iAide

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Goal

Research querstion

- What would be necessary so that the users of smart-phones would access the web more often?
- How can access to the web via a mobile device integrate into an average user's daily activities?

Hypothesis

- Mobile devices today are not that user-friendly
    - Search: difficult to type, gives popular results instead of contextually relevant ones
    - Applications: same goal spread across multiple applications
    - Context-aware is necessary
- If a device can be more user-friendly → it will be more integrated to people's everyday life

Introduction

- Designing an experiment
  - To limit the scope of the project we chose only a café setting
  - Integrate all information and tasks related to a café setting into one application
    1. What kind of information do people want?
    2. How can a device be more contextually-aware in order to provide that information?
    3. How should that information be presented to the user?

Introduction

- Process
  - Evaluate existing relevant applications – draw inspiration
  - Interview users to learn what kind of information they want in our setting
    - Prioritize the information
    - Categorize the information
  - Develop prototypes and expose them to user-testing

Existing applications

Transport

The meta-task: user wants to go somewhere

Trafikanten and TaxiNå does not help the user in going somewhere. They only show transport options nearby.

Google Maps is the only application that allows the user input his/her destination.

Existing applications

Point-of-interest

The meta task: user is interested in finding something to do nearby

These apps are good at suggesting nearby points of interests, but they should also take the user's situation into account.

Eg. if it is approaching dinner time, the POI applications should prioritize restaurants, and such and deprioritize places which have closed.

Existing applications

Contacts

The meta task: keep updated on what's happening in a user's social network

Facebook should take location into consideration, and prioritize nearby contacts.

Meebo unifies all the user's chat accounts.

Prototyping

- Iterative process
    1. Understanding users
    2. Make a prototype
    3. User testing
    4. Evaluation

Prototyping

- Prerequisites
  - Effectiveness
  - Efficiency
  - Safety
  - Utility
  - Learnability
  - Memorability

Iteration 1

- Users: We used ourselves as the user-group in this iteration

Iteration 1

- Interviews: content
  - We asked eachother what kind of information we were interested in when in our previously defined setting

  - Location (info about the current café – location aware):
    - Café's contact info
    - Reviews
    - Info about coffee
  - People (info about the people accompaying the user – social aware):
    - Latest SMS messages
    - Recent calls
    - Status updates on social netwoks
    - Richer media
  - Transportation
    - Transport options (public transport, taxi, maps)

Iteration 1
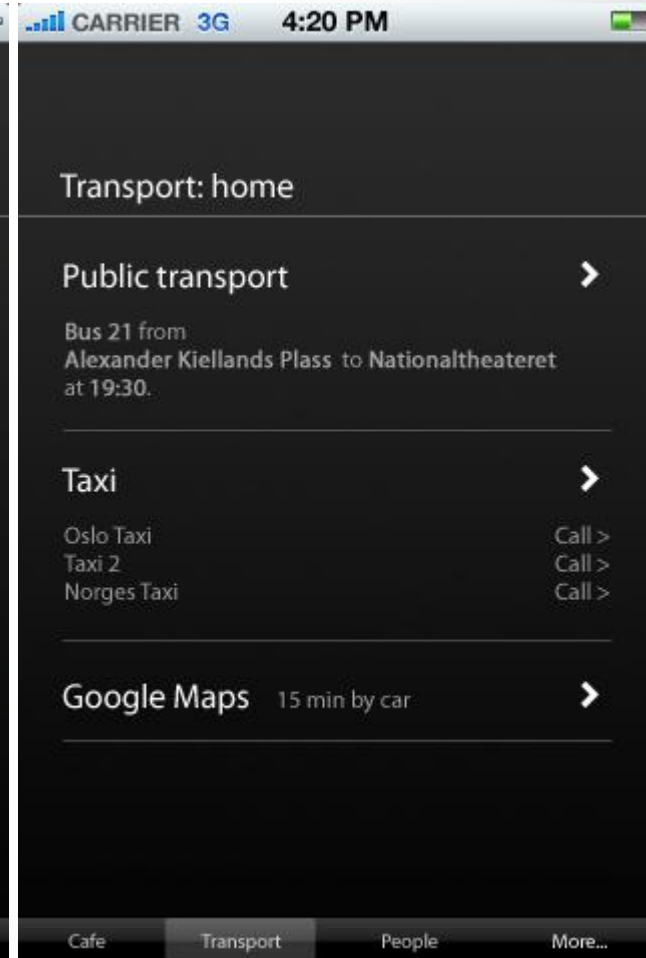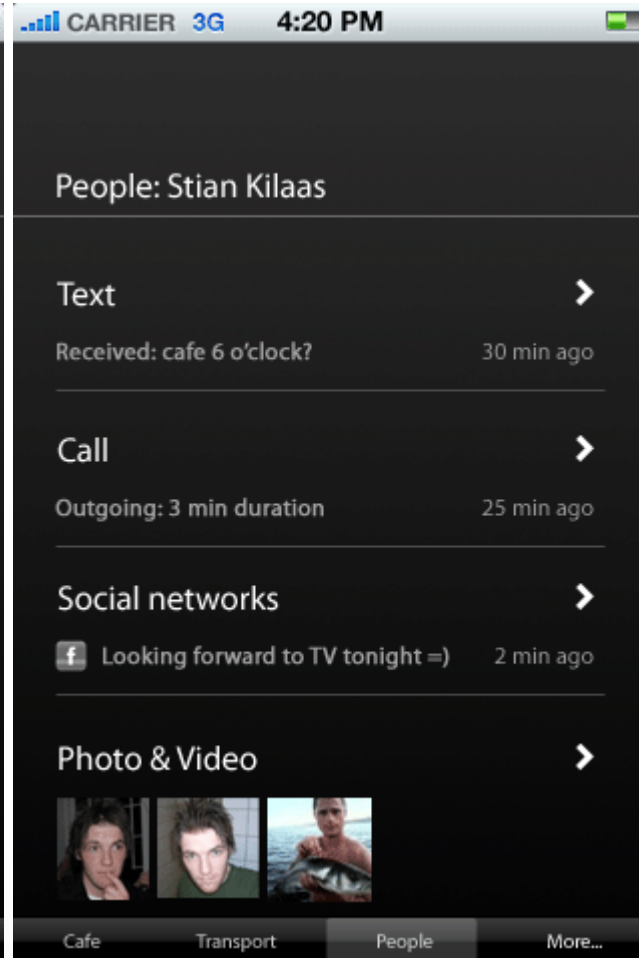
Safety
Learnability
Memorability
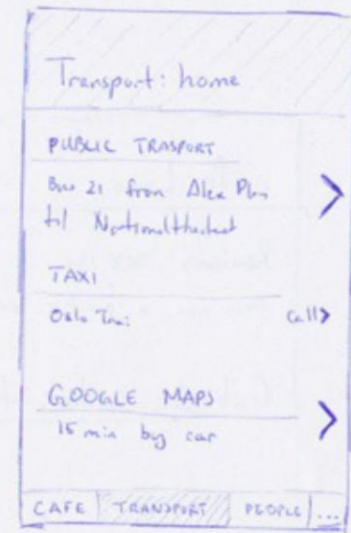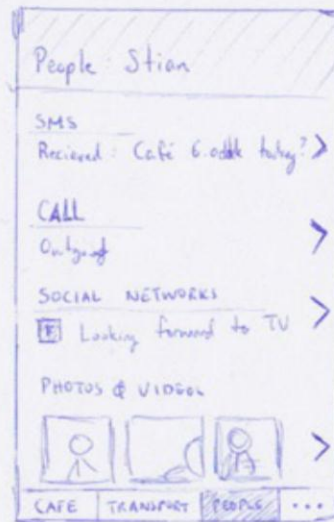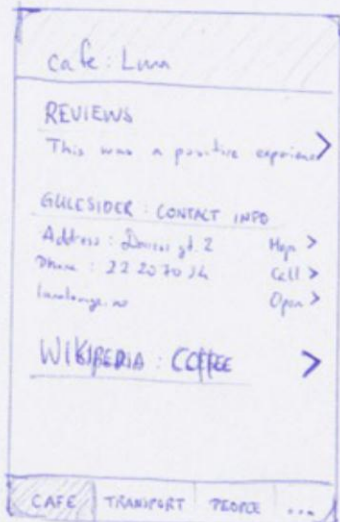
Iteration 1

Safety
Learnability
Memorability

Iteration 1

Safety
Learnability
Memorability

Iteration 1

- User testing: naturalistic usability testing

Iteration 1

- Evaluation
  - Location:
    - The café contact info was not very interesting when we were already there
    - Reading about coffee is not very social and would probably not be used
    - Reviews were interesting
  - People:
    - The info needs to be more centralized, eg. SMS, MSN, Facebook, call history, etc. needs to be centralized into one conversation view
    - There should be an easy way to create events with other iAide users, instead of having to send text messages back and forth.
    - Suggest later activity
  - Transport:
    - It should only show the closest taxi stations instead of taxi companies

Iteration 2

- Focus on information architecture
- Use results from this iteration to change the prototype's content, and then test it in the next iteration
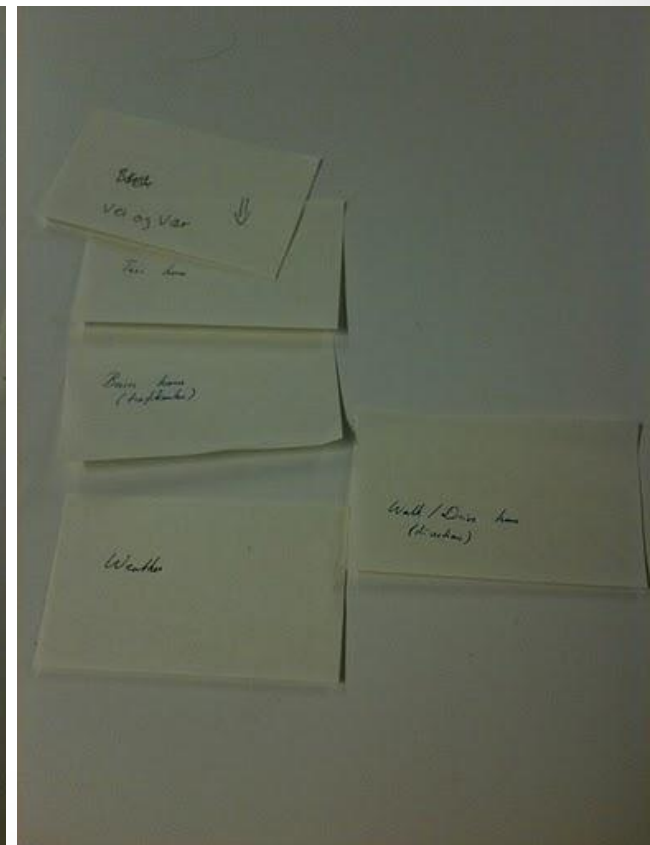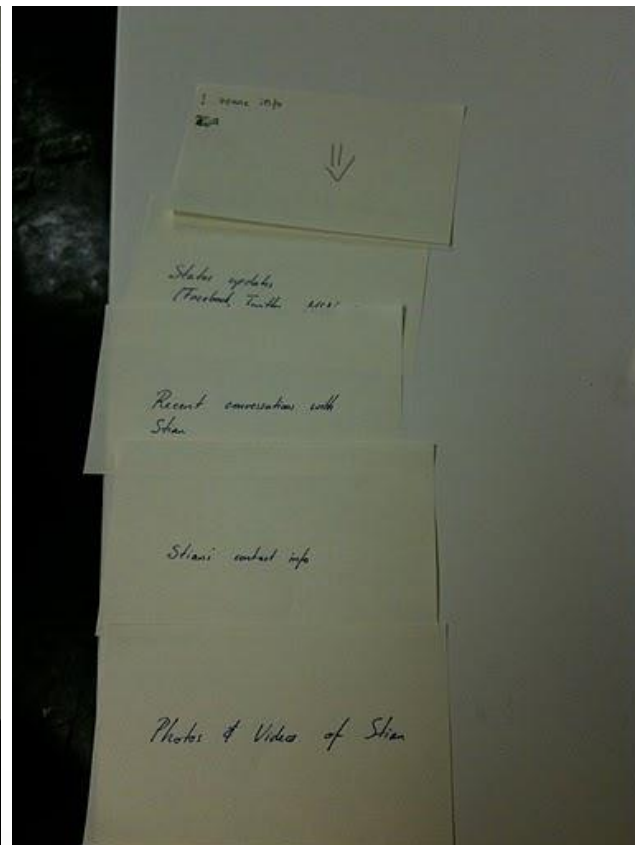
Iteration 2

- User group: iPhone owners

- 5 users: from Jacob Nielsen's article we decided to only test with 5 users

- Personas: we wanted to select the extremes from this group – one persona for each segment of this group

  1. Computer science student (21 years old)
  2. Middle-aged emplyed academic (50 years old)
  3. High-school teenager (17 years old)
  4. Middle-class working man (27 years old)
 5. Housemother (35 years old)
  - Expert

Iteration 2

- We asked the test subject to imagine him-/herself at our café setting
- Asked them what they would use their device for
- Asked them to write each idea they on a seperate post-it note so that they could sort them by relevance later
- Asked them to group post-it notes by what they felt were related with each other
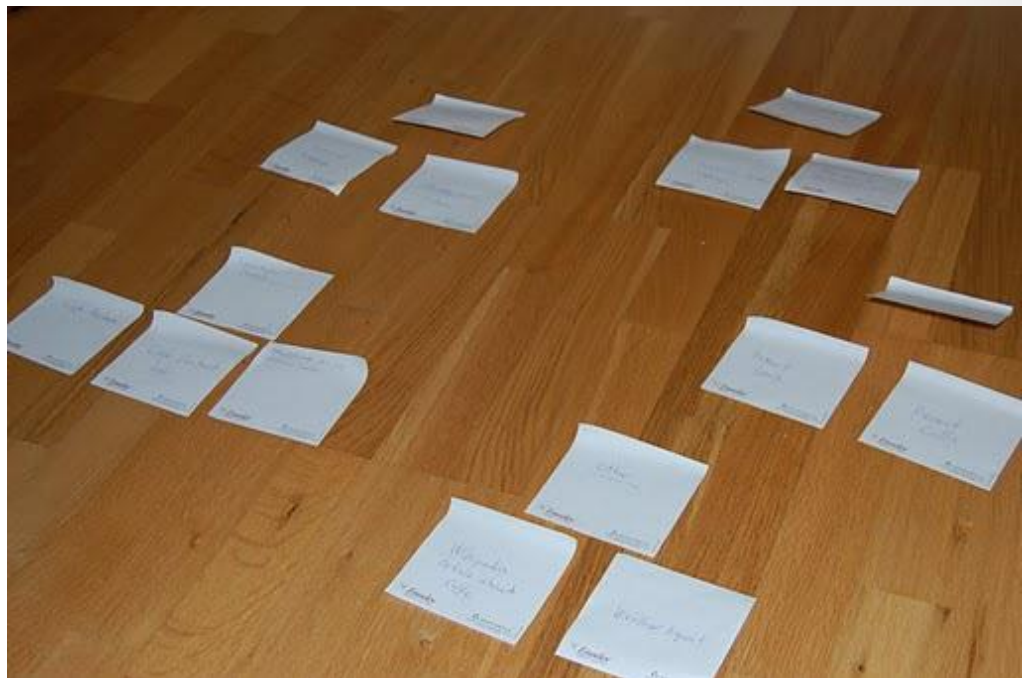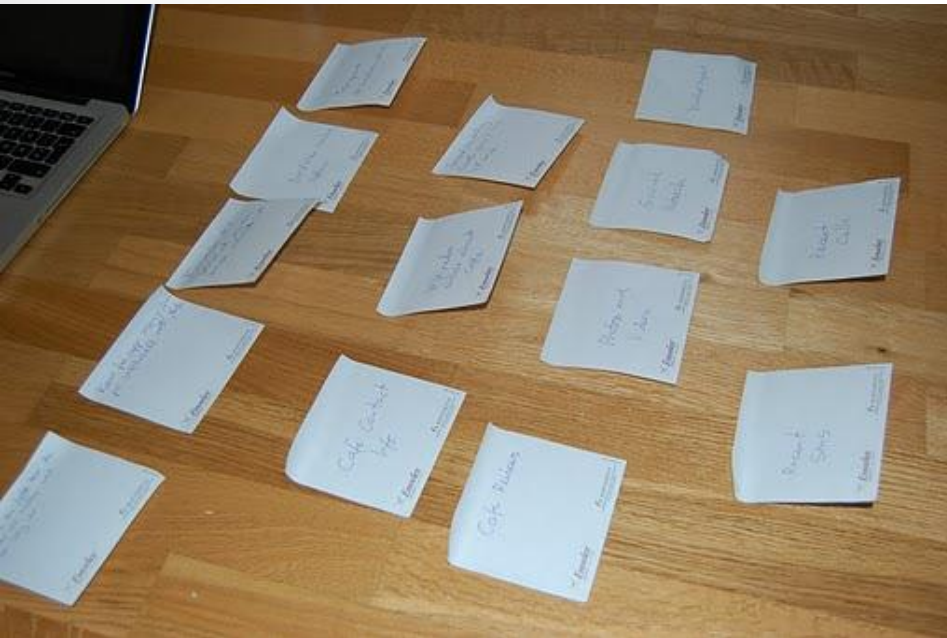
Iteration 2

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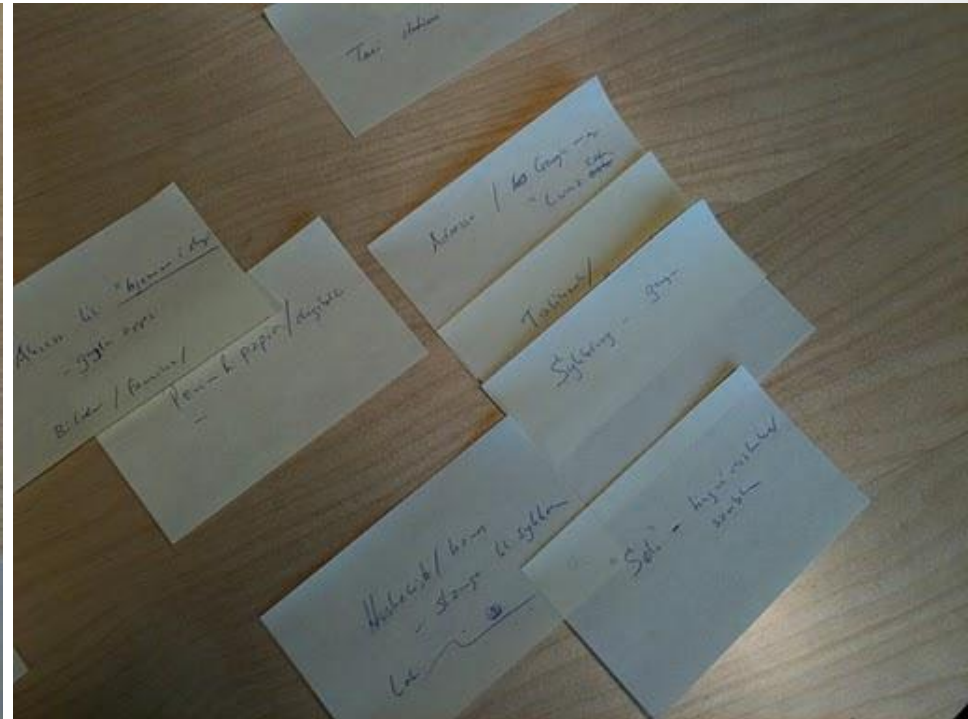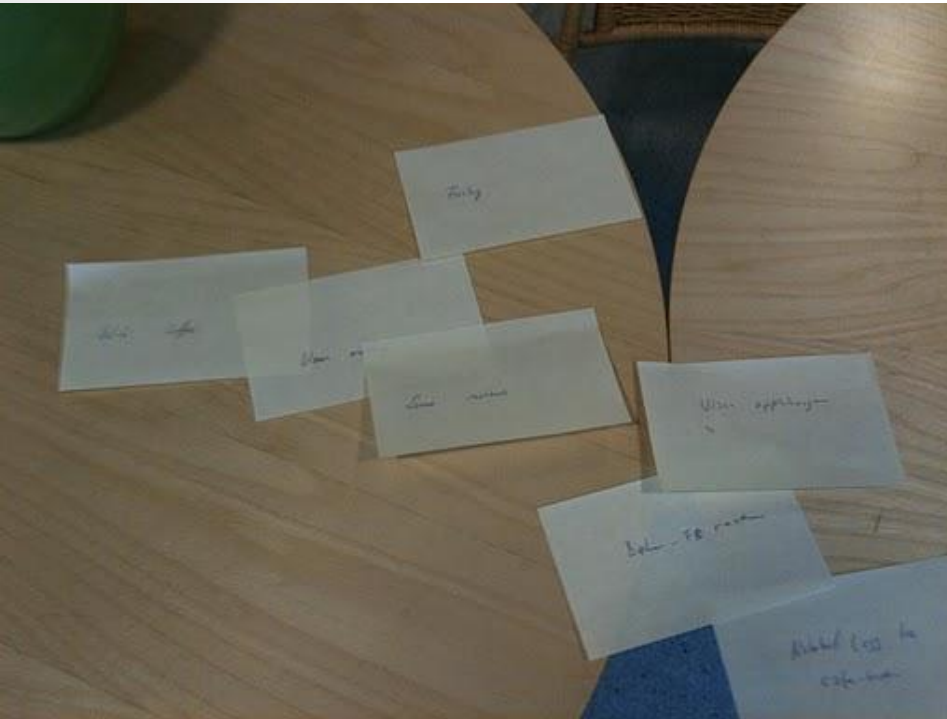
Iteration 2

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- Results
  - o Our assumptions were quite far from reality of the average user
  - o Alot of what we deemed relevant our test subjects did not
  - o They were more interested in transport options and what to do next
  - o They would probably not use their phones while at the café as that is unsocial
  - o People from the field of computer science had other preferences than the rest – these people never said explicitly that they would not use their phones during the cafe visit

Iteration 2

- Conclusion
  - Transport options seemed to be the most interesting
  - We have chosen the wrong setting
  - Because of these eye-opening results, we realized that we hade made a major mistake. We had put too much weight in our assumptions, it never occurd to us that normal people wouldn't use a phone while at a café.
  - We were unsure as to what to do: should we start our project from scratch and ask the users which setting would be relevant first? Or should we continue with our café setting?
  - Because we were approaching the deadline, we chose something in between; skip to next iteration with new setting and content

Iteration 3
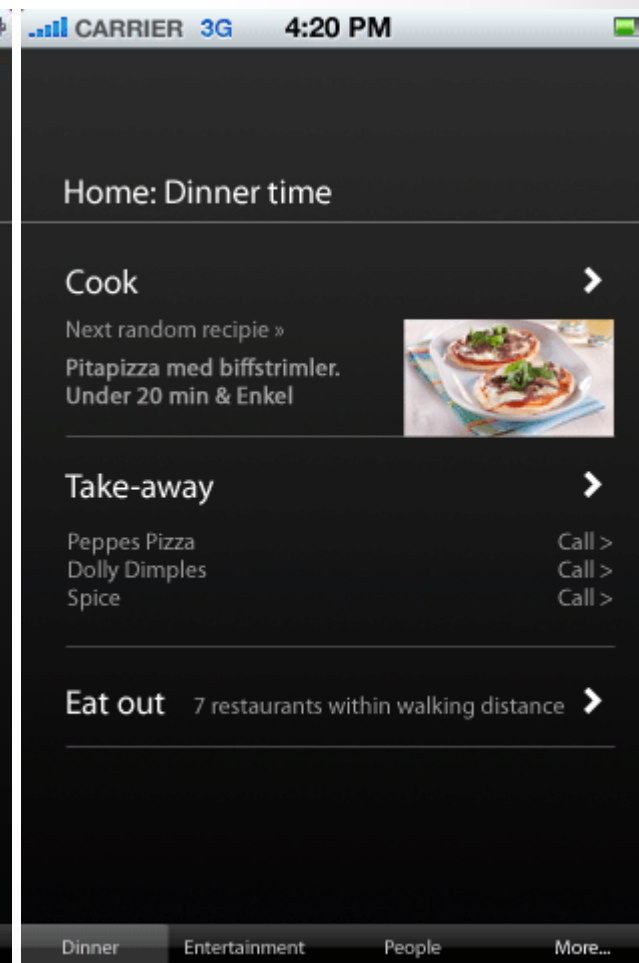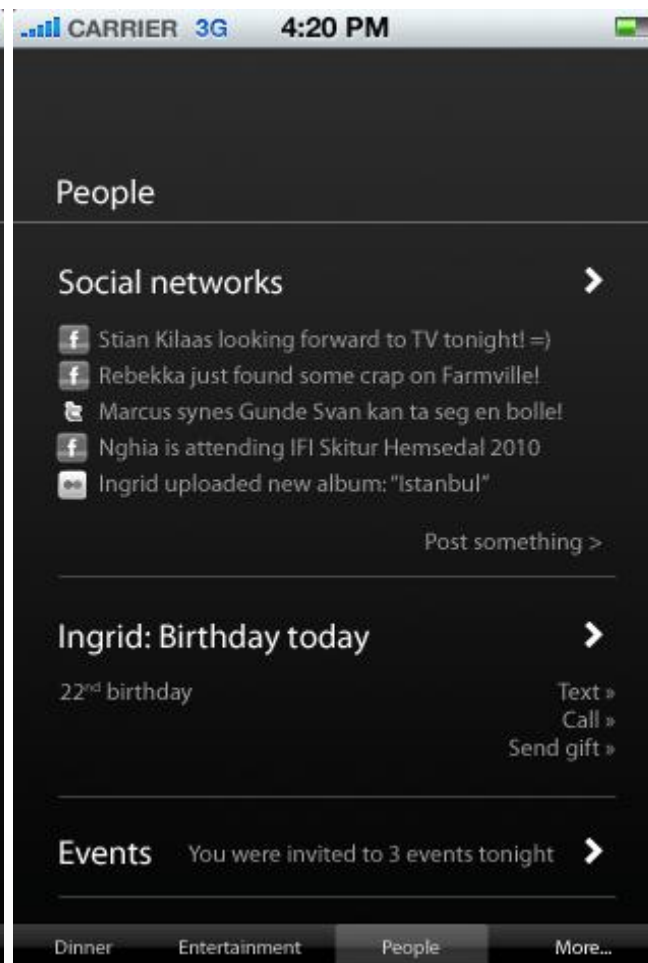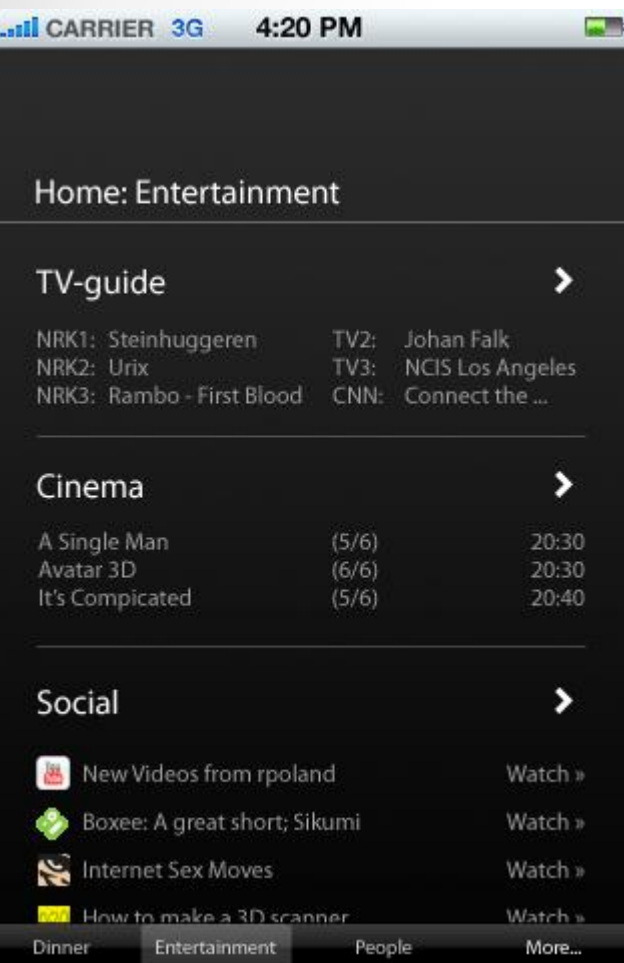
Project evaluation

- We put too much merit into our assumptions
- We began prototype development too early
- We started with quantitative interviews – find a more relevant setting
- We should have asked the users what keeps them from using their devices more
- We over-estimated the interfaces' role in usability. Content is apparently much more important.

Conclusion

- Motivation: understand why users do not use their mobile device more everyday

- Hypothesis: devices were not user-friendly enough. To increase usability they needed to be context-aware.

- Result: we learned a lot from our mistakes, but also discovered that mobile devices' have poor usability, content-wise.

Thank you!

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