Wednesday, 10th

1. Theoretical part
   “Always learn from your mistakes”

2. Who older people are?
   Video

3. Practical example

4. “Interactive garden”

5. Evaluations Results

6. Practical part Discussion
Thursday, 11th

1. **Theoretical part**
The user is a king

2. **Why UCD process**

3. **Creative methods In/Out**

4. **Good practice**

5. **Practical example + Results**

6. **Practical part**
Design a device for Frederek & Use of Method cards
“Always learn from your mistakes”

Helena Sustar, March 2010
Who older people are?
Statistics

world population +60 age in the year

- 2000 - > 420 millions,
- 2010 - > 550 millions,
- 2030 - > 1.38 billion.

The United Nations (Index, 2007)
5.3% of the population is over the age of 80. This is the highest proportion in EU sample, which has an average of 4.3%.

Sweden has a population of 9 million people, 17.6% of which are over the age of 65. By 2040 this will rise to a quarter of all its citizens.
“future consumers” 50+

- devotion of one's attention to their family (for example financial aid to children, baby-sitting grandchildren)

- higher education and financial standards, better dwelling possibilities

- low-level dependence

- active use of free time and a healthier life

- “a second career” (such as active participation in the social and political life).

(Coleman, 2002)
individuals 75+

- concentrating on themselves and their own health

- higher degree of dependence (multi-illness, dementia)

- decline of physical and psychical abilities resulting in lower mobility

- doing activities that demand little physical strength (reading, watching TV, listening to the radio).
Practical example
Personas

**Tom Johnson**, 75 years old
- **Occupation**: pensioner (ex politician)
- **Diseases**: increased prostate
- **Hobbies**: e-mailing, gardening, sailing
- **Informal benefit friends**, family
- **Living**: small house in Sicilia
- **Technology**: mobile, laptop

**Angela Merela**, 73 years old
- **Status**: married
- **Occupation**: professor of French language
- **Diseases**: disordered pulse, low blood pressure
- **Hobbies**: reading, visiting the garden
- **Informal benefit friends**, family
- **Living**: one-room flat
- **Technology**: house phone, mobile

**Bill Novak**, 35 years, ex-extreme sportsman
- **Status**: married (two children)
- **Occupation**: working in the gardening
- **Diseases**: paraplegic-moving with pram (car, city transport)
- **Hobbies**: sports shooting, reading, making crosswords
- **Informal benefit friends**, association of paraplegic
- **Living**: one-family house
- **Technology**: call in danger (bathroom), house phone, mobile, laptop, internet

**Kira**, 33 years old
- **Status**: single
- **Occupation**: fashion designer
- **Hobbies**: travelling, reading
- **Informal benefit friends**, family
- **Living**: an old dwelling from her grandmother
- **Technology**: call mobile, laptop, internet

**Katarina Grey**, 80 years old
- **Status**: widow
- **Occupation**: housewife
- **Diseases**: periodicity vertigo, affected organ for balance, high blood pressure
- **Hobbies**: reading, knitting, crosswords
- **Informal benefit friends**, family
- **Living**: bed-sitting-room
- **Technology**: virtual garden, house phone, mobile
Brainstorming

10 points
- smart
- simple
- independence

5 points
- mobility
- activity
- residence
- safety

3 points
- control
- ageing
- communication

Participants

Katja 25 years old, journalist

Mateja 31 years old, industrial designer and facilitator

Aleš 30 years old, mechanical engineer

Mija 25 years old, architect

Brane 37 years old, computer programmer

Tončka 73 years old, single countrywoman

Peter 26 years old, economist and businessman

Creative ideas

The device is so attractive that it enraptures, nephew, nieces and grandchildren they come and visit more often.

Ales

A device that reminds you to do the recurring tasks.

Peter

“virtual field” Users have to deal with pets, pets control problems... for that they give certain number of points, from witch can buy virtual cow, ...

Brane

Watch that could speak and has video connection with care giver. (It shows what is happening with an older person.)

Katja

The essential ideas is to create a simulator that will encourage user to do things by theirself.

Katja

Under certain circumstances the device gets activated.

Brane

The advice needs to break down occasionally so that servicemen came.

Peter
Research aims

it will be clear and intelligibly use

work in a natural way

to be indispensable and need to be taken care of

have universal interface

manage with the environment and the dwelling and

will stimulate user’s interaction
Components of the “Virtual garden”

- The diagnostic tools
- The central computer
- The transformers of information
- The mobile packing
- The communication devices
- The information recorders
Functions of the “Virtual garden”

Vodafone, Orange, Telefonica

Switch Off

Switch On

Place for the central computer.

Bandage of the computer is made of ElekTeks.

The structure of the sensor

Microprocessor
Connector
The diagnostic tool

The garden rake

The gardener rake checks if the entire communication - information kit works.

User can train fine movements and takes care of the garden at the same time.

Combing the optic fibres results in coloured “frass” due to filter which is placed on the surface of the garden’s rake.
The information recorders

Smell snaper

Smell snaper emits the odour gradually in the air.

first version

second version
The communication devices

The snail and the beetle communicate thought UMTS technology.

Sensor that indicates a sudden change, unexpected move or position (e.g. Fall).

The microphone

The loudspeaker

The message light flash alert.

The massage sound alert.
The transformer of information

The biowether flower

Providers info. services send weather report to the central computer which sends information to Biowether flower. According to this information the blossom opens or closes.

Blossom is opened if the weather is sunny.

Blossom is closed if the weather is rainy.

Telecommunication providers:
Vodafone, Orange, o2,
t-mobile, Virgin, Telefonica
The communication devices

The sensor for humidity

The fibres sense the humidity. They work like a simple hygrometer.

The grass (optical fibres)

The optical fibres emit the lightness and they work as a potentiometer.
Evaluations
Evaluations

25+  60+  80+

Aim
to investigate how different age’s groups accepted the mock-up model designed by the designer in a product design process

User’s opinion (criticism) on the mock-up model

Adoption of the mock-up model as an interaction device in a daily routine
able to recognize mock-up mode’s interaction & prefer more complex interaction

childish, for older people need to be design in old style & more visual attractive to older population,

not able to satisfied all age groups with one design

make a conversation & be reminded
60+

children representation of a garden

understood interaction with the device as old fashion and too simple

keys, a lot of different options and more information

other “older” users then themselves, children, children and people with disabilities

as reminder, which remind you to take a medicine
80+

not able to imagine & problems with distinguishing between a real garden, the mock-up model (non-functional) and the interactive (functional) model

difficulties with accepting the way how model was interacting

children

was not successfully adopted, participants prefer to use familiar technology
The mock-up model designed by designers was not an optimum approach for both older groups of users, although was closest to postgraduate students.
“We are all designers – and have to be. Professional designers can make things that are attractive and that work well. They can make beauty, create products we fall in love with at first sight. They can create products that fulfil our needs, that are easy to understand, easy to use, and that work just the way we want them to. Pleasurable to behold, pleasurable to be use. **But they cannot make something personal, make something we bond to. Nobody can do that for us: we must do it for ourselves.**”

(Don Norman, 2003)
Questions