via Facebook









## Use Case: Configure your data

- User chooses to be visible or invisible to others
- User changes his/her nickname
- User selects and updates the criteria he can be found by others:
  - Likes
  - Events
  - Friends
- User selects and updates what is shown to other users:
  - FB name
  - Photo
  - Events
  - Mutual friends
  - Likes



# Screen: Configure your data







#### Use Case: Search for users nearby

- Select network circle:
  - Friends
  - Friends of friends
  - All
- Select the distance
- Select criteria to include:
  - attends similar events
  - likes similar bands
  - likes similar movies
- Php script returns a list of users based on the search criteria with their visible information
- Users nearby are visible on the map (marked accordingly) and in the See user list Screen



#### Screen: Search for people near you









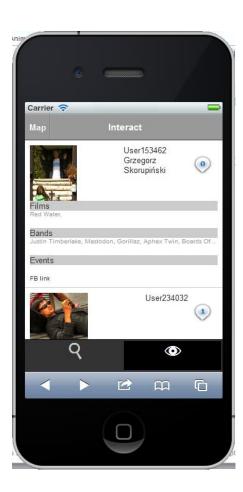
#### Use Case: Look at people nearby

- On the 'See' Screen, the list of users is available. Upon clicking, the details are shown for each item
- On the map, the user can see markers for position of found users
- User can toggle markers on/off
- Interactive update of user position and of found results: every 15 seconds



#### Screen: See the list of found users







### Screen: See the map of found users







- Live localization of a user and update on others
  - HTML5 navigator.geolocation.watchPosition method
  - Re-requesting other users positions
- Disconnections
  - Updated data will be automatically re-requested after next period of time
  - User will get information when his request cannot be executed
- Adaptability and flexibility: work on multiple types of devices and heterogeneous platforms
  - Provided by Lungo Mobile Framework
- Ease of use
  - Menus are not too complex
  - Again Lungo Mobile Framework



#### Cotributions and Limitations

- Adaptable mobile-first Web application using the new features of HTML5
- Integration with Facebook
- Localization services and live update

#### Some limitations:

- Updating of positions and new search requests sent to the user, response times and liveness of the application
- Ease of use: displaying the data in a convenient way, lots of info



#### Experiences and lessons learned

- Geolocalization, Facebook Graph and Google Maps have Javascript APIs working well on various platforms
- Even with the framework used, it is hard to make things work as it should for many platforms
- It is hard to choose between clarity and usability on mobile devices