

Co-creation with and for the ageing population

PROCESS REPORT

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ad10-id3

Irene Gonzalez Cruz, Maria Winther Kristensen

Process report

Title: Co-creation with and for the ageing population

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Group members: Irune Gonzalez Cruz
Maria Winther Kristensen

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Supervisor: Nicola Morelli
Associated professor
Department 19

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Summary

This thesis project concerns the development of a local web-based system for people in the 3rd age, which should help to strengthen their social network. The focus has been on co-creating a solution, together with seniors, which corresponds to the needs and considers the abilities of the users. The co-creation process has furthermore been used as a way to overcome the boundary between elderly and technology. This has been done by use of a reverse engineering approach, by first detecting the core mechanisms connected to social networking, and gradually building up a solution.

.....
Irune Gonzalez Cruz

.....
Maria Winther Kristensen

Foreword

The project has been carried out by the project group AD10-ID3 in the 4th Semester Master of Industrial Design at Aalborg University, Institute of Architecture & Design, Spring 2009.

Acknowledgements

Throughout the project a range of people have been involved in order to make the project possible. All of these people have been very helpful and we owe them a large gratitude. Thanks to:

- Staff, volunteers and activity attendants at Ældre Sagen Aalborg, activity centre Kastanjegården and Fyensgadecentret
- Aalborg Municipality, Ældre og Handicapforvaltning, ældreområde Syd-vest and Bevillingsenhed centrum
- All who have been interviewed, observed and participated in prototype test and workshops.
- Red Cross besøgsven committee
- Dynamicweb

Reading guidance

The submitted result of this project is divided into two papers, the process report and the outcome report, and a DVD.

Present process report describes the carried out project and the outcome report presents a process synthesis and the developed solution.

The DVD contains the Appendix, both of the papers in PDF format alongside additional project documentation.

Process report

The report is structured by four overall chapters:

Phase 0: presearch + program

Phase 1: research + analysis

Phase 2: concept development

Phase 3: concept detailing

These phases reflect the stages of the design process. However, as a design process is far from linear, as many elements overlap, it has been attempted to describe the process in the order that gives the best picture of the actual sequence of events.

References

The references in this report are carried out as following:

[Author surname year of publication, page number]
which is stated in the text after the section for which the source has been used.

If the reference has more than one author it is the surname of the first author which is stated followed by et al.

More thorough information regarding all used sources can be found in the bibliographic references in the back of the report.

Illustrations

Illustrations are referred to as: **Fig. chapter number. illustration number**, e.g. the first illustration in chapter three is written **Fig. 3.1**.

For each illustration there is a separate explaining text. References for illustrations are stated after the illustration text, in the same procedure as for text references.

Illustration references can be found in the back of the report where only references for figures based on external sources are listed.

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Objectives of the project

As the master thesis neither has an overall defined theme nor learning objectives, some general objectives for the project have been by the design team (Irene and Maria) in the initial phase of the project.

These are parameters which can serve to evaluate if the project turns out as a success or not, together with the defined problem statement.

The project, as the final thesis of the master degree, is bridging the way to work life. The carried project should concern the following objectives:

- Development of a system design concept
- Explore the area of co-creation in service system design by means of:
 - interviews
 - observations
 - workshops
 - rapid prototyping
- Collaborate with a company, organization or people directly involved in the solution
- Be efficient and clear in the communication with collaboration partners
- Show ability to relate and use knowledge gathered during the Master Program
- Display and improve graphical and verbal communication skills in the co-creation process
- Organize, plan and manage the workload in reasonable time frame and fulfill it

Phase 0 considers defining the overall topic of the project and making a program for the project period based on an initial search regarding the chosen topic. The project is framed and the problem statement formulated at the end of the phase.

phase 0: presearch + program

Topic selection

At the origin of the project the starting point the mutual interest of the members of the design team was the general idea of creating a service system, that could provide the opportunity to work together with users during the different parts of the design process. The main theme of interest was sustainability, either environmental or social.

A first brainstorm was done in order to expand the two areas and get a broader idea of the opportunities the different

topics could offer. Research was done in more of the fields, digging into them and trying to find a relevant topic. New themes we discovered while further research was done on each subthemes.

The process of defining the topic lasted for a relatively long period of time. However, the more detailed description of this process is left out here, due to the little relevance of it, concerning the final scope of the project. Finally, social sustainability for the ageing population was chosen to be the focus of the project.

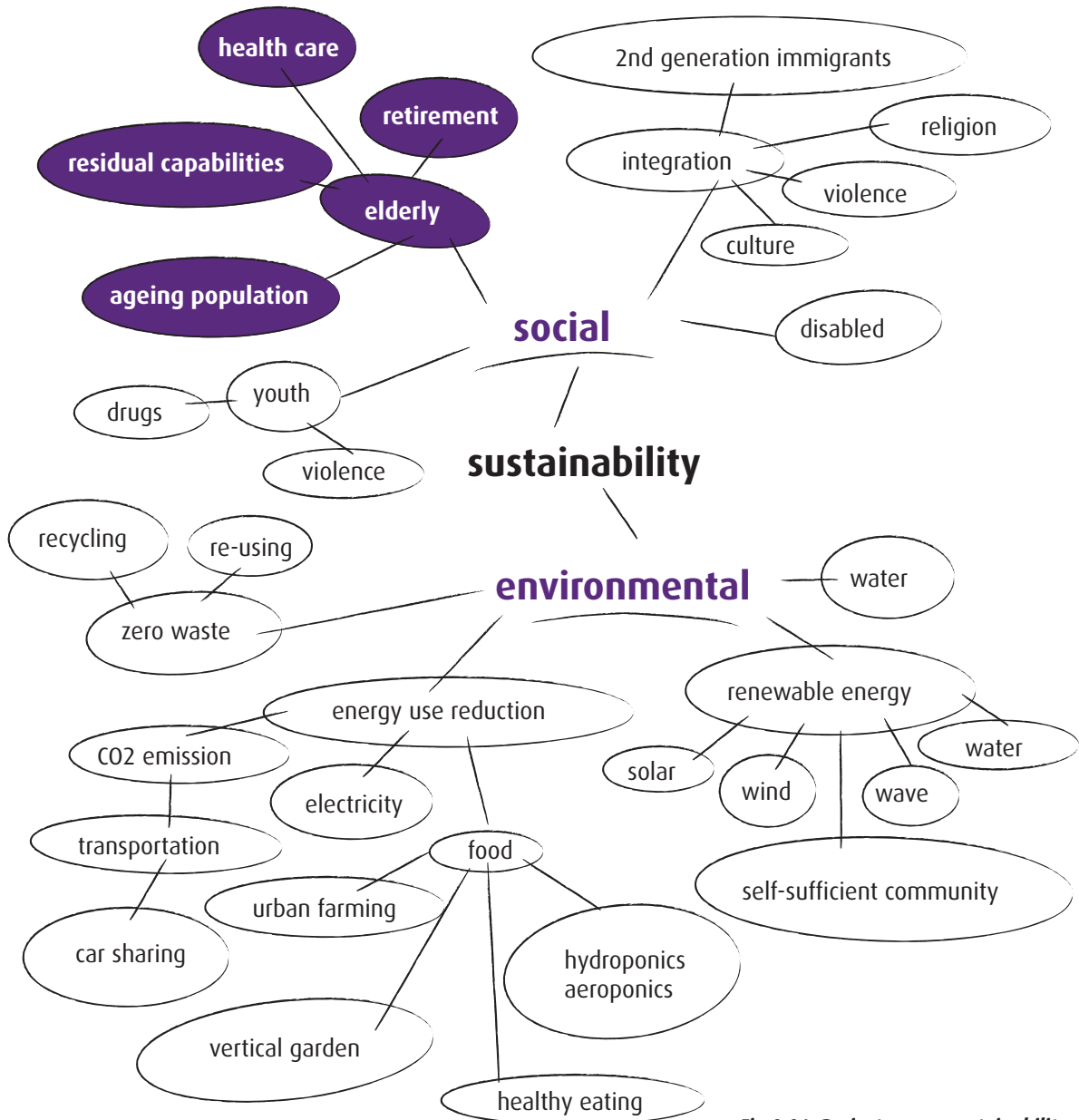


Fig.0.01: Brainstorm on sustainability

Changing demographics

One of the reasons for choosing to focus on elderly, was the future change in demographics, which is described in the following.

We live in an ageing society meaning that the amount of elderly people is raising and the birthrates are falling. This is the occurring tendency in Denmark as well as the majority of the western world. [Wier 2008]

The demographic growth in number of elderly is continuing until the year 2040, where the amount of elderly above the age of 65 is predicted to increase by 64% . [DSI 2005]

The cause for the growth in amount of elders in the future is on one side the high birthrates in the 1940ies and the time surrounding that period of time. Furthermore the average lifetime is expected to raise in the future by 3-5 years. [KL 2007]

By this change of demography the society will have to adapt to the new situation and the consequences from it:

- The number of elderly that are in need of care will raise. Especially in the group of elders above the age of 80, which means that much more resources are needed in order to maintain the service for elderly at the level as it is today.
- There will be a large group of "young elders". These are people who are healthy, active, socioeconomically advantaged and have high requirements for individualism.
- Finally it will be hard to find employees to take care of the growing number of assignments within the health care sector. Many health care workers will retire in the following years and the number of young people that can take over the work is low. [KL 2007]

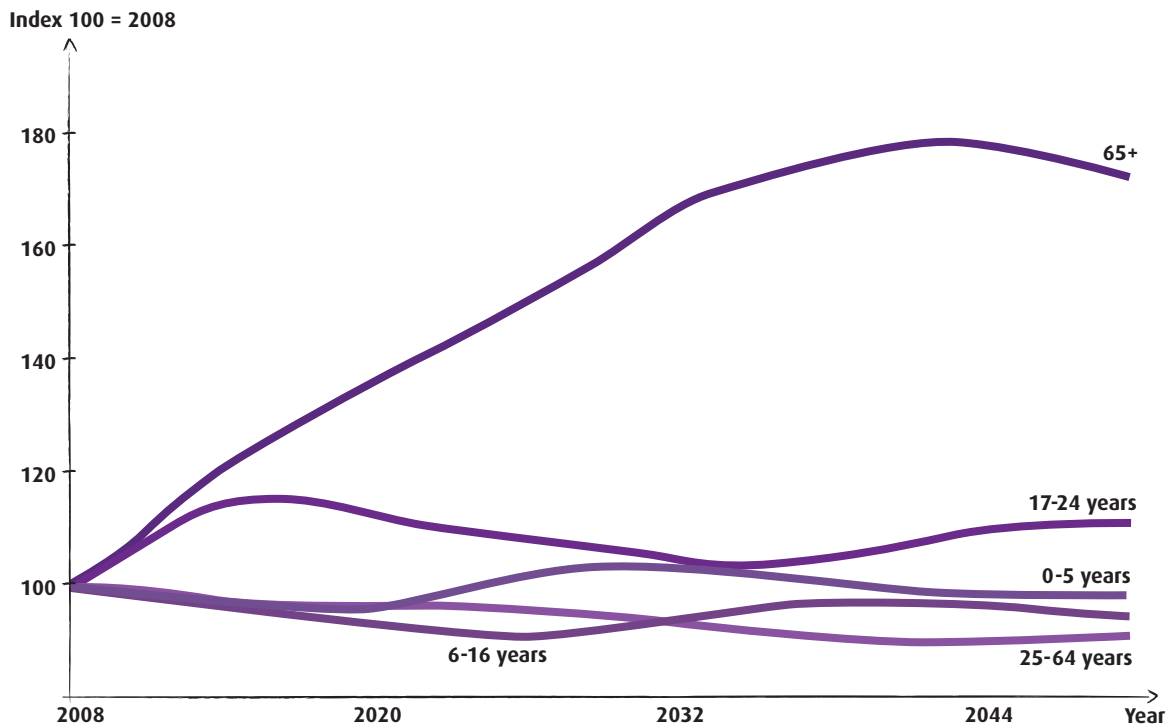


Fig 0.02: Demographic changes [Danmarks Statistik 2008]

Future elderly

As the target group for the project is elderly in Denmark today and in the near future, research was performed to obtain knowledge on this group. A survey on people born in the period 1938-1955 was found and is described in the following text.

The elderly of the present and near future are different to the previous elders in a number of areas. They have grown up in a period of high wealth with social comfort and a raising consumption. More have had an education and will therefore be relatively more independent. The women have been active on the work market as were not the case for the prior generations. They have more resources regarding economy, education and health.

This group of elders want to live a good and exciting life after their work life and might have higher demands for the society as well as themselves. Many want knowledge, development, experiences and options.

In many areas they have different characteristics than the elders we have known previously, which are described in the following:

Economic conditions

More have saved up money for their old age by private pension savings. They will have around 70% more savings than the generation before. It is therefore expected that the elderly will be more financially equipped and also will have the will to pay for services that improves their life quality e.g. health care.

However the situation for the elderly will be very uneven. Half will have private savings and the other half of the group will not.

Work life

The lack of young people in the work market will mean that it will be easier for the elders to stay at the work market after the age of 60 and 65. This makes a more fluent pension age possible. However it is unsure whether the elderly are interested in staying at the work market.

Functionality and sickness

Much seem like the future elderly will not only live longer, they will also be healthier for a longer period of time.

Many elderly will have a better functionality and mobility but the occurrence of chronic social diseases will raise. Also the number of people with dementia will raise as people live longer.

Wishes for pension life

Ældre Sagen has performed a future study where the ageing population have been asked what is important to make them happy.

Good health and family were the most important elements for the majority.

The major fear about getting old is to be sick and fragile and secondly is to be dependent of the help of others. Some also fear not to get the proper care or to get lonely.

The expectations for the pension age is to focus on the close elements:

- Spend time on hobbies
- Spend time on family
- Travelling
- Be with friends and neighbours
- Spend time on house and garden
- Some, about 1/3, also plan to spend their time on volunteer work, and also some want to have a folk school stay.

Social network and family

The social situation of the elderly in the future seems to be much as it is today. The future elderly have close family relations in general, only 5% have no family or are in rarely contact with family members. The importance of family have grown compared to previously and many help each other out across generations in a family.

The future elderly perceive the family as the most important part of their social network, but apart from the family they also have friends, acquaintances and neighbours.

There is a will to help each other out in the social networks both regarding practical assignments but also when people are sick or have other problems.

Wishes for living conditions

The majority want to keep living in their own home and neighbourhood. Location is important to them e.g. regarding how the home is situated in relation to service facilities or nature.

It is predicted that up to 75% of elderly in 2020 will live in their own house, which is many more than today.

Expectations for help from the public sector

The future elderly have been used to a relatively large consumption during their adult life. They will be more demanding and will have a lot of requirements for the public sector.

Socioeconomically disadvantaged elders

Even though the picture of the elderly of the future is positive for the majority, a smaller group will not be as strong in resources as the rest. They will have a weak social network, be lonely, have bad economy and health and not participating in hobby activities. [KL 2007]

Dreams for retirement life

Another survey shows that what people dream about regarding their elderly life can be defined by 3 words:

- Active - want to be moving and doing something
- Independence - no need to ask others for help
- Autonomy - want to be in control, decide for themselves

Also people want to maintain having the dignity and respect they have experienced through life. The close family relations have to keep existing and they want freedom to manage ones own time.

Luckily the majority of elderly can live a life reflecting this dream but some are not that fortunate. [Larsen 2007]

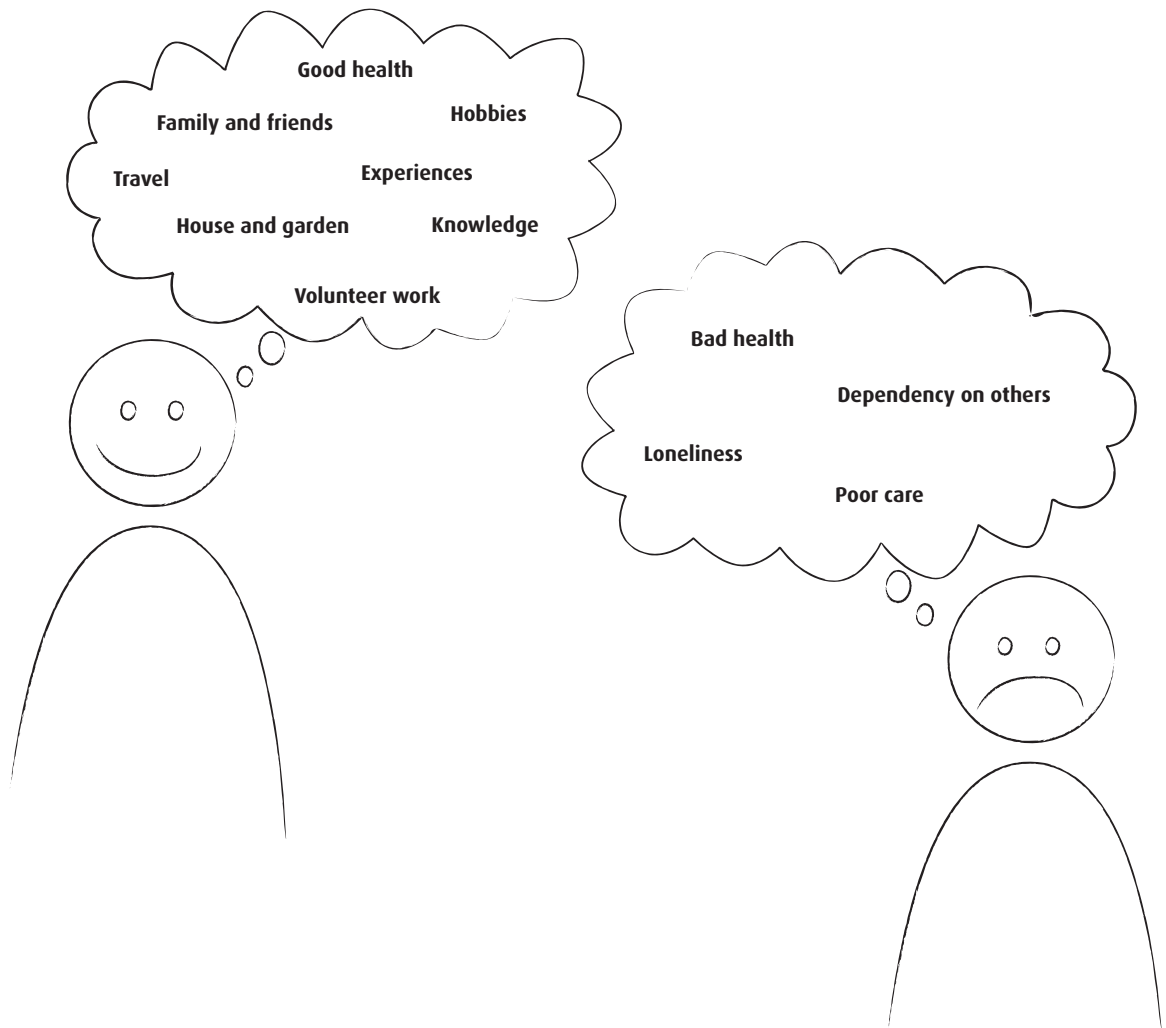


Fig. 0.03: Dreams and fears of elderly

Approach and methodology

In order to plan the design process to come, the following approach has been defined. As co-creation is of interest of the design team, and we have few previous experiences with this field, it is defined below.

Co-creation

Currently, many researchers and service designers are discussing the roles of designers and actors involved in the design of a solution, and the different ways of cooperation between them in relation to problem solving.

Due to the fact that this topic is still being reflected upon, there are difficulties in defining it. Some authors have tried to do it, and some of the statements found interesting have been collected, to get an understanding on what is meant by co-creation and what the ongoing discussions are claiming.

One of the main intentions behind co-creation is involving different actors in the design process in order for them to participate in the creative process. This can be described by the old saying in the side.

"Tell me and I will forget,
show me and I will remember,
involve me and I will understand,
step back and I will act."
[Chinese proverb]

Why?

In service design today co-creation is an approach used by more and more designers as:

"...the future role of the designer will need to be that of an agent who makes orientated events happen."
[Manzini 2005]

"The design process itself determines the success or failure of a service-design project...

... by running *engagement events* with the people who would eventually end up providing these services to those who need them. And by doing this, the support agencies felt a much greater level of ownership over the concepts."

[Fullerton 2009]

"Co-design is about capturing lot of different perspectives and sides of experiences, towards better solutions using innovative and creative techniques.

...it is based on personal experiences in order to make sustainable solutions...
the contribution can be seen in the end product service...

...Co-design is an approach that can be applied to all sorts of services."
[thinkpublic 2009]

"... When designers take the backseat and actively involve individuals from all levels of an organization in the innovation process-empowering them as co-creators of service concepts-they can develop a more cohesive experience at the point of use...

...We want to design with users in order to see beyond insights and opinions on a situation, an existing design or a proposed solution, and help people discover their own ideas on how to tackle a problem or make the most of an opportunity...

...Users gain a sense of ownership of the project and its outcomes, and may even become champions of the project and process within their organisation or group...

...Co-creation is a powerful tool in many situations, but in particular we have found it to be successful in bringing together the needs and ideas of different types of users within an organisation."

[Engine 2009]

How?

Having people being creative, requires the designers to facilitate them with the proper information and tools for that purpose:

"Everybody can be creative. It is simply a case of teaching people how to be open to experiences beyond their own... Allow them the opportunity to use their creative skills and give them the environment in which they can be creative."

[Hollins et. al. 1991]

"Co-producers... will need new tools to analyse and design the system, and find adequate forms of representation to codify knowledge within the new production system...

...New languages, need to be introduced, in order to communicate new contents to such new actors."

[Morelli et. al. 2007]

"One lesson I've learned about participation is that you need to have lots of things going on at the same time... find different environments, techniques, approaches and methods to engaging people and encouraging participation."

[Parker 2009]

Mindset - new paradigm

Based on the thought that working with co-creation partners along the design process has great potential in service design for social innovation, the project aims to explore the different implications of such a process in the outcome and success of it.

As co-creation is currently being reflected upon, the project would be the means to understand better what it is about, design the design process itself (e.g. tools and material...) and discover benefits, difficulties and challenges that would contribute to the debate.

Users are an important part of the design development process of our project. As the project is targeted to the ageing population, not only user involvement is considered, but also a new way of understanding those users. As stated by RED [RED Design Council 2006, pp. 7-8], a new paradigm of public services for the ageing society is needed in order to contribute to more sustainable solutions. This pattern emphasizes the idea of elderly people as very diverse people that should be treated as knowledge source and focuses on the potential of using their residual capabilities.

The diagram bellow shows that this way, the perception of elders changes from a threat to society to an opportunity.

Methodology

In previous projects many methods to approach service systems development have been used. The methods can be applied in different phases of the design process, depending on the purpose.

Some methods seem to be more relevant regarding the topic, such as scenarios, interviews and observations, actor mapping, front office/back office representations and systemic maps.

Nevertheless, due to the focus on the co-creation, new tools to enhance creativity of the participants are going to be created. Workshops and rapid prototypes will be tried to implement, even though these are methods the members of the design team have little or no experience with.

old paradigm

new paradigm ✓

elderly are treated as

a uniform group
passive consumers
users not producers
dependent
a threat

diverse individuals
active consumers
users and producers
independent
an opportunity

services

treat symptoms
centralise resources
are institution centered
are unsustainable

prevent problems
decentralise resources
are person centered
are sustainable

Fig. 0.04: Old and new paradigm [RED Design Council 2006, pp. 7-8]

Collaboration

As the co-creation process needs co-creation partners to design with, some considerations about actors that could be interested in the project were done. The department of Elderly and handicap area of Aalborg Municipality and Ældre Sagen were contacted and decided to be the collaborators for the project, in the sense of being: providers of information about elderly, possible providers of the developed solution and mediators to get in contact with seniors.

Aalborg Municipality's Elderly and handicap department offers a wide range of services and activities for elderly and has an interest in ensuring a good quality of life of the elderly. The established contact person for the project is Gytte Gade, head of the South West area of the previously mentioned department.

Ældre Sagen is a Danish non-profit organization, with 542.000 members, looking out for the well being of elderly. It offers a number of initiatives to the members, such as counselling, social humanitarian work arrangements and information. Furthermore Ældre Sagen is in charge of different activities, e.g. introducing elderly to new technologies and assisting them in learning to use e.g. computer programs, internet and mobile phones [Appendix A]. The main contact person regarding the project is the vice president of the Aalborg department of Ældre Sagen, Hans Vinter Buus.

An initial meeting was held with the contact person of Ældre Sagen, in order to obtain information about Ældre Sagen's view on elderly and the occurring problem areas at the moment. Here we discovered that the members of Ældre Sagen were categorized by a division in two different groups: active elderly and weak elderly. The active are the largest group and defines the people who participate in sports, cultural activities and travel. The weak are the ones that are more passive, for instance can be bound to their home.

The majority of services provided by Ældre Sagen are tackling issues regarding improving the social well being of seniors by helping out people with weak social relations, in worst case lonely people. This was seen as an interesting area for the project to focus on.

Approach elements

The diagram below shows the main elements of the project. It can be summarized by saying that it is a co-creation based design process for a system design for social innovation.

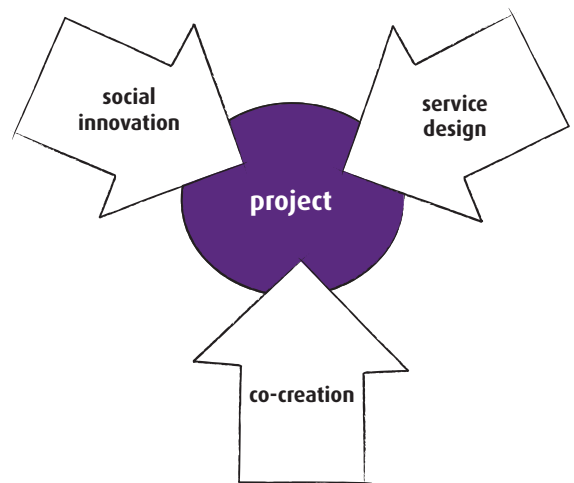


Fig. 0.05: The main elements of the project

Loneliness and social network

From the found interest in focusing on loneliness and weak social network of elderly from the meeting with Ældre Sagen, research was performed on this topic. In order to understand what loneliness is the following paragraph defines what affects one to feel lonely and how it relates to the social network of a person. Research was performed on loneliness amongst elderly, which is also described.

As humans are social beings we are not equipped to live in solitude. However loneliness is not merely a question of being alone, it is a complex combination of many different areas. Loneliness is a feeling connected to an absence of identification, compassion and understanding from ones social network, causing a person to have an overwhelming feeling of emptiness and solitude.

The larger city one lives in, the harder it is to care about and identify yourself with the people in your community as there are so many of them, and here one can feel lonely even though surrounded by people.

People can experience loneliness for many reasons, e.g. because of the loss of a significant person in one's life which often result in a grief response and the feeling of loneliness. This is a situational/circumstantial type of loneliness which also can be caused by moving to a new city for instance. [Wikipedia 2009]

It is not quantifiable how many people one need to have in ones social network in order to avoid loneliness. It is instead the quality of the relations which is of importance, so that the social network provides the right values to a person.

Six areas can be identified as needed to be covered in a strong social network which thereby can avoid emotional or social isolation of a person, causing loneliness. These are explained in Fig. 0.06.

If one of more of the areas are not covered the social network is weak as described by Fig. 0.07. [Larsen 2007, pp. 1-3]

Fig. 0.06: Strong social network

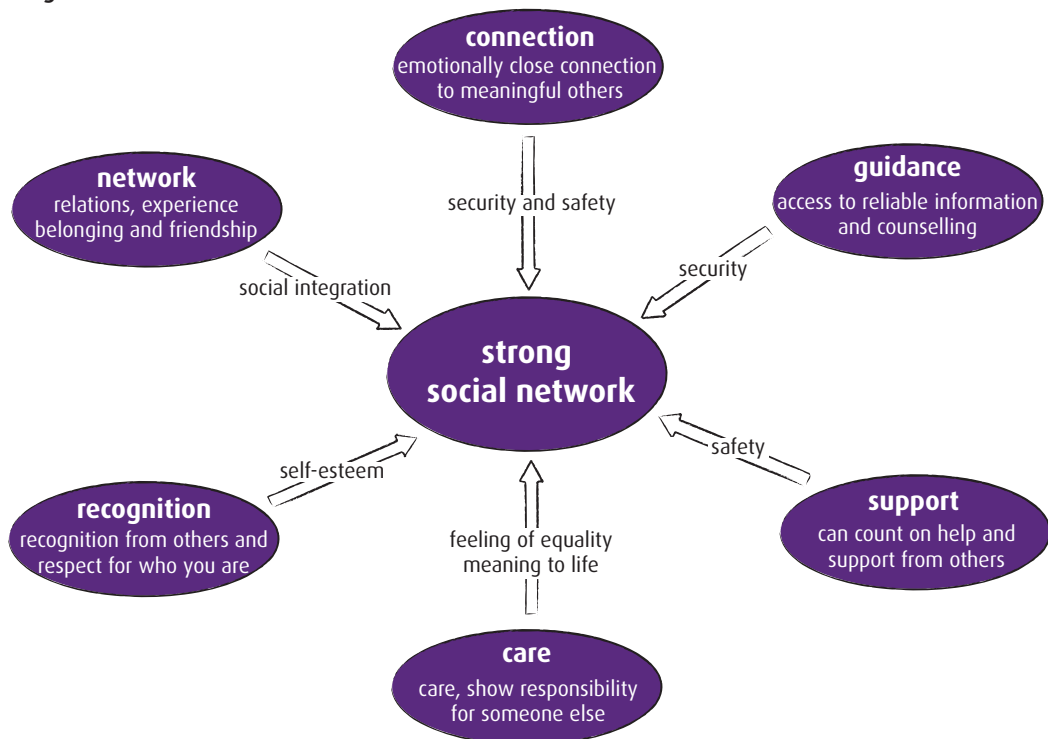
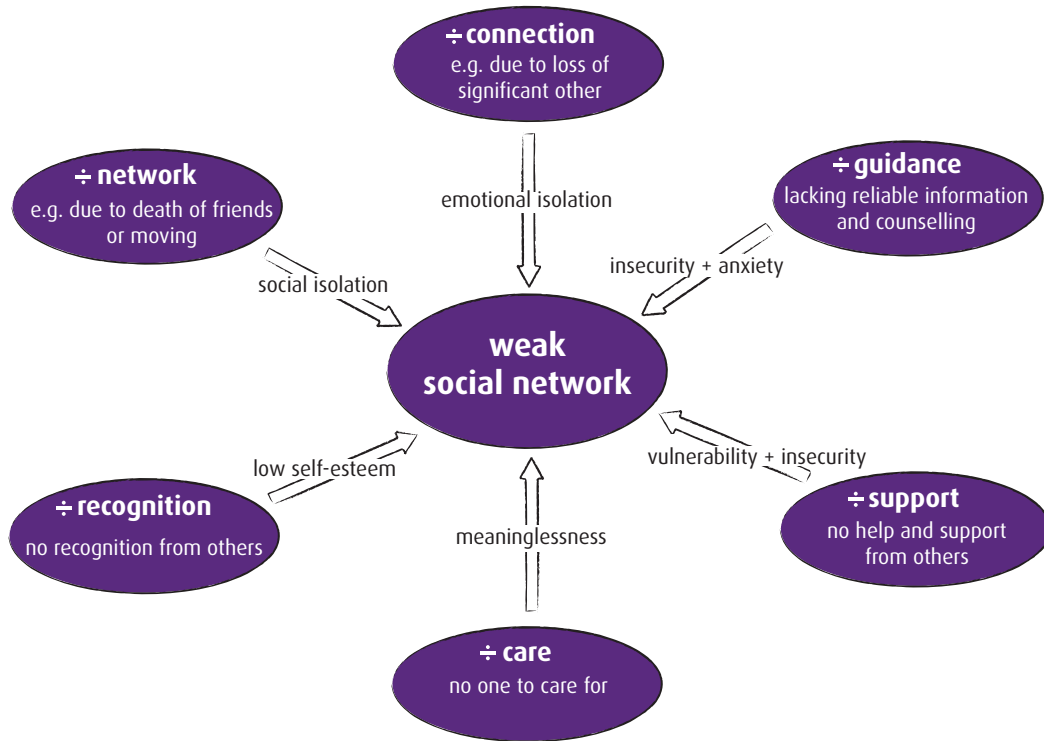


Fig. 0.07: Weak social network



Social network of seniors

Studies on elderly and loneliness show that:

3% of 52-62year-olds often feel lonely

4% of 67-72year-olds often feel lonely

5% of 77-82year-olds often feel lonely

8-10% feel lonely now and then. The numbers do not seem that high, but still the elderly are the people feeling lonely the most, compared to other age groups.

[Ældreviden 2009, Christensen 2007]

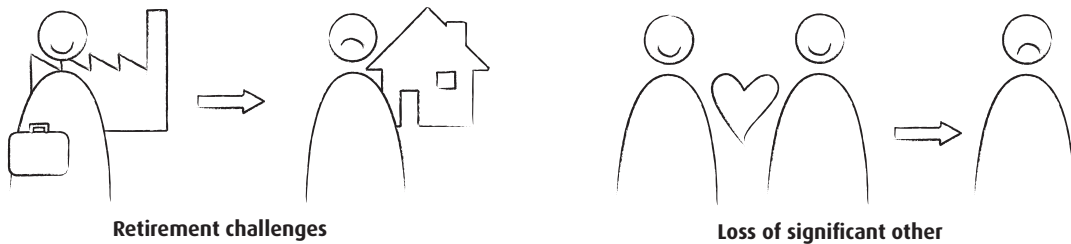
However 46% of Danes today fear that their family will not be able to provide the human contact they are in need of when they become elderly. Furthermore 55% don't think that the public sector will be able to provide the needed human care and contact. [Kristensen 2009]

Elderly are, due to their age, affected by more changes in life that can cause to weaken their social network and thereby well being.

When a person retires from the work market they might not meet the same extend of new people, with the same interest, as were possible through the job. Also have to redefine what they will spend their time on, and the recognition one might used to get from the work effort is lost.

Friends and family can move or pass away, and the loss of ones significant other is a big change from having been used to have one to share each day with.

Fig. 0.8: Causes for weakened network of elderly



Importance of social network for health

A good social network is a way to avoid loneliness as presented in previous paragraph, but it is also beneficial for the physical and mental health of a person.

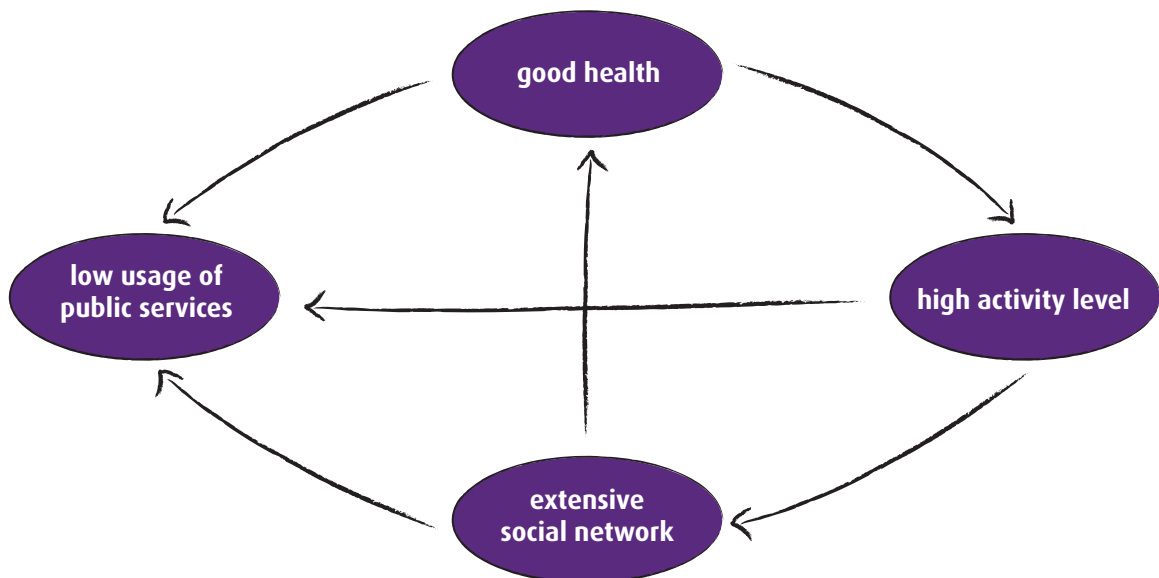
People with strong social relations do not easily get sick, and then if they get sick, they are fast to recover. This also means that the risk of dying early is higher for persons with weak social networks.

A weak social network causing one to be alone often and not having many obligations can result in development of pseudo-dementia and depression.

[Christensen 2007 , Kaas 2008]

As the social network of a person has an influence on the health, it also means that the use of social benefits, such as hospitalizations is lower for people with good social relations. This also has to do with the fact that the network in some cases can take care of the tasks which the public sector would have to handle for a person with weak social relations. [Arendt et.al. 2002, p.p. 59] For that reason it is of interest of public institutions such as municipalities that the network of elderly is strong, so money can be saved for social health care. The relations between social network, health, activity and use of social benefits are described from the good life circle in Fig. 0.09. [Ishøj Kommune 2009, pp.1]

Fig. 0.9: The good life circle [Ishøj Kommune 2009, pp.1]



Well being of elderly

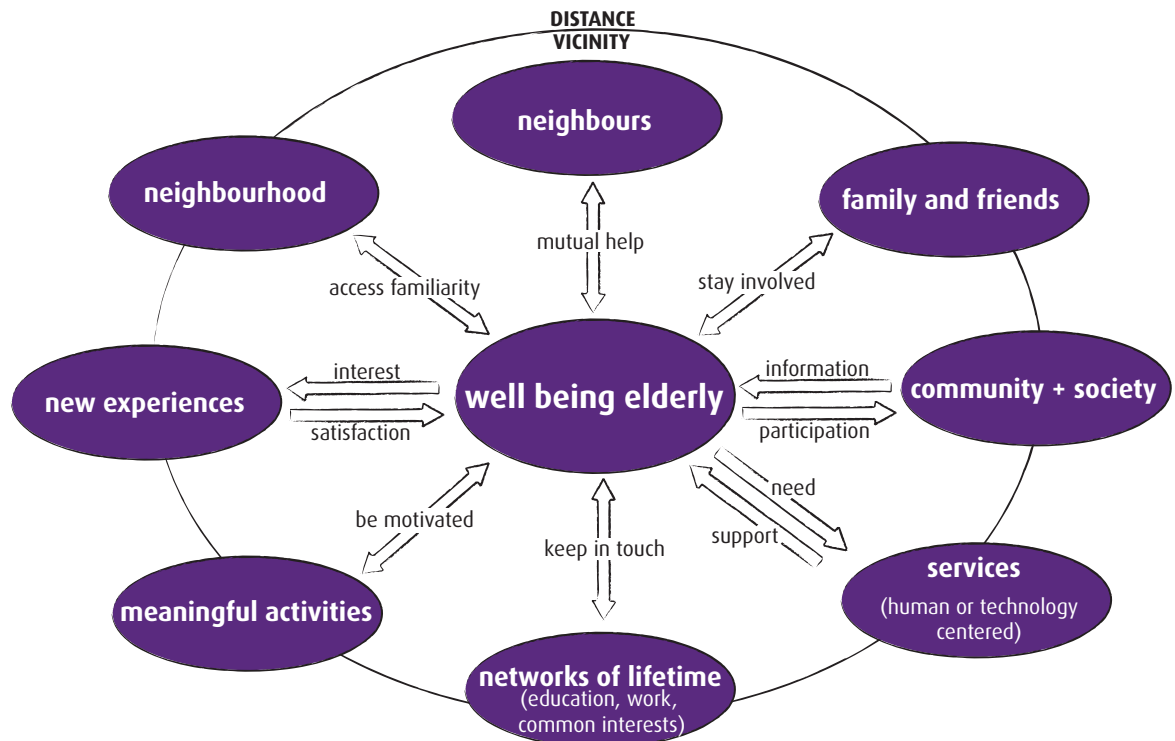
Some elements such as new experiences and meaningful activities and actors for instance family and neighbours are directly related to the improvement of people's well being.

Fig. 0.10 shows the relation between them and the values they provide.

It is important to see that the areas can be classified by proximity to the elderly. While some are close to them, others are in the distance.

Especially in larger cities there can be a larger distance to social network than when living in a small city or a community with a larger group of elderly gathered in one place. For instance, the interaction of neighbours family and friends is usually more difficult due to the longer geographical distance between them.

Fig. 0.10: Actors and elements contributing to the well being [Ambient Assisted Living 2009, pp. 6]



Services for weak network elderly

As social network of elderly are not strong enough, many different voluntary organisations in Aalborg and around Denmark have initiatives to help out elderly with a weak network such as Ældre Sagen. Some of the services provided in Aalborg are:

- Besøgsven (Visitation friend)

Volunteers visiting lonely elderly in their home on a regular basis, usually once a week.

- Tryghedsopkald (Security phone call)

Elderly are being called by phone each morning to make sure they are feeling okay.

- Gi' en arm (Lend an arm)

A service for elderly to get a volunteer to come with them for errands, e.g. a doctors appointment.

Further more Ældre Sagen provides a range of activities which also can cause in improved network if the participants build relations to one another. Which is a more indirect approach for helping people to strengthen their network.

[Appendix A+B]

Organisations such as Red Cross and others offer a similar range of services. This as many have their own variation of the Besøgsven, Gi'en arm and Tryghedsopkald.

Both Ældre Sagen and Red Cross have people on waiting list in Aalborg and in the rest of the country, to get a besøgsven, so the organisations are not able to cover the need.

[Appendix B+C]

Other voluntary organisations such as Ældre hjælper Ældre, Skalborg Borgerhjælp are providing practical assistance for elderly, by doing small household tasks.

[De frivilliges hus 2009]

Problem definition 1

From the performed presearch the following can be summed up, from which the problem statement and system requirements have been defined:

- The amount of people above 65 will increase a lot in the near future
- The current system will not be able to cope with it
- The elderly want to be as independent from health care system as possible
- Elderly people's social network tends to weaken after retirement caused by different reasons

Problem statement

How to co-create a solution that improves the social well being of elderly?

System requirements 1

At this stage it can be stated that the solution should:

- Be realistic for implementation in present and near future
- Create a positive social change in the ageing population, towards a more sustainable society
- Relate and focus on the residual capabilities and skills of elderly
- Be developed through a co-creation process
- Be developed for Aalborg, as this is the context we have better access to

Along the process these requirements will be further specified and more requirements will be added from the obtained insights.

Phase 0 reflection

As a specific theme for the project was not quite defined prior to the beginning of the semester, some time was spent defining the topic. A program for the project had to be handed in on the 27th of February, see Appendix D. At this point the project was not defined sufficiently, so the programming phase continued after this date. Had this been done earlier, the programming of the project could have been more specific.

As the defined problem is only an overall statement, the problem areas of the topic of elderly will have to be defined in the research and analysis phase in order to define a final problem statement. This has to be done from a better understanding of the target group, based on both literature, interviews and observations.

Information in this phase has been collected primarily from written literature. The next steps concerning the beginning of the co-creation process will serve as reality check of all of it.

Establishing collaboration partners takes some time. Meetings have to be set up through different contact persons to the appointments with the needed people. This has been a barrier and caused some delay in obtaining information. Further in the process more direct contacts will have to be established, to get the collaboration to be more fluent.

In phase 1 the chosen topic and overall problem area are investigated further, ending up with a defined target group, a specific problem definition and problem areas to work from.

Primary methods for the research are user interviews and observations.

phase 1: research + analysis

Elderly in Aalborg - Denmark

In order to obtain a general knowledge about the target group of the project, research was performed on what it means to be elderly in Denmark, and specifically in Aalborg and which services are available. The outcome of the research is described in the following paragraphs.

It is hard to make an exact definition of when a person is elderly or senior age wise. The perception of when a person is elderly is most often connected to when people retire from the work market which most often is from the age of 60 and up.

In Denmark the age for people being qualified for old-age pension is 65 today. However early pension can be provided for people that can not work to full ability from the age of 18.

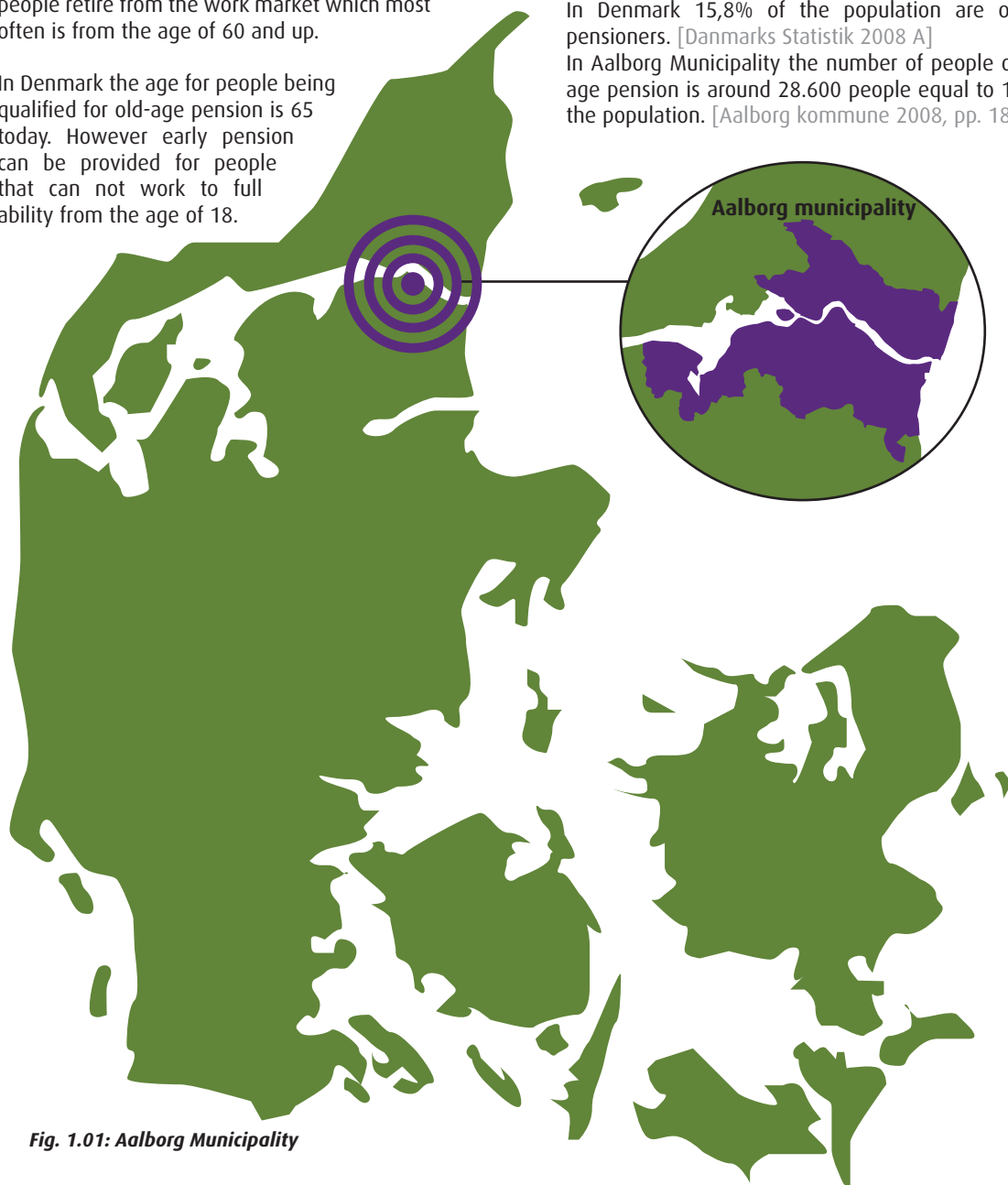
Both pension types are defined as social pensions which are financed by the State. The amount of money received is regulated according to the status of the individual. [Ældreviden 2009]

5 years prior to the old-age pension age, today meaning at the age of 60 people can take early retirement, which is financed by the unemployment fund of the individual person. [DSA 2009]

Number of old-age pensioners

In Denmark 15,8% of the population are old-age pensioners. [Danmarks Statistik 2008 A]

In Aalborg Municipality the number of people on old-age pension is around 28.600 people equal to 15% of the population. [Aalborg kommune 2008, pp. 18]



Municipal services for elderly

In Denmark the municipalities are required to offer a range of service for elderly according to the service law. From that law each municipality defines the quality standards for the service provided in the corresponding area.

For administrating the help for elderly in Aalborg, the municipality is divided into five elderly areas as can be seen from Fig. 1.02.

When a person retires, one receives a letter of information from the municipality regarding the services available for elderly. Also they receive the monthly newspaper for pensioners "Dit Blad".

After a person turns 75 years old they are contacted by a preventative employee from the municipality, who ensure that the elderly will get help if it is needed.

Both the municipality as well as the elderly them selves, are interested in them living in their own home for as long as possible. For that reason a range of services are provided in order to make this possible, which are defined in the following. [Appendix E]

Home care

When a person is in need of help from the public health care institution, the authorisation unit (Bevillingssenhed) in charge in ones living area is contacted. Then an examining officer (Visitator) is coming to visit, defining what one can and can not get help for, which dependent on the physical capabilities of the elderly.

There are three main areas of home care for elderly:

- Personal help and care
- Practical help
- Food

Personal help and care

Personal care is help for getting dressed, showering etc. Permanent help is for free, temporary help e.g. after hospitalization one might have to pay for depending on income.

Practical help

Practical help is help for cleaning, clothe washing etc. Permanent help is free of charge, temporarily help one might have to pay for dependent of income.

Food

If a person is not able to cook, one can have frozen or hot meals delivered or eat at an activity centre. The food costs approximately 40-50 DKK per meal, and the payment is withdrawn from the pension.

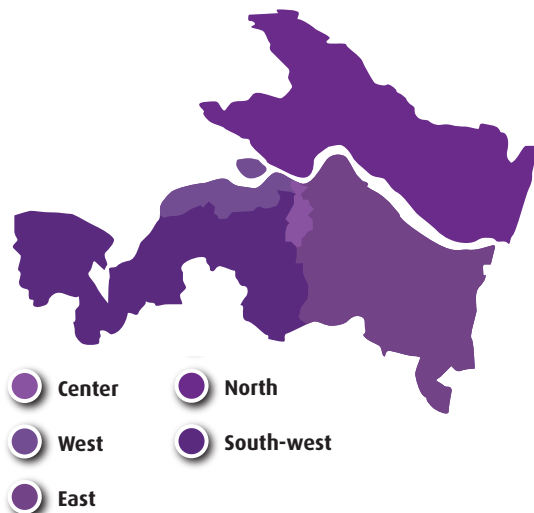


Fig. 1.02: Aalborg elderly areas

Free choice of help

The help provider for each of the 3 areas is free for the elderly to choose among different private companies, which are approved to perform the service at the right standards, and the help offered from the public sector.

[Appendix F]

Other types of services

Apart from the main areas of home care elderly can also be granted:

- Living accommodations
 - Nursing homes and elderly homes
- Transport to activity centres
- Rehabilitation
- Aids for assistance
- Furthermore there is special help for people with dementia and handicaps. [Appendix F]

Activity centres

The practical home care is of highest priority to the municipality but also social offers are provided for the elderly. This is done by activity centres, in order to ensure a social wellbeing of the elderly and thereby attempt to prevent physical and mental problems.



Fig. 1.03: Activity centre Kastanjegården

In Aalborg Municipality there are 39 activity centres divided in the five elderly areas. It is the municipality which provides the room and interior needed for the centres.

There are two types of activity centres: centres with employed staff and centres entirely run by volunteers.

In both types of centres it is volunteers who are in charge of the activities taking place. A centre council consisting of the elderly users and volunteers is formed in each activity centre and is in charge of the practical administration of the place in collaboration with the responsible from the municipality. [Appendix E]

A wide range of activities is going on for the pensioners to attend, these can be purely social, sports and games, creative classes, language and technology courses etc.

Most often it is free of charge for the elderly to attend the activities, only with a small fee for coffee for instance or payment for materials they use.

To inform the elderly about the activities taking place small booklets are created for each of the elderly areas, which displays the activities in the individual area. These booklets can be purchased at the centres. [Appendix F]

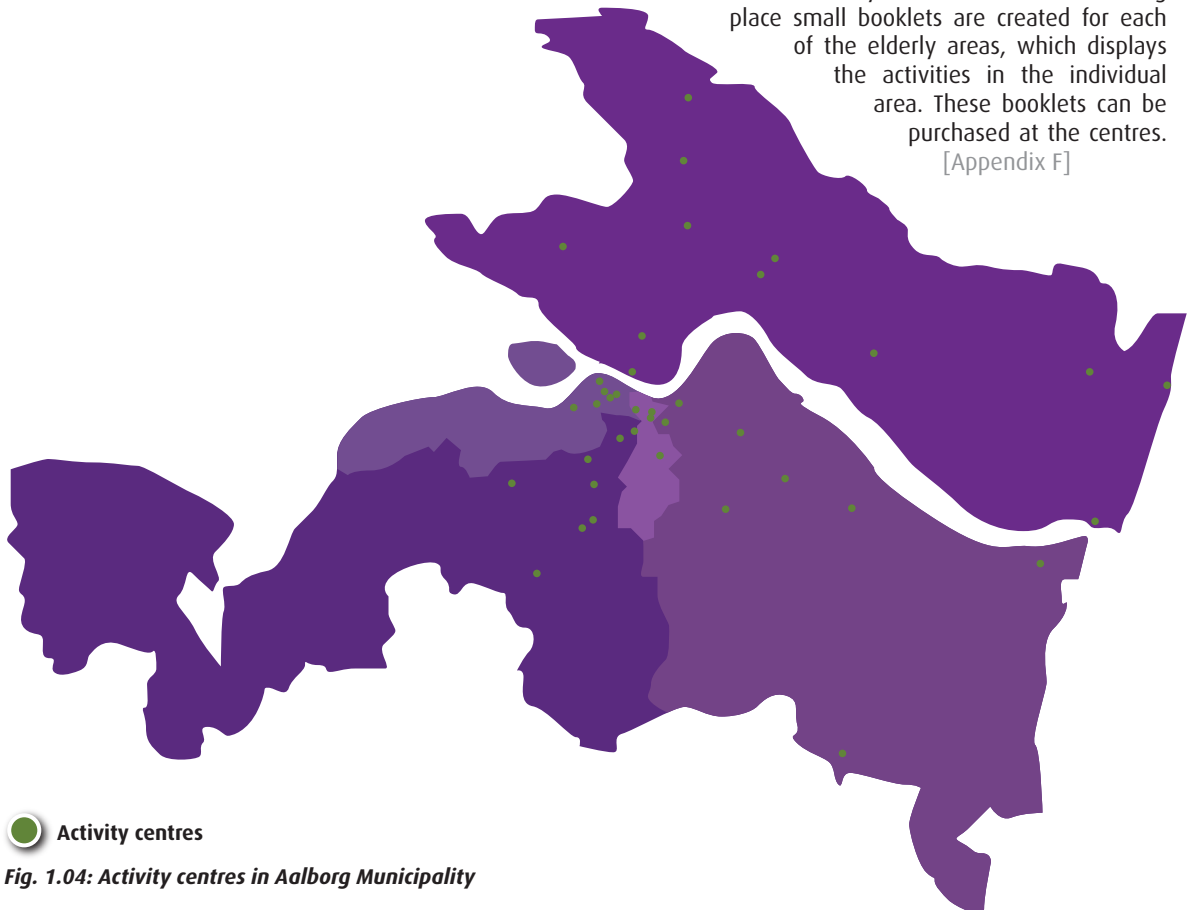


Fig. 1.04: Activity centres in Aalborg Municipality

Non-municipal activity offers

In Aalborg there is a wide range of activities for elderly apart from the ones provided by the activity centres. Some of which are listed below.

- Ældre Sagen Aalborg

Has a range of activities going on for their members, courses, sports, games, and IT-courses.

[Ældre Sagen 2009 A]

- Aalborg SeniorSport

Provides a range of sport activities for seniors

[Aalborg SeniorSport 2009]

- FOF Aalborg

FOF has a range of courses which appeals to elderly. One can sign up for many different categories of courses

[FOF 2009]

- Pensioner organizations

Many of these activity providers are organizations which receive funds from the municipality.

Apart from the activities targeted especially for elderly, of course there are also activity and entertainment offers that people of all age groups can use which are of relevance for elderly. [Appendix E]

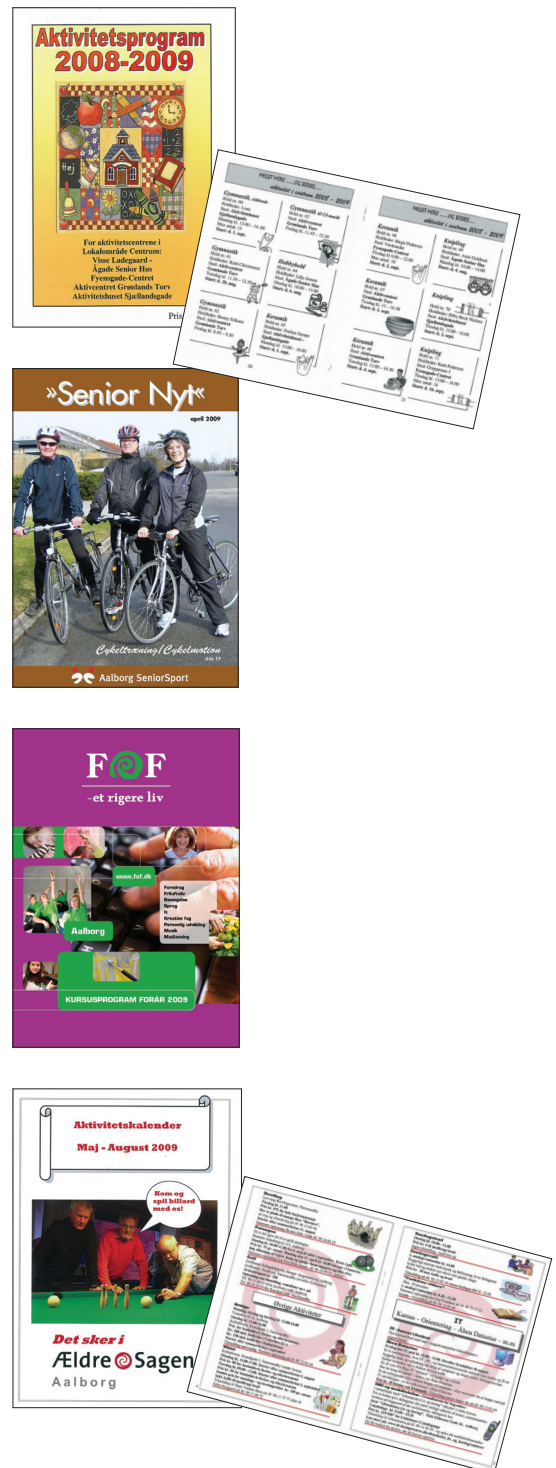


Fig. 1.05: Activity booklets from different organizations and activity centres

Technology and social changes

From the wish of strengthening social network of elderly, emerging technologies and current social changes are thought to be a relevant topic to explore, which is explained below.

While last decades have been characterized by a shift from an informal economy (based on strong and reliable social links, that serve to support functional mechanisms, without the need of a contract or an economic quantification) [Normann 2000] towards a formal economy (based on fulfilling people's needs by outsourcing providers), the evolution of information and communication technologies (ICT) is promising a new social change.

Historically relationships were based on personal communication, between people living in the same context, who were in the same geographical spot while the communication was happening. When the computers were invented they were used as a working tool but the latter arrival of internet allowed the expansion of information technology. Computers were connected to other computers and this allowed the fast and long distance one to one communication (e-mail, web pages, mono directional and usually top down communication). The information sharing increased exponentially.

Nowadays, the circumstances that allow a highly complex way of social interaction have been created. The arrival of second generation of internet applications (Web 2.0) has opened up the "one to many" way of communication. More people can say more things to more people than ever in history [Shirky 2009]. Some tools and platforms for this to happen have been created for business purpose, but people has started using and changing them for social purposes, to create value for themselves, taking advantage of horizontal communication.

Based on those new social patterns, it can be predicted that the economy is shifting towards what has been recently called "gift economy". The mechanisms of this market logic have new benefits. First of all, it empowers people and focuses on their abilities and valuable knowledge. Secondly, it generates new opportunities of interacting, which where not possible previously. And finally, it can support social interaction and lead to meaningful encounters related to a context.

Many positive aspects of the changes have been stated, but not everybody is taking benefit from them. The current platforms and tools have allowed young generations to do it, because their high technology embedment had lead to explore new uses of them.

It has to be taken into account that a large segment of the population, older generations, have not been born in a society where ICT are embedded in everyday life, for that reason they have restricted access to the applications and new social interaction ways.

Elderly and technology



Fig. 1.06: Elderly using technologies

Due to the focus on an ICT solution the relation between elderly and technology is researched.

A common perception is that elderly are afraid of technology and are not willing to learn new things. The rapid development in technology can be hard for the eldest of elderly to follow, especially as they have not been familiar with using technology such as computers and mobile phones when they were active on the work market. These can have a hard time finding the motivation to gaining knowledge on the new technologies and doubt that they will have the ability to learn. [Kristeligt dagblad 2007]

It all depends on how embedded technology is in ones life. When technology is new to people it requires effort to understand and it does not feel comfortable to use it. Once people get used to the technologies and become part of everyday life so they are used with low effort, it can be said that they are embedded.

Some technologies however are beginning to be embedded in the everyday life of elderly. Television and text-TV, VHS and DVD players, digital cameras, microwave ovens, and lately Wii. Many elderly have also embraced some of the newer technologies on the market.

Mobile phone use

99,50% of elderly above the age of 70 have a mobile phone, and 90,60% use it actively. [Newz.dk 2008] Mainly the elderly use the mobile phones to make and receive calls. But 57% of elderly above the age of 60 also perceives the SMS function on mobile phones as important.

The use of mobile phones is a way for elderly to feel more secure, for instance when they are out on their own. The use of SMS is a way to strengthen the communication between elderly and younger generations, e.g. grandparents and grandchildren. [Mobilbladet 2009]

As the elderly primarily perceives calling and text messaging as the most important functions of a mobile phone, more and more tend to purchase phones especially designed for the elderly segment. These phones for the most only have either the call function or call and SMS. Furthermore these phones are designed with large buttons and display alongside a simple interface making it easier to overview and for people with e.g. limited eyesight to use the phone. [Avisen.dk 2008]

Only a minor group use functions besides from calling and text messaging on the mobile phone such as MMS.

Computer and internet use

88% of the adult Danish population have a computer in their home and 85% have also access to the internet. Of people in the age of 60+ around 62% have a computer and internet access from their home. In the age group before (40-59 years old) the percentage is 89 % which mean that the elderly of the near future in much higher degree will be familiar with computers and the use of internet. [Danmark Statistik 2008 B pp. 3]

Of people above the age of 50 the internet is primarily used for the following:

- Information search (87%)
- E-banking (84%)
- Communication with family and friends (75%)
- Search for knowledge on medication/health (40%)
- Entertainment (games, film etc.) (30%)

[Ældre Sagen 2008 B]

The computer skills of people of different age groups were evaluated in a survey performed in 2007. People were tested in 34 ICT skills and categorized by 4 levels:

Level 0: Have never used a computer

Level 1: The weak

Level 2: the fairly good

Level 3: the best

[Teknologisk institute 2007 pp. 3]

Amongst the eldest participating in the survey the majority have little or no computer skills. See fig 1.07 [Videnscenter på Ældreområdet 2007]

Ways of communicating

When communicating with social network the following methods are frequently used by the stated percentage of elderly with internet access.

- Face to face contact (76%)
- E-mail (71%)
- Stationary phone (67%)
- Mobile phone (50%)
- SMS (47%)
- Internet phoning (e.g. Skype or IP-phoning) (12%)
- Internet chat (instant messaging e.g. MSN messenger) (10%)
- Letter (7%)
- Online social networks (e.g. Facebook) (3%)

As can be seen, relatively few use internet chat, phone or social services to communicate with social network.

[Ældre Sagen 2008 B]

Age	Level 0	Level 1	Level 2	Level 3
50-59	16%	25%	34%	25%
60-69	40%	24%	21%	15%
70-?	74%	14%	11%	1%

Fig. 1.07: Ages/level diagram [Teknologisk Institut 2007]

User interviews and observations

In order to obtain a better understanding of elderly people and more specifically to obtain knowledge on their network, use of activities and technology, different seniors were interviewed at the activity centres Kastanjegården and Fyensgade Centret, and through Ældre Sagen. This was done to define some of the occurring problems and opportunities regarding the topics. Situated interviews were performed with activity attendants, volunteers and staff at the location of activities, and some people were interviewed in their own home as well.

To supplement the interviews the behaviour of the elderly was observed at different activities at the 3 locations. This was done in order to see e.g. how the elderly are using technology and how the social relations between activity attendants are.

A list of topics and questions were prepared as guideline for the interviews, but it was attempted to have the interview take place like an informal conversation, with room for the topics brought to the conversation by the elderly as well. Both interviews and observations were taped and video recorded for documentation and further analysis. Summaries of performed interviews and observations can be found in Appendix G on the DVD.

In the following some of the seniors and observed activities from the different places are collected and briefly presented.

Interviewed people



Name: Elinor Bjeldbak

Age: 74

Status: Single

Interview place: Ældre Sagen

Description: Is attending Fortidens vidner where she writes about the past and sometimes Onsdagstræf at Ældre Sagen. She just got a laptop so she can e-mail with her daughter in Canada.



Name: Aase Skinnerup

Age: 70

Status: Single, has been married twice

Interview place: Kastanjegården

Description: Leading gymnastics and nordic walking at Kastanjegården. Is doing theatre in her spare time.



Name: Leif Fuglsang

Status: Married

Interview place: Ældre Sagen

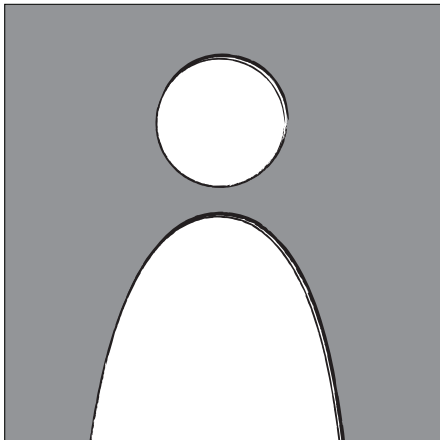
Description: Is teaching computer programs at Ældre Sagen and providing phone IT support, participates in Søndagscafe.



Name: Mette
 Status: Widow
 Interview place: Kastanjegården
 Description: Former member of centre council for Kastanjegården. Attends different activities at the centre, e.g. a computer class. Comes to the activity centre on a daily basis to hang out.



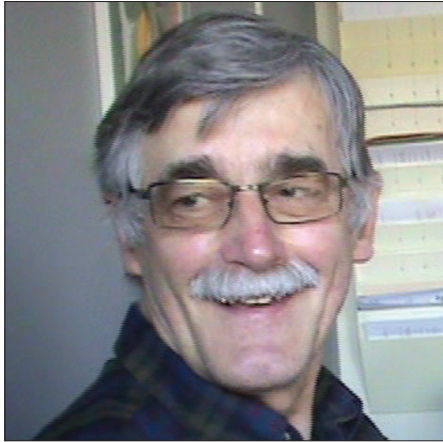
Name: Grethe Nielsen
 Age: 80
 Status: Widow, has been for 25 years
 Interview place: Ældre Sagen
 Description: Participate in Onsdagstræf at Ældre Sagen, a computer course at Ågade Centret and some activities at Fyensgade Centret.



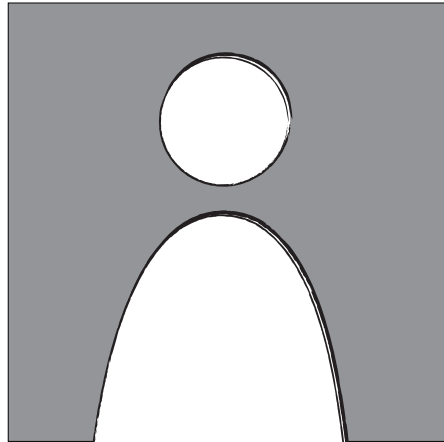
Name: Margit Estrup
 Status: Married to Børge
 Interview place: Kastanjegården
 Description: Participates in gym class at Activity centre Kastanjegården.



Name: Hans Vinther Buus
 Status: Married
 Interview place: Ældre Sagen
 Description: Vice chairman in Ældre Sagen, leading Whist, plays golf in his spare time.



Name: Christian Jacobsen
 Status: Married
 Interview place: Ældre Sagen
 Description: Is interested in genealogy and local history, taking a computer course at Ældre Sagen. His Grandchildren forced him to go on Facebook.



Name: Birthe Grøndal
 Age: 76
 Status: Widow
 Interview place: In her apartment
 Description: Birthe participates in the activity Fortidens vidner i ÆldreSagen where they share life stories. She likes painting porcelain and sewing. She has a besøgsven from ÆldreSagen.



Name: Edith Christensen
 Age: 70
 Status: Widow since 1989
 Interview place: Ældre Sagen
 Description: She is leading Onsdagstræf and administrating Ældre Sagen's Besøgsvenner.



Name: Grethe Jensen
 Age: 86
 Status: Widow
 Interview place: In her home
 Description: Has had a Besøgsven for a couple of years. Participates in different activities at Fyensgade Centret.



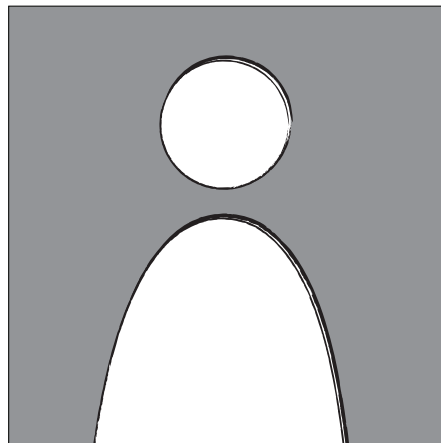
Name: Elin Kirk
 Age: 79
 Status: Single
 Interview place: Kastanjegården
 Description: Participates in gym class at Kastanjegården.
 Use Skype to communicate with her son in England



Name: Anne Lise Christensen
 Status: Married
 Interview place: Ældre Sagen
 Description: Volunteering for a lot of different things in Ældre Sagen, Fyensgadecentret, Frivilligrådet.



Name: John Fleckner
 Status: Widower, has got a girlfriend
 Interview place: Fyensgade Centret
 Description: Has written hundreds of pages of his own life story. Is a volunteer at Fyensgade Centret and also attending activities himself.



Name: Marie Lauritzen
 Status: Widow
 Interview place: Fyensgadecentret
 Description: Is attending Te-dansant and bridge at Fyensgade Centret.

Observed activities



Computer course at Ældre Sagen four Wednesdays. Seven low skilled computer users are learning how to use the explorer.



Wii play at Kastanjegården each Thursday. Elderly with low ability are playing games to get a bit of exercise.



Te-dansant at Fyensgade Centret one Friday each month in the afternoon. Live band is playing.



Onsdagstræf at Ældre Sagen each Wednesday. People gather to drink coffee and have a talk.



Gymnastics at Kastanjegården every Thursday for elderly with high ability. It is open for all, but only women are attending at the moment.



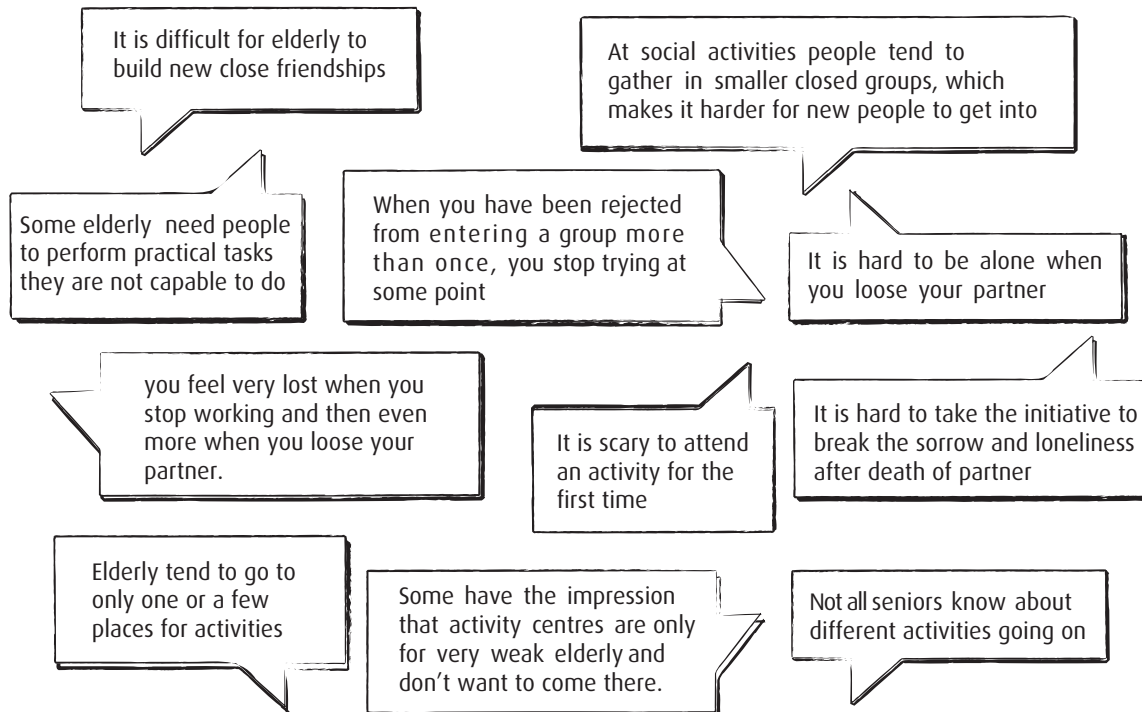
Computer course at Kastanjegården each Thursday. Learning to send and receive e-mails at this particular day. It is a three people class.

Networking

As interviewed people mentioned and the observations showed, networking usually represents some difficulties.

On the other hand, some aspects make it easier and facilitate the task of interacting with people. They have been collected in the following diagram.

Problem areas



Opportunities



Technology

Regarding the use of technologies among elderly people some barriers and problems were detected.

Nevertheless, positive aspects can be found in the way elderly react to information and communication technologies as well. The are all stated in the diagram below.

Problem areas

The majority of elderly are not as familiar with ICT as the younger generations

Social networks are created for younger people

The learning ability is lower than in previous phases of life

Some elderly are resistant towards new technologies because they have lived all their life without computers and do not think there is anything they can gain from them

Pictures and information shared on the internet can be stolen and used for other purposes

The loss of capabilities of elderly can complicate the use of technologies e.g. bad eyesight and motor skills

Elderly are afraid that technology will take over the human contact of e.g. the health care sector

Computers use English vocabulary in their softwares, which is a barrier

The response of the interaction with screens is virtual and not obvious for elderly, which stops them from trying to do things being afraid of the consequences

Opportunities

Almost all of them are willing to learn how to perform very specific tasks that have a meaning for them

some elderly feel that they have to learn to adapt to the development of society

elderly can be motivated to learn to use new technologies when they see an advantage e.g. learn to sms to communicate with grandchildren

"I use skype and send e-mails to communicate with family in other countries"

"I learnt to use microsoft word to make a song for a party"

"It is interesting to learn how to put pictures from digital camera on computer and print them"

Reflections on interviews and observations

Through the contact persons volunteers in charge of activities were contacted. We were allowed to come to activities and talk to people, but participants did not know about it. However, most of them were very helpful and interested.

Interviewing seniors that we had no previous relation to was a bit hard because talking about social network concerned personal questions. It was at the same time important that interviewed people feel comfortable and wanting to share their experiences and personal information. If they find the project interesting and some trust is created, a possible later collaboration on the project will be easier.

The interviews ended up covering more aspects than what was the focus of the interview, but it helped to get to know the users. It is worth it to listen to anything they have to say, because even if it is not related to the main purpose, it can lead to unexpected findings.

This means that a lot of information should be sorted away from the interview afterwards to separate what was of actual relevance to the project.

Performing the interviews has been time consuming, but it is relevant because constitutes the basis of the project.

Social network sites

As mentioned earlier Web 2.0 applications are commonly used for social purposes by younger generations, but are not popular amongst elderly.

In the following the phenomenon social network sites are described, and after that some of the existing social network sites have been analyzed according to barriers and opportunities from the perspective of elderly using it. The analysis is partially on the perception of the design team and the information gathered by interviews with seniors.

A social network can be defined as a social structure where individuals or organizations are nodes that are tied by different types of interdependency. [Wikipedia 2009 B]

Nowadays, the success of Web 2.0 applications have created fast ways of communication, secure information sharing and collaboration opportunities in the web. This has led to the development and evolution of web-based communities, such as social networking sites, video-sharing sites, wikis and blogs. All those mechanisms, specially social network sites, are thought to be very interesting tools that go beyond the traditional one to one way of communication. [Wikipedia 2009 C]

There are groups of people that primarily interact via newsletters, telephone, e-mail, internet social network or instant messages rather than face to face. In those cases if the mechanism is a computer network, it is called an online community. [Wikipedia 2009 D]

These services are used by people who share interests and/or activities, or who are interested in knowing about other people. Social networking web sites are being used regularly by millions of people, and they are becoming part of young generations' everyday life. [Wikipedia 2009 E]

As many of them exist, they have different characteristics. They can be classified for instance by main user groups (adults/mothers/teenagers etc.), interests (music/sports/travel etc.), or countries. The registration can be open, require an invitation from members or require a specific age. [Wikipedia 2009 F]

Fig. 1.08: Logo of Facebook [Facebook 2009]



Description

"Facebook helps you connect and share with the people in your life." [Facebook 2009]

Facebook is a free-access international social networking web site that is operated and privately owned by Facebook, Inc. Users can join networks organized by city, workplace, school, and region to connect and interact with other people. People can also add friends and send them messages, and update their personal profiles to notify friends about themselves.

Elements

- Personal page
- Wall
- Photos
- Tags
- Status
- Events
- Chat
- Find people
- Etc.

+ Advantages

- Free access
- Possibility to regain contact with people from the past
- Possibility to know about people through profile
- Can lead to physical encounters by the event application
- Event application provides information on what is going on in a local context

- Disadvantages

- Its open nature has created controversy - about surveillance, data mining etc.
- Facebook Inc. reserves the rights of the entries
- Complex privacy settings
- Difficult to deactivate and delete user accounts
- Interface changes often - creates confusion and requires learning

Fig. 1.09: Logo of Twitter [Twitter 2009]



Description

Twitter is a service for friends, family, and co-workers to communicate and stay connected through the exchange of quick, frequent answers to one simple question: What are you doing? The international network site is owned by the private company Twitter, and it is free for all to access it. [Twitter 2009]

Elements

- Personal page
- Followers me
- Following me
- Updates
- Direct messages
- Find people

Fig. 1.10: Logo of Senior Link [Senior Link 2009]



Description

Senior link is a relatively new Danish page and therefore does not have so many members yet. Its primary function is the same as a dating page, where people sign up in order to get in to contact with new people. It is provided by a private company and targeted people above the age of 40. Using the site requires a monthly membership fee. [Senior Link 2009]

Elements

- Personal page
- Find people
- Calendar
- Contact adds
- Proposals for experiences
- Chat
- Debate
- Buy/sell

+ Advantages

- Free access
- Very useful to follow people and their activity
- Provides inspirational information on what is taking place

- Disadvantages

- No entry restrictions - open to everybody
- Does not necessarily lead to a physical interaction of people
- Requires frequent log on for good benefit

+ Advantages

- Targeted to seniors
- Payment required - leads to more serious and interested users
- Experience arrangements and contact adds can lead to physical encounters

- Disadvantages

- Mostly has relevance for people searching for a friend/partner
- Payment required
- No log in restrictions apart from payment

Fig. 1.11: Logo of Ældre Sagen Netværket [Ældre Sagen 2009]



Description

Netværket is a Danish network site for personal entertainment and to use for getting in contact with others. Ældre Sagen's network requires membership of Ældre Sagen in order to use it. It is provided by Ældre Sagen in collaboration with a web company. [Ældre Sagen 2009]

Elements

- Bulletin board
- Buy/sell/trade
- Debate
- Good advice
- Contact
- Genealogy (family tree)
- Sudoku
- Network groups

Conclusion

All of the analyzed network sites have good elements to offer, such as the applications referring to interaction on a local level. Those platforms facilitate horizontal knowledge sharing among users, which would be relevant for social networking of elderly. The use of personal profiles are a good way of establishing a sense of trust among strangers and can also serve for people to get to an impression about people they do not know in advance.

However the main problem is that the elderly do not have the skills to use the sites. Furthermore many seniors are very skeptical about putting their personal information online on global networks for everyone to see, so in that way Facebook and Twitter are not of interest for them. The two Danish sites are more restricted of access, but here the main problem is probably that the elderly do not know about them, and are not being motivated to use the by e.g. family, as they are not in the target group for these networks and therefore not know of it.

+ Advantages

- Restricted to members of Ældre Sagen - creates feeling of safety
- Few functions - easy to overview
- Font size can be enlarged - easier to read by seniors
- Content can be set to be restricted for only members to see or public

- Disadvantages

- Restricted for members of Ældre Sagen - leaves many seniors out
- No profile - too little information about people
- Few users - low interaction and benefit

Social networking mechanisms

Some of the ways of social networking in the web sites were found relevant for elderly. Therefore it is described in the following how the mechanism of social interaction work in these sites, held up against regular physical networking, which the elderly are familiar with. This in order to try to find similarities and differences, as well as positive and negative aspects of both types to use in the project development.

Face to face communication

Establishing new relations and interacting with people in the old fashion sense is done by means of verbal communication, regarding topics of mutual interest. However, the ability to speak is not alone sufficient to communicate. The interaction lies under for a range of rules of social interaction regarding manners, courtesy which often can be culturally defined. Many of these rules are implicit and both difficult to understand and master.

Implicit rules of interaction:

- Understanding body language
- Understanding the unsaid
- Know when to say what, e.g. when you know somebody enough to ask for a favour

One to one communication/personal

Face to face interaction most often is performed in a small group or one on one. And one of the difficulties in face to face interaction is the fact that it is often one on one. This mean that if you engage conversation with somebody you do not know, you show a direct interest in that one person, in order for this to go well this also requires different things:

- Personalities have to match
- Conversational skills (one must be able to keep a conversation going)
- Personality (has the drive to engage interaction)
- Self confidence

Closeness/formal

If the attempted engaging of contact fails, the rejection can be hard to face, awkward silence is uncomfortable.

Web 2.0 communication

When establishing contact online, a different set of rules applies. These are explicit rules, as the implicit are impossible without the face to face contact. Communication is mainly performed through writing, and in some cases it can be said to be easier to communicate by the computer.

Explicit rules of interaction

- Almost all the communication is in writing, which means e.g. there is no body language to understand
- Sites have an overall defined purpose of the interaction of the specific site, so the risk of contacting somebody who are not interested in the same thing you are, is lower than when face to face

One to many communication/impersonal

One of the main differences between physical interaction and virtual communication is that the virtual often starts out as one to many and then can evolve into one on one communication. This means that:

- A request for something can reach many people which means larger possibility for positive feedback
- You don't have to be at the right place at the right time

Distance/informal

- Communicating through the computer makes the communication seem more informal
- Due to the openness of the networks communication also seem more impersonal, which leads to more outgoing communication of people than what would be done in real life
- It is easier to contact people as it is not face to face, and rejection is easier to overcome as well
- No awkward silence

Due to the virtual distance between people, also problems occurs, e.g. people can pretend to be someone they are not.

Finally, if the virtual contact leads to a physical encounter the rules of face to face interaction of course apply, however a common ground of interest an knowledge about one another on beforehand, can make the first physical meeting easier.

Target group definition

The target group was in phase 0 defined as elderly people, referring to the broad group of seniors after retirement age and associated with the rest of the life. All the analysis phase clearly pointed out the need of making a sub division in the original target group. A new categorization has been made, dividing the group into active elderly and weak elderly. Even this is a rough generalization as the group of elderly consists many variations within this division.

The division can be related to the specification of life into four ages as defined below.

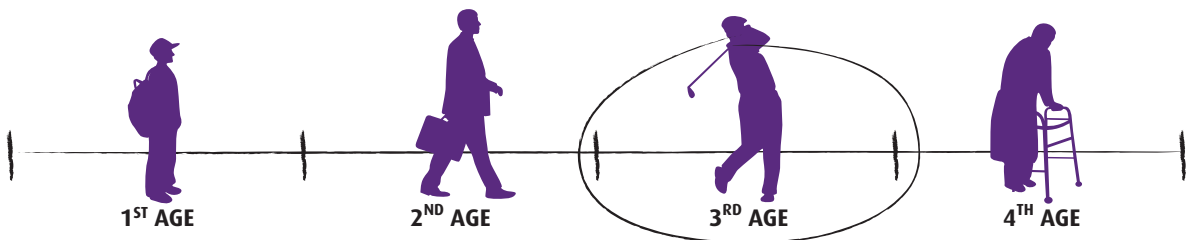
First age: a period of life associated with dependency, immaturity, education. Infancy and adolescence.

Second age: the so-called adult stage devoted to family and career. Period of maturity, independence, economic activity.

Third age: a period of creativity and personal fulfillment after retirement from work but before infirmity. Active people who are healthy and can live an independent life without help from the health care system. The young-old.

Fourth age: a period characterized by illness, physical and mental decline, and death. People who are weak and are dependent of care from others. The old-old.
[Whittington 2008] [Reboul 2009]

Fig. 1.12: Focus on third age on human life



Users

After a broad range of elderly have been interviewed and understood, some considerations have been done to narrow down and define the target group better.

Abilities

The people in the third age have relatively high physical and mental capabilities. It can be said that the elderly on the target group keep a high percentage of their full ability, for instance mobility, hearing, eye sight and memory.

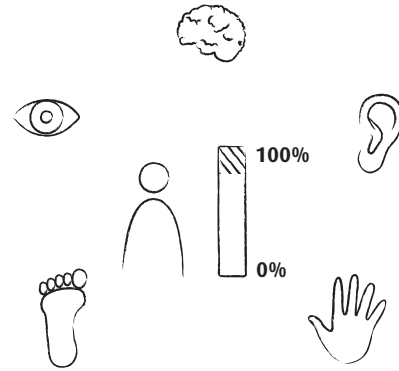


Fig. 1.13: Abilities of the target group

Mapping the scope

With the aim of having a better understanding of the users, two mappings have been done. Many characteristics can be compared in a map, but skills and quality regarding social networking and skills and motivation towards technologies have been seen as the most relevant ones for the project.

Fig. 1.14 maps the quality of the social network (strong/weak) and the attitude of the elderly when socializing (outgoing/reserved).

In this case a very reserved person with very weak social network, that in a way can be alone by choice, is out of scope.

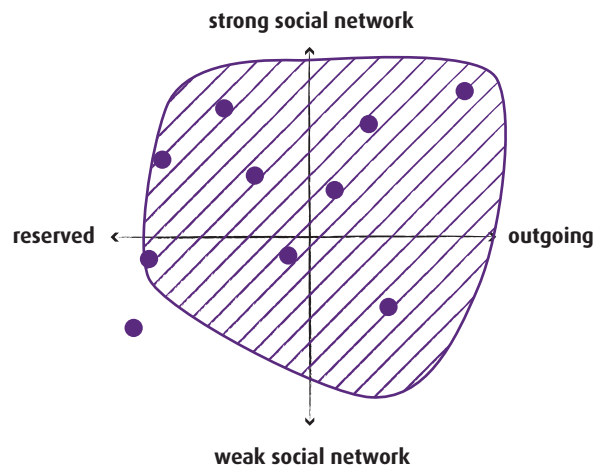


Fig. 1.14: Social network quality and way of socializing

Fig. 1.15 maps some of the interviewed users by their skills regarding information and communication technologies (high/low) and the motivation (high/low) they have for learning.

The hatched area defines the scope of users. People with very low skills and very low motivation to learn, for instance a very old person that does not want to learn and does not see the point on it at all, are out of scope.

There are aspects that have not been mapped but are relevant. It is important to state that most of the people interviewed were attending activities or volunteering, and their social network seemed to be relatively strong. Anyway, their social well being can be affected by need of recognition, help or sharing interest, regardless the quality of their social network or skills.

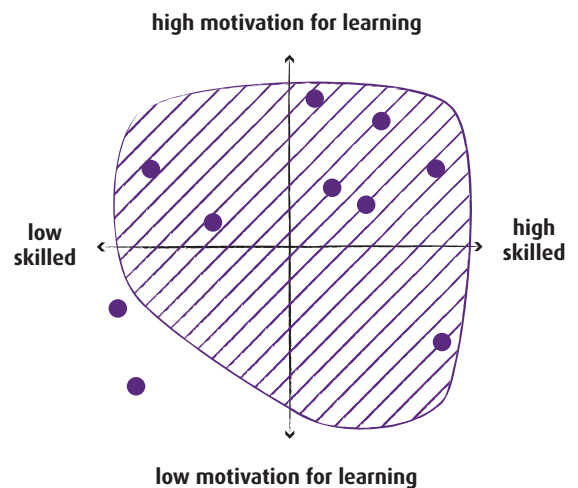


Fig. 1.15: Skills and learning motivations of technologies

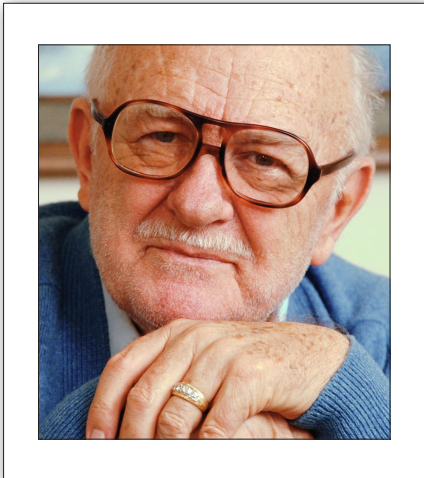
Personas

In order to make a simplification of some of the different types of users to take into account when designing the end solution, some personas have been created representing the target group.



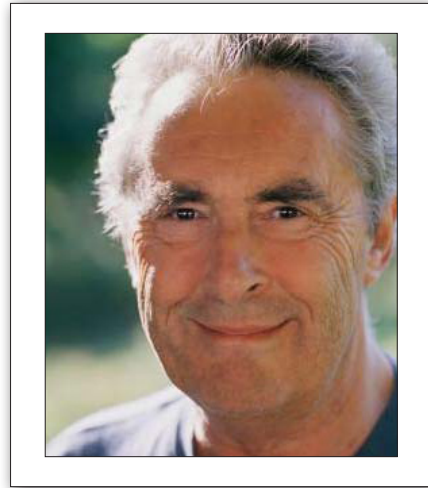
Anna Andersen

Anna's everyday life nowadays more or less evolves round her husband. Her children and grandchildren live far away and as well as her friends, since she moved to the city. She has never use a computer and has never considered buying one.



Ove Norgaard

Ove's main interest is writing stories for of the past for his children and genealogy. He enjoys talking about them and listening to other seniors. He used to write them in a typewriter but he joined an IT course and he is learning to use the laptop he recently bought. He is 86 and he is a bit reserved as a typical vendelbo.



Emil Jacobsen

Emil is a handy man that used to work as a carpenter and got retired some years ago. He is 69 years old, is happily married and has three children. One of them is living in South America and he learned some internet basics in order to communicate with her. He likes hanging out with his friends, specially in the weekends, when they go on day trips around Denmark.



Else Skinnerup

Else is 67 and is very active. She loves healthy and organic food and exercises as much as she can. She got divorced and lives alone in a cozy apartment. She very skilled with computers due to her former job as a banker.

Fig. 1.16: Personas

Problem definition 2

The problem statement we defined in the end of phase 0 was stated like this:

How to co-create a solution that improves the social well being of elderly?

After a more thorough insight in the life of elderly of Aalborg and based on the findings of the analysis phase, the problem definition was further specified.

The well being of the 3rd age people is thought to be improved by strengthening their social network. This will not only contribute to their everyday life but also will prevent them from getting to the 4th age.

The research on emerging technologies and social changes derived pointed out the benefits of the second generation web development in social networking. The project will explore and exploit the opportunities that Web 2.0 platforms could have for the ageing population.

Problem statement

How to co-create a Web 2.0 based platform with and for seniors, which can serve to strengthen their social network?

System requirements 2

- Be realistic for implementation in present and near future
- Create a positive social change in the ageing population, towards a more sustainable society
- Relate and focus on the residual capabilities and skills of elderly
- Be developed through a co-creation process
- Be developed for Aalborg, as this is the context we have better access to

More system requirements

Apart from the previous requirements, after the research and analysis phase new ones have been defined. The solution should:

- Be targeted to 3rd age elderly
- Strengthen social network
- Consider the opportunities that Web 2.0 and social network sites offer

Phase 1 reflection

The research and analysis has shown both problem areas and opportunities to work from.

As there has been no service or product as such to redesign and interview the elderly regarding it, the interviews and observations with users were based on finding out how their existing situation is regarding networking and use of technology.

Compared to experiences from previous projects the interviews have been somewhat different. More time was invested in them and the questions were personal and not as focused on a specific subject. This also caused that the interviews were often led to topics concerning their own interest, which was very positive for the analysis and relation, but required a later process of finding the core information. The interviewed users constituted a user database to use in further process.

Had the focus of the project been further defined at the point where the interviews were carried out, the interviews could e.g. have been more specifically targeted the barriers of Web 2.0 applications.

As Aldre Sagen and the activity centre Kastanjegården are the primary contacts, it is important to keep in mind that we mostly got the viewpoint of users of these places.

It would have been optimal to be in contact with elderly attending activities elsewhere or spending their time in other things, but due to the time constraints, this was not possible.

The attendants of the activities we have been to are mainly women. Anyway, a larger share of women are using the activities in general.

As far as possible it will be attempted to have a male input during the further process of user involvement and co-creation to be sure to keep this aspect in mind.

The knowledge and information obtained through literature and by interviews supplemented each other, and interviews helped to get a deeper insight in the life of the elderly, from which a target group could be defined.

As designers we are neither anthropologists or sociologists, and the methods used are quick and simplified versions of the methods of those. This means we get an insight but on behalf of our chosen focus and ideas. Due to the sociological scope of the project, we are in an unknown territory, and one can not help think if the insight obtained is sufficient.

However the involvement of users can hopefully help to verify or dismiss theories and ideas along the way, in order to come to a solution that has social value to the target group.

In this phase the focus is on developing values and ideas for the overall concept as well as testing the ideas with users. Primary methods are workshops and prototype testing.

phase 2: concept development

Initial idea generations

Alongside and after performing the research and analysis, ideas for the service concept were generated. Some of these ideas and the generation process are presented in the following.

Even though the ideas were created all along the way, three main steps can be mentioned:

- Crazy idea day
- First solutions to problem statement
- Idea filtration

Some different exercises were performed based on first doing a range of word associations. From that the found words were combined e.g. in groups of three, used in "What if...?" sentences, and "What would X do for elderly?" questions and the use of certain objects for solving a problem. For these different statements ideas were generated.

The sketches below display a few of the ideas from the day, all of which were kept for later inspiration.

Crazy idea day

In order to think out of the box and take advantage of the fuzzy perception of the project at very early stages of the process, a day was dedicated to idea generation. The only focus of the ideas was that they should be targeted as solutions for elderly people, apart from that everything was valid.

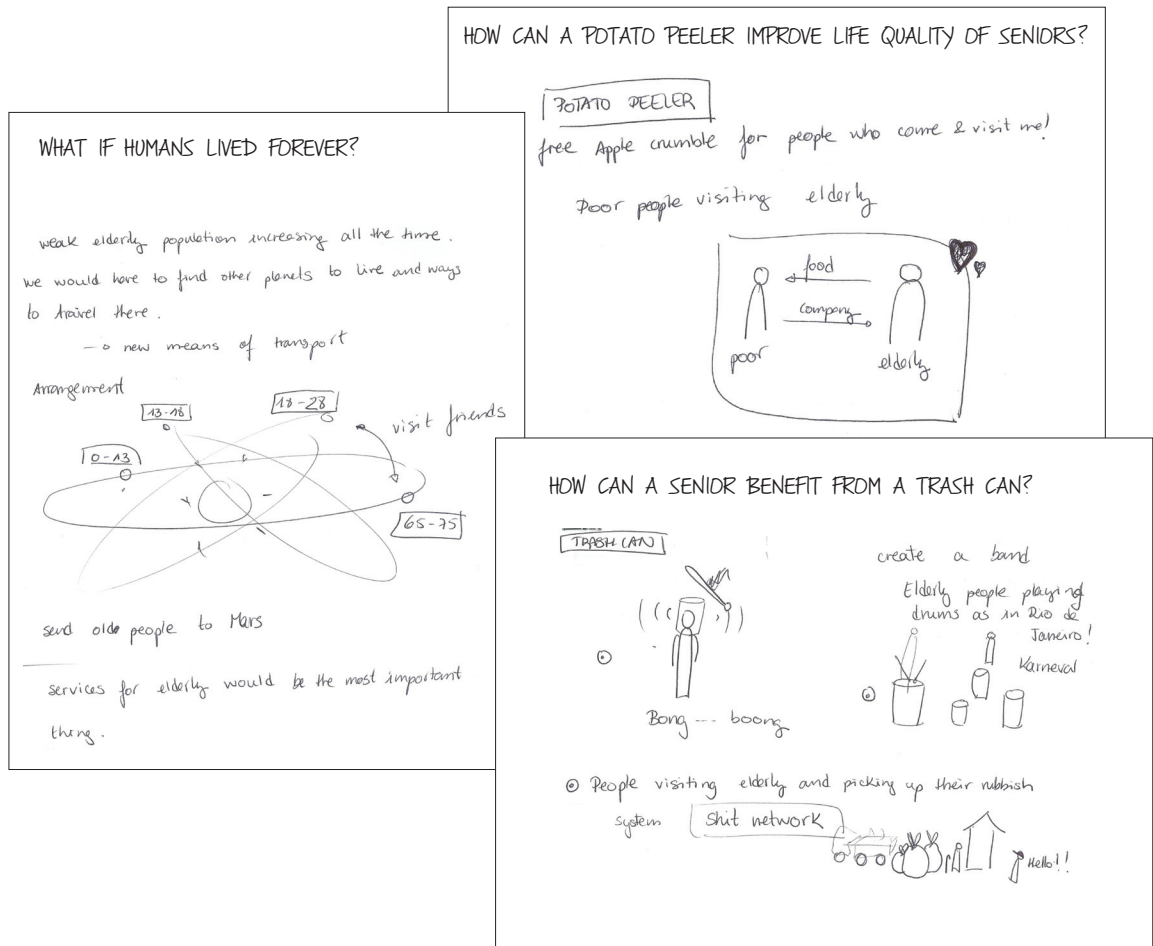


Fig. 2.01: Sketches from crazy idea day

Later in the process ideas, associated to social and technological opportunities and problems which were found during the analysis, were generated and documented in rough sketches.

The previous ideas regarding the chosen focus were grouped and thought further. A fast evaluation was done according to the relevance in solving the defined problem an service requirements, and most interesting ones were kept to use as inspiration material for the later co-creation with seniors.

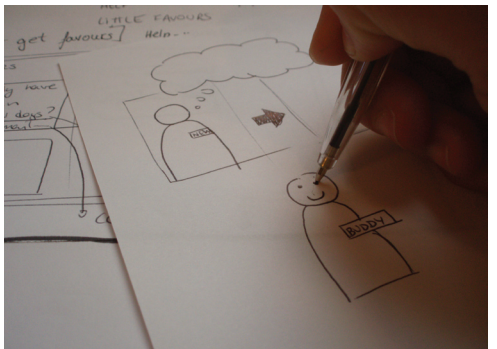


Fig. 2.02: Making sketches for the 10 ideas

Workshop 1 - idea creation

Intention

A first workshop was arranged with a group of seniors which we came into contact with during the performed interviews. The aim of the workshop was to define what a social network represents for seniors and try to generate some ideas on how to improve it. The workshop was attempted structured in a way that could give the opportunity to listen to ideas and get feedback from the senior, while encouraging them to get involved in the co-creation of the project.

Preparation

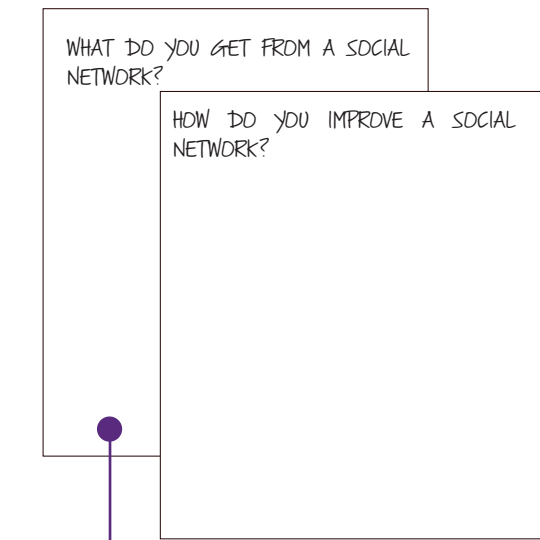
In order not to have to start the co-creation from scratch, ten ideas were prepared prior to the workshop to facilitate further idea generation and discussions. It was decided to represent the ideas in small cards to give a sample of it to all of the participants so that they could make their personal comments and improvements on them.

Fast hand sketches explained briefly the rough ideas alongside short written description. The ideas were suggestions for improvement of social network by short scenarios explaining the functionality and value of each idea. They were, as far as possible, presented without defining an underlying technology, to try to avoid that the participants would stick too much to the pre-made idea or dismiss it due to the unknown technology. Each card had a blank part, inviting participants to make notes next to the ideas.

Apart from the main card material, an short presentation was also prepared for the workshop. A simple flip chart was used and some ideas and diagrams made it visual. Sheets for brainstorming were made as well.

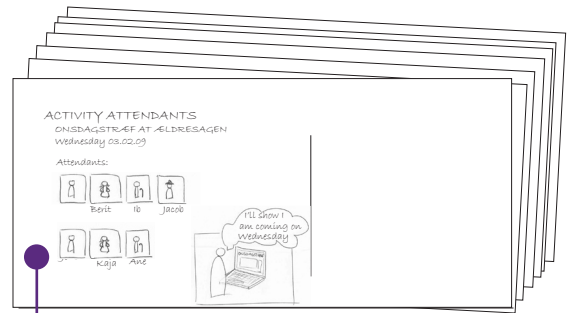
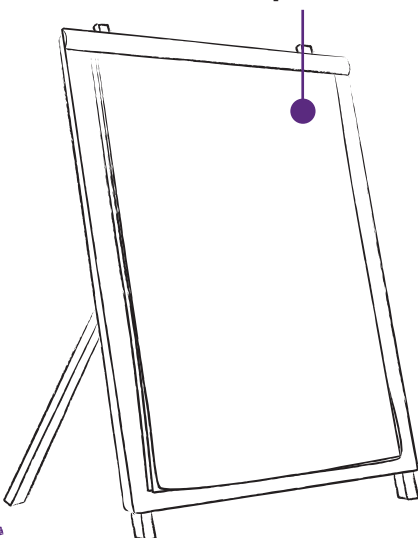
Workshop material

The following illustrations show the material used in the workshop.



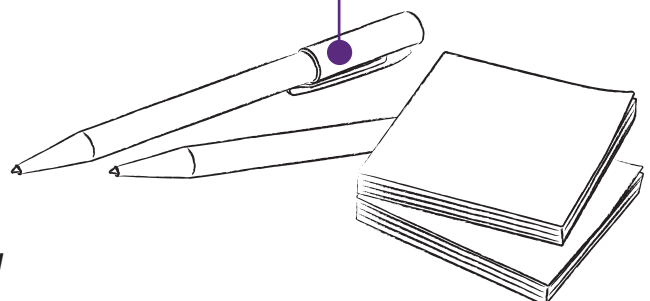
Large sheets for brainstorming

Flip chart



10 idea cards and blank cards for new ideas

Pens and post its





Procedure

The co-creation team gathered was a multidisciplinary group of 6 people above the age of 65, with different backgrounds and motivations for the project and then the project group.

The workshop was planned to last 2h and was divided in different parts:

Presentation

Introduction to the project, project process, aim of the workshop and the problem statement were presented in a flip-chart.

Brainstorming

All the participants brainstormed on two questions:

- What do you get from a social network?
- How do you improve a social network?

Idea development and discussion

With the help of the cards each pre-made idea was presented shortly and then the participants had some minutes to think about them and write down their ideas and impressions. Each idea was commented and discussed aloud among all the members. The same procedure was followed with all the cards.

Conclusions

Finally an open discussion was made about all the workshop. Each participant picked a card to talk from. The workshop was finished off with some reflections.

The workshop was tape and video recorded for later analysis. However, technical problems occurred so not all of the session was video recorded.

Outcome

Brainstorming

The outcome of the two performed brainstorms are presented by Fig. 2.05.



Fig. 2.04: Pictures from the workshop

Fig. 2.05: Outcome of the brainstorm

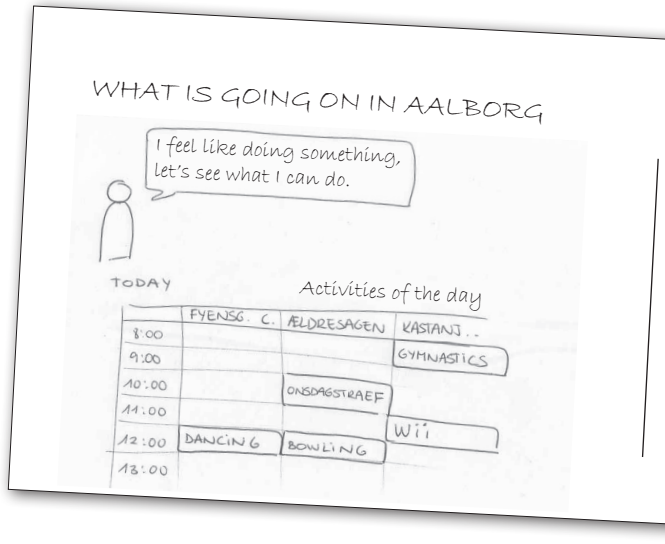


Idea development and discussion

The ten pre-made idea cards are explained in the following alongside the main ideas and discussion points from the participants for each of them.

What is going on in Aalborg

- Keep seniors informed about all the activities going on in Aalborg. A place collecting activities of many different places and displaying them clearly.



Existing solutions:

There are already ways of getting information about activities: newspaper, local channel on TV, booklets in each activity centre/organization.

Idea1:

Provide the information by "Senior Radio" or "Aalborg Plus".

Cons: a pen and paper are needed to write things down. "If you do not catch it, you miss it". Information must be updated everyday, and the costs are very high.

Idea2:

Search criteria could be own interests (themes), free activities, no need of signing up in advance.

Idea3:

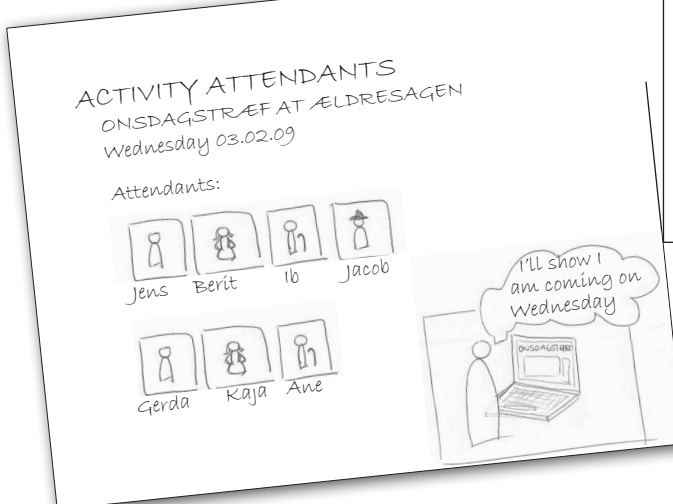
Show the activities on a map and contact information of a person linked to the activity.

Key issue:

Information is required, but where to put it, in order for users/elderly to see it? How to reach the highest amount of people?

Activity attendants

- Know who is attending an activity before deciding to go. Be able to get in contact with people who attended a specific activity.



Existing solutions:

There is the possibility to sign up on the phone, but it is a one way communication. Users can not know about who is attending.

Benefits:

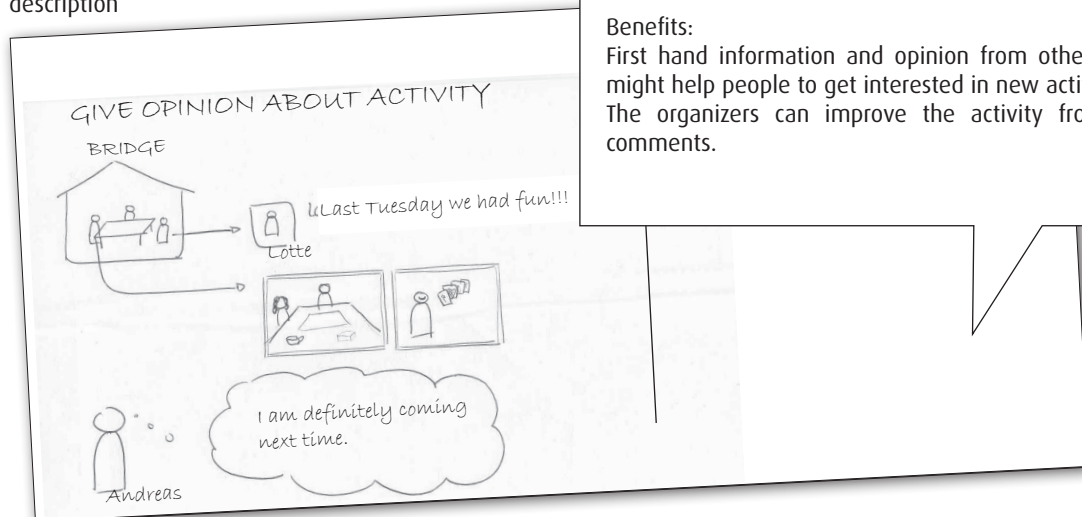
This could bring organizational benefits, because it would be easier to arrange activities.

Knowing who is attending can help to decide to go or not.

Once people have met somebody in an activity, one could check the name.

Give opinion about activity

- Opportunity to comment on an activity to improve it, to get the attention of more people or to give ones opinion. Show pictures to get more qualitative description



Existing solutions:

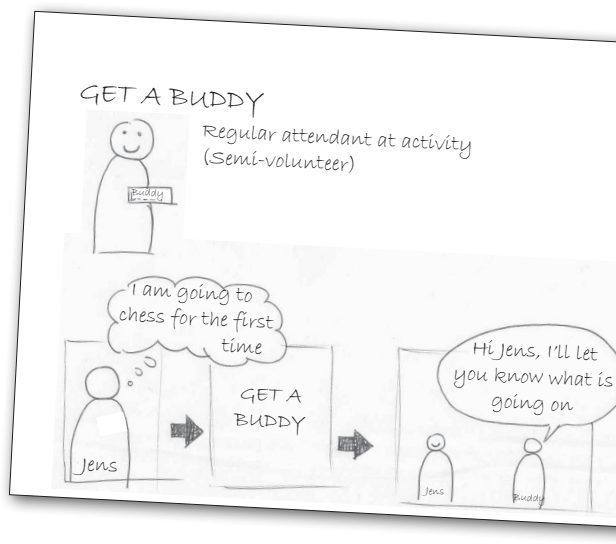
There are similar solutions such as big posters with description of activities, pictures... (e.g: in "Huset"). It requires to go there and check it (detect the need, feel motivated to do something and seek for information).

Benefits:

First hand information and opinion from other users might help people to get interested in new activities. The organizers can improve the activity from the comments.

Get a Buddy

- A person familiar with an activity shows a new comer around and makes the introduction smoother and less awkward.



Benefits:

When people attend activities for the first time, it is very important that they feel welcome. But due to the fact that there are lots of "closed" groups, sometimes the beginning might be hard. It is a great idea that somebody who often attends the activity introduces new people to others and shows the place to them.

Idea1:

It can be done easily, but people need to know about the opportunity to do it. It can be shown in the magazines "Det sker" and "Dit blad". They will try to implement it in some activities that Ældre Sagen provides.

Idea2:

If the signing up is on a web page, the chance to choose a buddy should be shown there and the buddy and the new friend should meet or have a talk.

Help market

- Opportunity to offer and get practical help from other seniors.



Existing solutions:

The organization "Ældre hjælp ældre" does similar thing.

Benefits:

Elderly trust elderly.

Key issue:

Providing and receiving help has value, and they would do it. But on the other hand, lend/borrow objects is not a good idea.

"What if you don't get it back?"

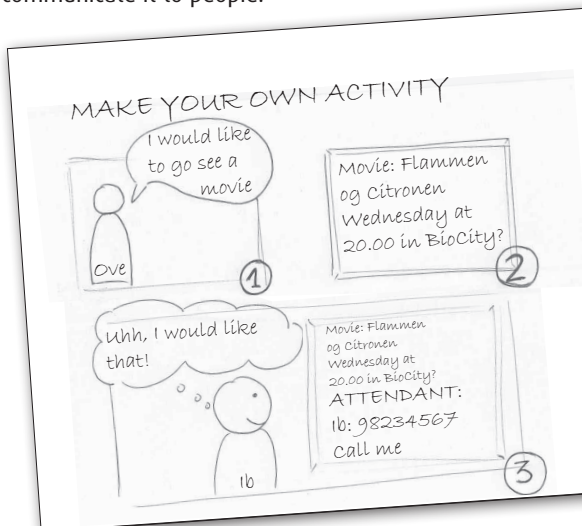
"I would not lend my drill to anybody, but I would go and make a hole for somebody with my drill".

Trust is a big issue. They should know each other, or somebody should recommend him to you.

"He is a good guy, you can trust him".

Make your own activity

- Become creator of an activity and be able to communicate it to people.



Benefits:

This idea is good for activities that do not exist on activity centres (e.g: art museum arrangements, theatre, opera, personal encounters...)

Idea1:

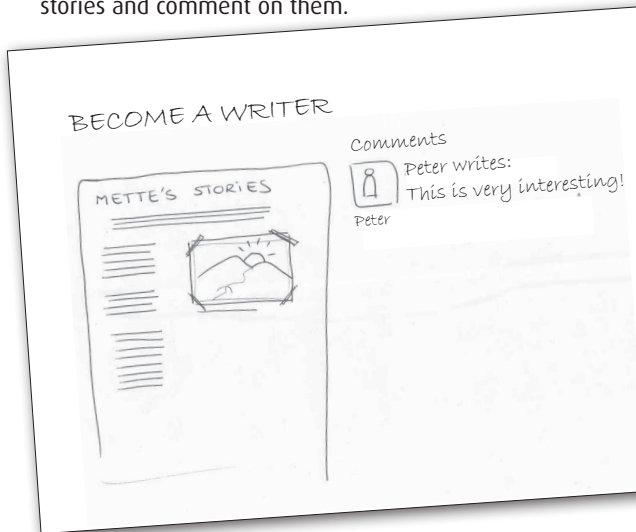
Priest know a lot of lonely people and have the ability to convince them to get out more. They should suggest people to be more active and post their activities to meet new people.

key issue:

How personal can this be?

Become a writer

- Share your stories with other seniors. Write or read stories and comment on them.



Existing solutions:

People are meeting and telling their stories to each other in many places.

Oral transmission (Nørresundby)

Fortidens vidner (Ældre Sagen)

Story telling (Kastanjegården)

Idea1:

Create a life book to show it to children and grandchildren.

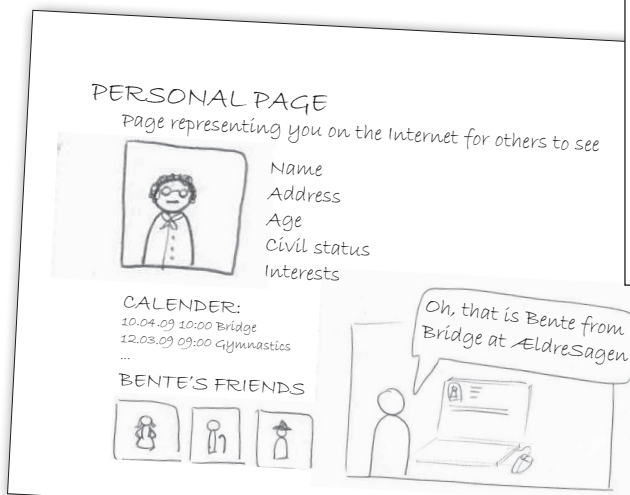
"It is important for them (children/grandchildren) to know."

Key issues:

Elderly enjoy the discussion of the stories. They like getting feedback from others and listening to other stories, because it helps them remember more things. It is inspirational to hear memories of others. There are many elderly interested in the past.

Personal page

- Tell other seniors about you and know about them through personal data, interests, pictures etc.



Benefits:

The personal page is good to define oneself. Writing about skills gives satisfaction to elderly.

It is a good way of knowing about others before meeting.

Having a personal page creates trust.

It can help to remember names and know a little bit more about people.

Idea1:

All the people with personal pages could be shown on a map.

Idea2:

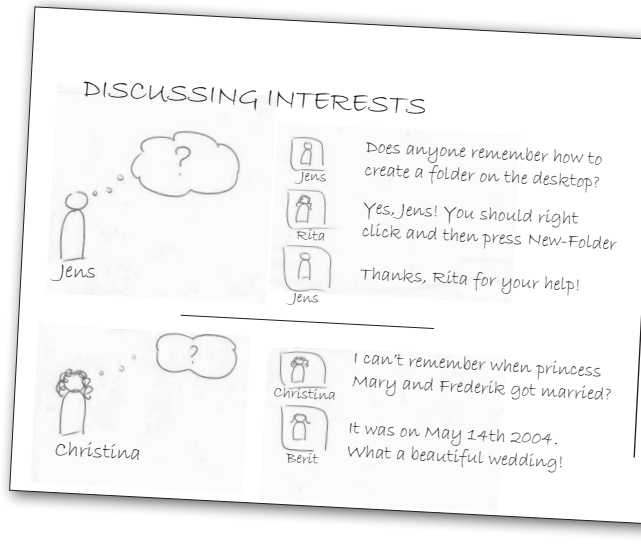
There could be an access code provided by the organization, so that just members could see the pages

Key issues:

The network must be safe and must give that impression, because safety is a big issue for elderly.

Discussing interests

- Discuss topics of interest to you with other people.



Benefits:

Practical pieces of advice from one elderly to another are very useful.

Existing solutions:

There are similar things on the internet (e.g: forums, Ask Alex...)

Key issues:

Organizations are already providing some kind of help on the phone (e.g: IT related questions in Ældre Sagen). These do not want to be replaced.

How to get people interested

- What is the best way of getting people interested in the service and motivated take initiative to improve their social network?



Key issues:

It is a very hard job for people to take the initiative. If they are not motivated, how can it be created? Is it even possible?

Some elderly have a negative attitude and spend the day complaining. Furthermore, they are usually stubborn, so it is difficult to talk to them.

Conclusions

In the final discussion some ideas were picked by participants and evaluated.

Ideas	General comments
<ul style="list-style-type: none">· WHAT IS GOING ON IN AALBORG? ✓· ACTIVITY ATTENDANTS ✓· GIVE OPINION ABOUT ACTIVITY· GET A BUDDY ✓· HELP MARKET ✓· MAKE YOUR OWN ACTIVITY ✓· BECOME A WRITER ✓· PERSONAL PAGE ✓· DISCUSSING INTERESTS· HOW TO GET PEOPLE INTERESTED?	<ul style="list-style-type: none">· It could be good to get all the information about Aalborg easily· Know about who you are going to meet and who you have already met + sense of belonging· Smooth introduction to new environments is good· Not with objects/yes with favours (trust issues)· Very nice to meet people with same interests· Fun, recognition and respect· Who am I?

Reflections

The workshop was very useful to get some first hand information from the seniors. The following are the main achievements:

- Direct values from elderly about social networking by asking what it means to them and what they get from it. This is helpful to define the values of the system.
- First feedback on the fuzzy ideas proposed
- New ideas coming directly from elderly
- Personal opinions related to their own experiences and context
- Perspectives and reactions on relevant/irrelevant issues that we are not able to predict.

During the meeting some problems emerged, which should be taken into account in the further co-creational process. These problems were especially regarding the use of terminologies. E.g. social network was not a term that all of the participants understood in the same way. It is very important to clarify the used terms in order for all to be on the same page and from that be able to create the best possible outcome.

Language in general is a big issue in co-creation. The way the ideas are explained changes the perception of them a lot.

The small drawn scenarios served well for the participants to grasp the idea right away. Nevertheless, they found it hard to put their thoughts and opinions in writing on the cards, even though they were told to do it more times. They preferred an oral discussion instead.

If the ideas of the presented material are too detailed, the participants have an easier time understanding them. However the participants then tend to stick too much to the ideas instead of developing them further. When presenting more fuzzy ideas, they tend to focus too much on thinking of a solution for how it could work in reality, and by which technology. A middle way of representation is therefore the best.

It was interesting to see that one of the ideas, "GET A BUDDY", was perceived so good and easy to implement, that some of the volunteers of Ældre Sagen have planned to try to implement in some of the activities offered. We will attempt to keep track on this development, and see how it evolves.

While doing the workshop the participants got to know many things that are going on in Aalborg from each other that they never heard of before, which they appreciated a lot. They also got to know each other and found similar interests even if they were very different.

Technology, more specifically computer science, is not a part of the daily life routines of the seniors as much as it is in ours. The differences in technology embedment should be carefully taken into account, because terms and opportunities are not always obvious.

Furthermore one should be careful about mentioning, computers in relation to the ideas, as the ideas then tend to be rejected.

One criteria for choosing participants for the workshop was that they were able to speak english. This put some limitation to the range of people to choose from but it was decided in order for both members of the design team to be able to participate actively. We are aware this made sufferings in other areas.

Values of the system

In order to define the concept further the values of the system were defined. This was done based on one of the brainstormings in workshop 1, which helped for gathering information about what elderly get from their social network. Another brainstorm was done based on the previous one. From that the upper levels of Lerdahl's pyramid was considered, representing the value mission and the interaction vision.

What? - Value mission

The system is going to provide the users the following main values:

- CONNECTION - the system is connecting elderly
- SHARING - the system allows information/knowledge sharing and communication

How? - Interaction vision

The system will reach the aim by the following behavioral characteristics:

- ENABLING - the system is enabling users to help themselves
- TRUSTWORTHY - the system is trustworthy so the elderly can feel safe using it
- EASY TO USE - the system is simple to use so it relates to the skills or lack of those of the users

Meta-values

Even if the purpose of the system was described by the values on top of the pyramid, a need of defining some meta-values was detected, referring for the elements required in a strong social network, as defined in phase 0. The system can not ensure these values, but they are values that will seek to reach:

- ENTERTAINMENT
- RECOGNITION
- FRIENDSHIP
- INTEREST
- CARE

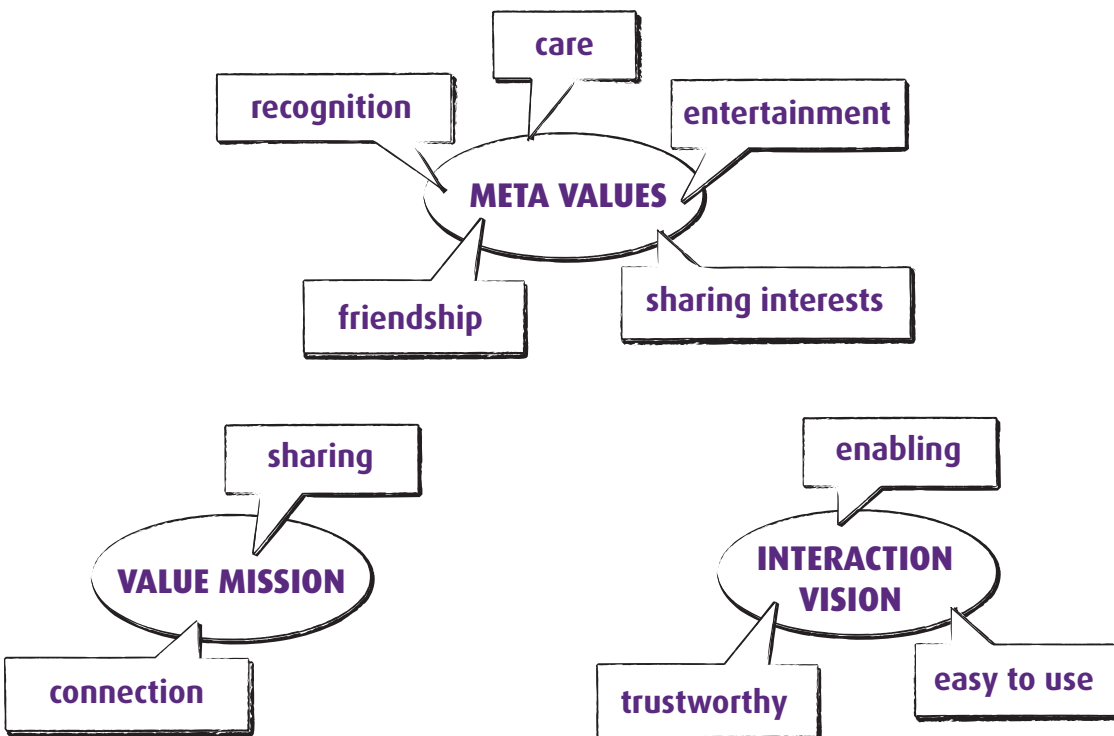


Fig. 2.06: Values of the system

System requirements 3

In the following the system requirements are summed up after the new insights obtained from the idea creation workshop.

The developed system should:

- Be realistic for implementation in present and near future
- Create a positive social change in the ageing population, towards a more sustainable society
- Relate and focus on the residual capabilities and skills of elderly
- Be developed through a co-creation process
- Be developed for Aalborg, as this is the context we have better access to
- Be targeted to 3rd age elderly
- Strengthen social network
- Consider the opportunities that Web 2.0 and social network sites offer

More system requirements

The new requirements are the following:

- Be just for elderly
- Be based on the values: connection, sharing, enabling, trustworthy and easy to use.
- Strengthen social network by creating opportunities for: establishing friendships, meeting people of similar interest/hobbies, giving/getting help, knowing what options elderly have
- Support/encourage physical encounters of seniors
- Be based mainly on volunteer work
- Consider the ways of introducing the solution to the elderly

Prototype 1 - pin up

Intention

In order to test the ideas appealing most to the participants in workshop 1, it was decided to make an experience prototype. The point being to simulate the ideas by different mechanisms of Web 2.0 applications, but without the use of technology. The thought behind this was to see the interaction and interest of the Web 2.0 mechanisms of the elderly users, while getting rid of the technological barriers.

Preparation

Two main ways of carrying out the simulations of the ideas were thought of. Both considering small notes or booklets of papers representing the different ideas that had to be filled in and then either put up on boards or handed in in boxes. Also how to represent the different elements were considered as can be seen in fig. 2.07.

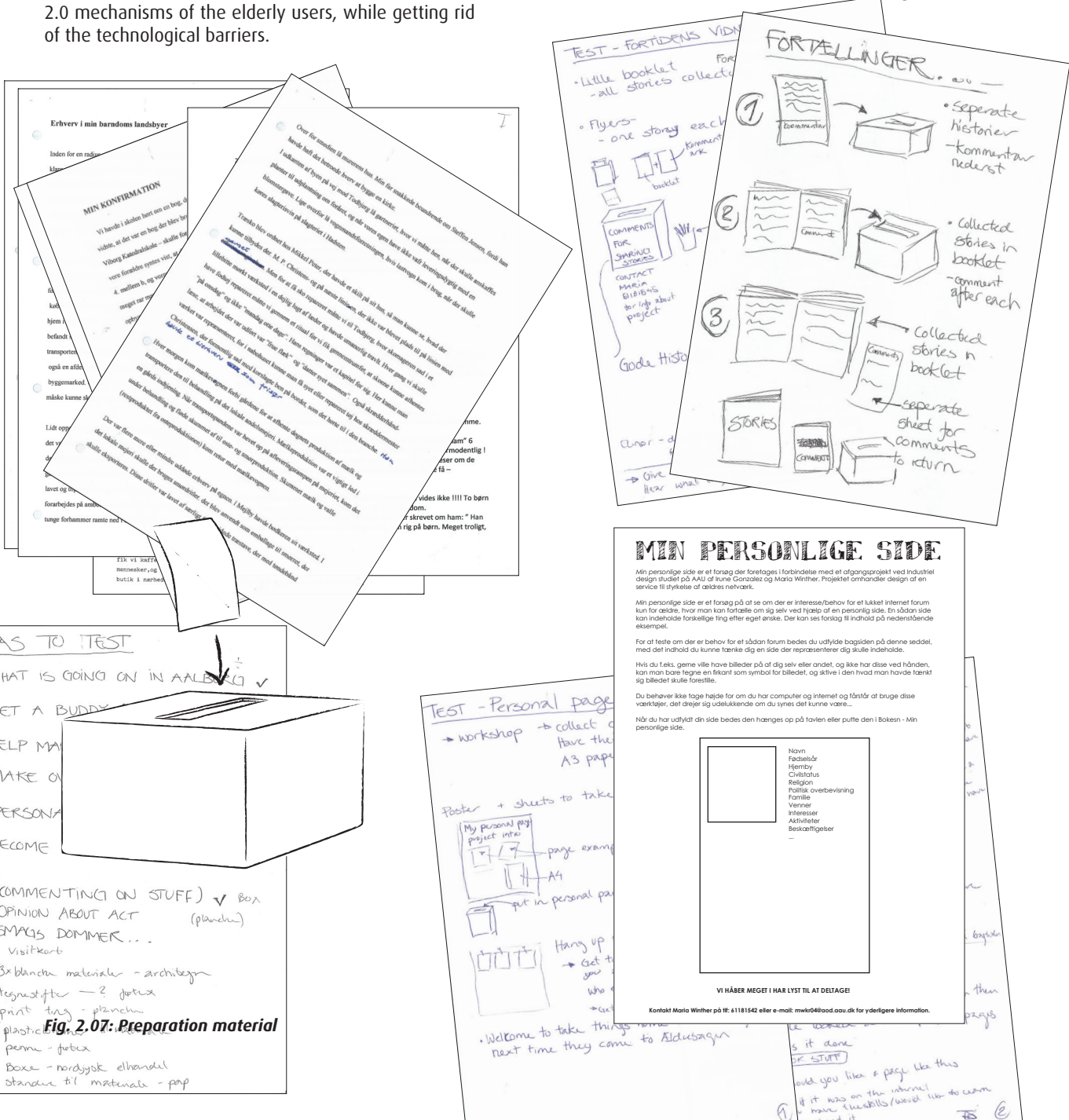


Fig. 2.07: Preparation material

TEST - MAKE OWN ACTIVITY

POSTER

EGNE-PERSONLIGE-NY

INITIATIVER

Test - make own activity

MAKE IT WORK - SUGGESTIONS + ANSWERS

Activity Name: _____

Is it?

put your

on card

se who has been

interested

have to all activity

blank or same notes

to write on end, take home

if you are interested

Semi-functional
No need for prom/magic name

put activity

call Maria

Name + number (PAC)

Give Name + number (PAC)

for activity maker

call on phone/write on internet

meet in neutral space first activity with/without

open activity (consequence) ok

Set up final meeting

1 Take a note

2 Fill it out

3 Put it on wall

1

2

3

PRO/CON

people have things/needs fulfilled

like to do

if any would respond

be willing to put suggestions

at have to put name on

1

En varm velkomst

En varm velkomst er en del af et afgangsprojekt ved Industriel design studiet på AAU af Rune Gonzalez og Maria Winther. Projektet omhandler styrkelse af netværk, og denne samling af fortællinger samt kommentar-hæfte er lavet i et forsøg på at teste hvorvidt der er interesse for at dele beretninger, og kommentere på andres forlæstninger.

En varm velkomst er en ide der forsøger at gøre det nemmere at komme ind i varmen når man starter til en ny aktivitet og ikke kender nogen af deltagerne. Tanken er at nogle faste deltagere ved en aktivitet, kan fungere som værter for nye, deltagere, så disse nemmere kan komme ind i gruppen.



På bagsiden af arklet bedes du svare på hvad du synes om ideen, og derefter aflevere arklet i "en varm velkomst" boksen.

forhåndstakt

For yderligere information om projekter, kontakt da Maria Winther på tlf: 41181542 eller e-mail: mwinther@iisb.aau.dk

TEST - GET A BUDDY

SHEET TO SIGN UP ON

- If you would consider being a buddy

- for which activity

- If you have liked a buddy

- for which activity and

Kommer du tænke dig at møde dig til at søge for nye deltagere ved en af de aktiviteter du deltog i, for en varm velkomst?

er synes du "en varm velkomst" ville

komst" hvis du skulle starte til

gør det nemmere for nye

deltagere at komme

ind i gruppen

gør det nemmere for nye

deltagere at komme

ind i gruppen

gør det nemmere for nye

deltagere at komme

ind i gruppen

TEST - HJÆLPE TORVET

POSTER

description

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GODT & SKIDT

Godt & skidt er et forslag der foretages i forbindelse med afgangsprojektet ved Industriel design studiet på AAU af Rune Gonzalez og Maria Winther. Projektet omhandler styrkelse af netværk, og denne samling af fortællinger samt kommentar-hæfte er lavet i et forsøg på at teste hvorvidt der er interesse for at dele beretninger, og kommentere på andres forlæstninger.

En varm velkomst er en ide der forsøger at gøre det nemmere at komme ind i varmen når man starter til en ny aktivitet og ikke kender nogen af deltagerne. Tanken er at nogle faste deltagere ved en aktivitet, kan fungere som værter for nye, deltagere, så disse nemmere kan komme ind i gruppen.

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Min bedømmelse

★★★★★★★★

TEST - SMISDOMMERE BEDømmELSE

- Activity
- gymnasium
- restaurant
- film/fest/projekt
- Bog
- all mellem hummel



AKTIVITETS KALENDER

WEEK	MON	TUE	WED	THU	FRI	SAT	SUN
15							
16							
17							
18							

BOARD WITH CALENDAR



Do you like it?

Do you like it?

Do you like it?



Fig. 2.08: Notes

Prototype material

Finally 6 different ideas were made into prototypes.

All material was produced in Danish in order to make it as easy as possible for the elderly to understand.

All of the 6 elements had an explanation of how to fill in the material. Each of the elements were made with different fonts for the titles, in order for it to be easier to recognise one from the other. The size of the material was made so that they could contain the necessary room for writing of the participants, and have an explanation of what to do. Still it had to be relatively small so the gathered prototype elements would not take up too much room. The overall idea of all of the elements was to have people communicating by writing something and giving others the possibility of answering them back.

In the following the 6 elements are described.

Aktivitetsskalendar

- Activity calendar ~ What is going on in Aalborg

The idea of the activity calendar has similarities to a number of different web applications such as Facebook's events.

This should give the opportunity for people to notify others about activities that are going on. It can be anything, for instance: activities from organizations or activity centres, personal events or activities provided by private providers.

The note has room for a short description of the activity, and to state the time and location of the activity.

Hjælpe-torvet - Help market

This element was made to simulate a web application like an e-bay of help.

The idea was for the seniors to have the opportunity to put offers and requests for help on the board. It can be requests or offers e.g. regarding small practical tasks such as help needed for hanging a shelf or offering to walk a dog.

On the note one could check either the request or offer box, write a description and fill in ones contact information if wanted. On the bottom there was room for other people to answer if they felt interested or could help out.

HJÆLPE-TORVET

HJÆLPE-TORVET er en form for test der foretages, i forbindelse med et afgangsprøve ved Industrielt design studiet på AAU, af Irune Gonzalez og Maria Winther. Projektet omhandler design af en service til styrkelse af ældre sociale netværk.

HJÆLPE-TORVET er et forum, hvor du kan udtrykke interesse/behov for en hjælp eller tilbyde din hjælp til andre. Du kan også tilbyde hjælp til noget, eller ønske om hjælp.

For at teste om der er behov for en hjælp, bedes du udfylde øverst på denne seddel, hvis der er behov for hjælp, eller om du kan hjælpe andre. Det kan f.eks. være du har et billede op, eller at du og gerne vil tilbyde andre. Det behøver heller ikke være et aktuelt behov du skriver, du kan komme i tanke om en situation, f.eks. kunne bruge en hjælp til at omhandle hvad som helst.

Når sedlen er udfyldt, bedes du lægge den i kassen med HJÆLPE-TORVET tavlen, så den kan ses af alle. Du kan ønskes/tilbydes og evt. få en hjælp til noget du kan hjælpe med. Hvis du kan komme på tankerne om at ønske eller tilbyde, bedes du skrive om det på hver sin seddel. Selvfølgelig kan du også svare på de sedler der er lagt ud, hvis du har da hænges nogen.

DU ER VELKOMMEN TIL AT LÆSE OG UDFYLDE.

Forsøget forløber frem til d. 24. september 2014, og ophænges inden da.

VI HÅBER MEGET DU HJÆLPER.

Kontakt Maria Winther på tlf: 61 41 41 41
mwkr04@aod.aau.dk for yderligere information.

☐ Ønsker ☐ Tilbyder

Svar:

Evt. kontakt information:

Fig. 2.09: Hjælpe-torvet notes

Godt & skidt

- Good & bad ~ Activity evaluation

This element simulated applications used to evaluate or rate services such as Just-eat and Lonely planet ratings or comments on articles.

It was for people to have the opportunity to evaluate an experience they have had, e.g. a film they had seen, restaurant or exhibit they had visited, to either recommend it or warn others about.

On the top of the note the judgement should be given and finished off with a star rating. On the bottom of the page there was room for other people to comment on the judgement, e.g. give their own judgement on their experience of the same topic.

GODT & SKIDT

Godt & skidt er et forsøg der foretages, i forbindelse med et afgangsprøve ved Industrielt design studiet på AAU, af Irune Gonzalez og Maria Winther. Projektet omhandler design af en service til styrkelse af ældre sociale netværk.

Godt & skidt er et forsøg på at udtrykke interesse/behov for et forum, hvor man kan dele erfaringer, dvs. lave en slags oplevelser man gerne vil anbefale til andre. Det kan være en god bog man har læst, en teaterforestilling man har set, en restaurant, butik, aktivitet osv.

For at teste om der er behov for en hjælp, bedes du, øverst på bagsiden af sedlen, skrive om et eller andet du kan anbefale eller om du kan komme på tankerne om en situation, f.eks. kunne bruge en hjælp til at omhandle hvad som helst.

Når sedlen er udfyldt, bedes du lægge den i kassen med Godt & skidt tavlen så andre kan se den. Du kan bedømmelsen, hvis det har den kan komme på mere end en til, du meget velkommen, men du kan hver sin seddel.

Nederste del af sedlen er beregnet til at kommentere bedømmelsen. Selvfølgelig kan du også kommentere bedømmelsen nederst på sedlen, hvis du er enig eller uenig med bedømmelsen, eller hvis du har en anden bemærkning.

DU ER VELKOMMEN TIL AT TAGE OG UDFYLDE!

Forsøget forløber frem til d. 24. september 2014, og ophænges inden da.

Kontakt Maria Winther på tlf: 61 41 41 41
mwkr04@aod.aau.dk for yderligere information.

Min bedømmelse

☆ ☆ ☆ ☆ ☆ ☆

Kommentarer fra andre:

Fig. 2.10: Godt & skidt notes

- Own initiatives ~ Make your own activity

This concept had the structure of “I’m looking for...”, which can be compared to the communication on dating sites.

This idea was to have people write down initiatives or requests for social encounters of different character. It could be initiatives for interest, for going out, dating etc.

The sheet had room for stating ones gender, a description of the initiative and to state ones contact information. On the bottom of the page there was room for other people to reply on the initiative.

En varm velkomst

- A warm welcome ~ Get a buddy

This idea was not simulating a specific web 2.0 application, but created in order to try to see the willingness of people to sign up to be volunteering to be a buddy.

Here people could write if they would like to introduce new attendants to an activity they were attending to make the newcomers feel welcome.

The note had room for writing a short description of the activity and where and when it is taking place. Also contact information could be put, so possible interested people could get in contact, apart from in writing on the bottom of the note.

Egne initiativer

Egne initiativer er en form for test der foretages, i forbindelse med et afgangsprojekt ved Industriel design studiet på AAU, af Irune Gonzalez og Maria Winther. Projektet omhandler design af en service til styrkelse af ældres sociale netværk.

Egne initiativer er et forsøg på at se om der er interesse/behov for et forum hvor ældre kan tage initiativ til at mødes med andre ældre, eller for aktiviteter eller lignende som man mangler nogen til at deltage i sammen med. Det kan også være en fil til dem som vil se, en skak- eller sangklub osv.

For at teste om der er behov for det foreslår vi dig at udfylde øverste del af denne seddel, hvis der er noget du vil tænke dig at lave, men mangler nogen til at gøre sammen med. Det kan også være en ide. Det behøver heller ikke nødvendigvis være aktuelt behov du skriver, det kan bare komme i tanke om en situation hvor der manglede selskab til et eller andet.

Når sedlen er udfyldt bedes du sende den til *Egne initiativer-tavlen* så den bliver offentliggjort og evt. kan svar komme ind. Hvis du er interesseret i at høre mere om det, kan du kontakte os på telefonnummeret nedenfor. Hvis du kan komme på mødet, bedes du give besked på hver sin side af sedlen.

Selv kan du også komme på mødet uden at have udfyldt sedlen først. Hvis du har interesse. Hvis der da hælder mod det.

DU ER VELKOMMEN TIL AT UDFYLDE.

Forsøget forløber frem til oktober 2004. Der bedes opmærksomhed inden for den periode.

Kontakt Maria Winther på telefonnummeret
mwkr04@aod.aau.dk for yderligere information.

Mit initiativ

Jeg er en: ☐ Kvinde ☐ Mand

Evt. kontakt information:

Svar:

En varm velkomst

En varm velkomst er en del af et afgangsprøveprojekt ved Industrielt design studiet på AAU, af Irune Gonzalez og Maria Winther. Projektet omhandler design af en service til styrkelse af ældres sociale netværk.

En varm velkomst er en ide der forsøger at gøre det nemmere at komme "ind i varmen" når man starter til en ny aktivitet, og deltagerne. Tanken er at nogle faste deltagere kan fungere som værter for nye deltagere, så de ikke kommer alene. En varm velkomst kan nemmere kan komme ind i den nye gruppe.

Du bedes udfylde bagsiden af kortet. Du kan forestille dig at give det til en af dine venner eller kolleger. Du bedes skrive lidt om dem, hvor og hvornår du kan kontakte dem.

Velkommen til...

Aktivitet:

Hvor:

Hvornår:

Evt. kontakt information:

DU ER VELKOMMEN TIL AT DDELTA OG UDFYLDE.

Derefter ophænges arkene på tavlen.

Forsøget foregår frem til d. 15. oktober. Du bedes ophænges inden da.

Nederst på arkene kan eventuelle deltagere den omtalte aktivitet give udtryk for interesse i at lave en aftale om "en varm velkomst" til en aktivitet. Selv kan du også udtrykke din interesse nederst på andres sedler, hvis du har lyst til en varm velkomst" til en aktivitet at afprøve.

Interesserede:

Kontakt Maria Winther på telefonnummer 33 92 60 78 eller e-mail mwkr04@aod.aau.dk for yderligere oplysninger.

Fig. 2.11: Egne initiativer notes

Fig. 2.12: En varm velkomst notes

Fortællinger om fortiden

- Stories about the past ~ Become a writer

The point of this element was to simulate the functions of a blog or a wiki, where people could share their stories and have other people commenting on them, or write something about the same topic.

This material contained eight short stories collected in a little booklet. The stories were borrowed from a group of people in Ældre Sagen who were writing down their memories. In a connected folder there was room for making comments on each of the stories and answering a few questions about ones own interest in sharing own writing. As the only element of the prototype the comments had to be put in a box instead of pinned on a board. The idea was then to return the comments of the writers of the stories, after the prototype tests were finished.

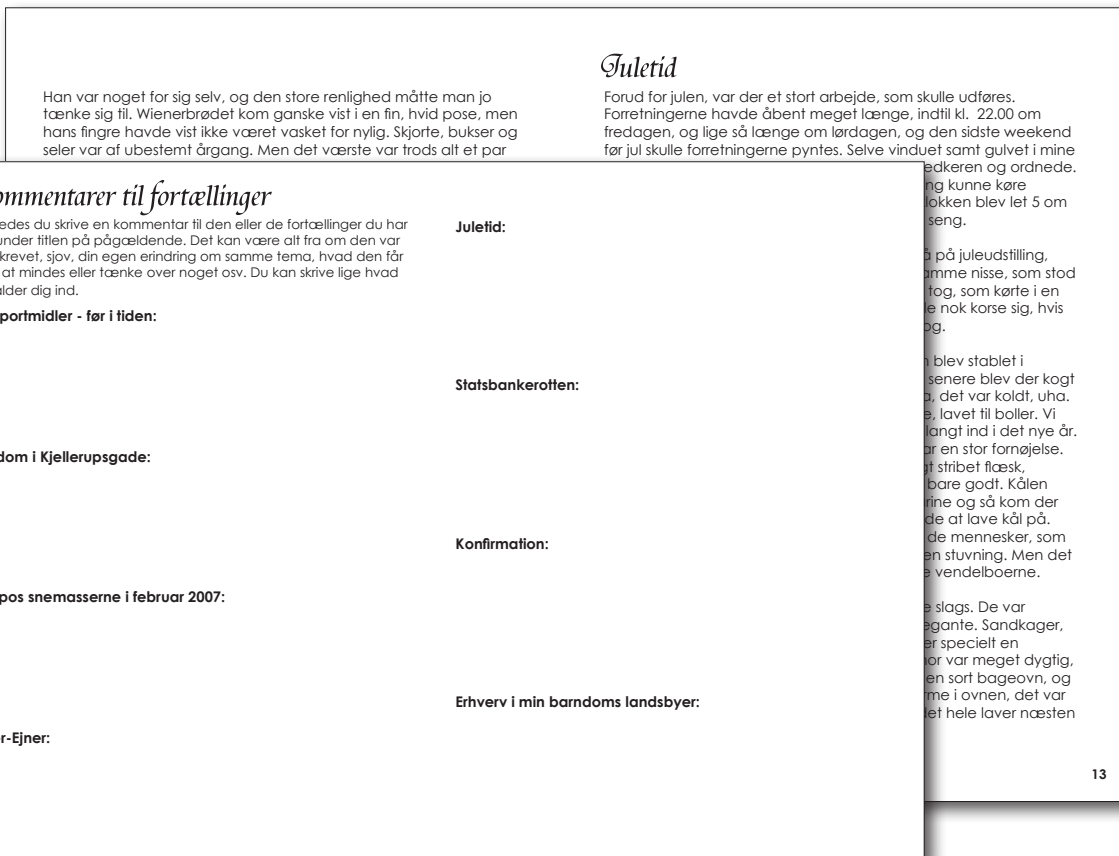


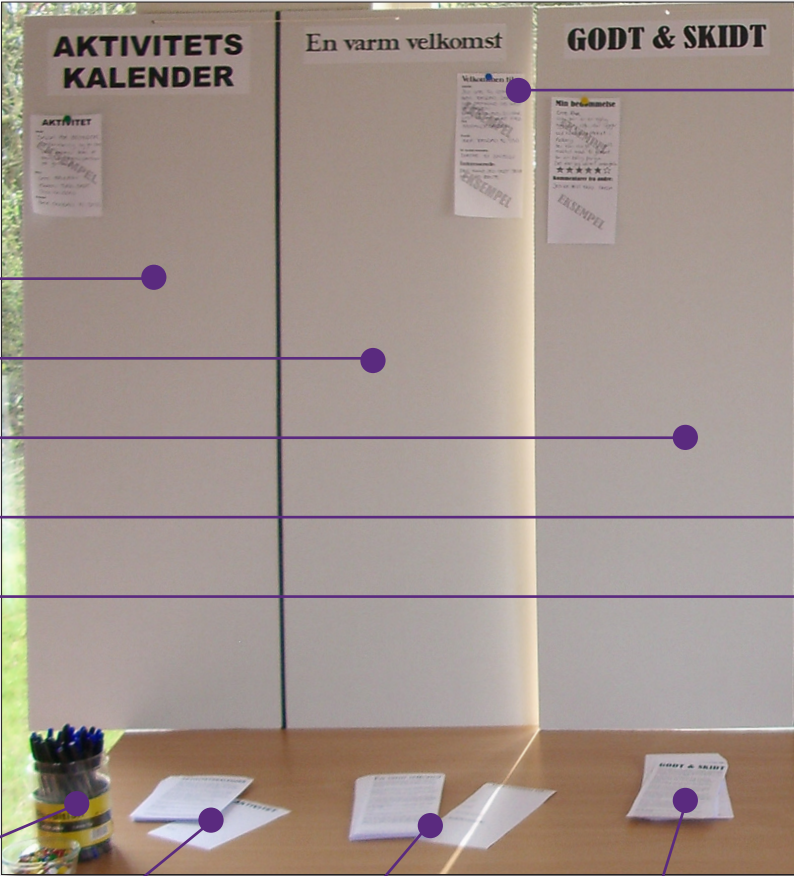
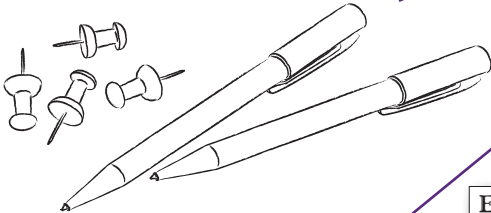
Fig. 2.13: Fortællinger om fortiden booklet and comment folder

Fig. 2.14: Content of the prototype and set up

Boards to pin up filled out notes on.

TITLE

Pens and push pins



AKTIVITETSKALENDER

Aktivitetsskalendar er et forslag der foretages, i forbindelse med et designstudie, hvor du skal designe et produkt, som du vil sælge til andre mennesker. Du kan vælge at designe et produkt, som du selv vil sælge, eller du kan vælge at designe et produkt, som du vil sælge til andre mennesker. Du kan også vælge at designe et produkt, som du vil sælge til andre mennesker, som du selv vil sælge.

AKTIVITET

Hvad:

Hvor:

Hvornår:

Kontakt Maria W
mwk@bioda.dk

En varm velkomst

En varm velkomst er et forslag, der foretages i forbindelse med et designstudie, hvor du skal designe et produkt, som du vil sælge til andre mennesker. Du kan vælge at designe et produkt, som du selv vil sælge, eller du kan vælge at designe et produkt, som du vil sælge til andre mennesker. Du kan også vælge at designe et produkt, som du vil sælge til andre mennesker, som du selv vil sælge.

Velkommen til...

Aktivitet:

Hvor:

Hvornår:

Evt. kontakt information:

Interesserede:

Kontakt Maria W
mwk@bioda.dk

GODT & SKIDT

Gode feedbacker er et forslag, der foretages i forbindelse med et designstudie, hvor du skal designe et produkt, som du vil sælge til andre mennesker. Du kan vælge at designe et produkt, som du selv vil sælge, eller du kan vælge at designe et produkt, som du vil sælge til andre mennesker. Du kan også vælge at designe et produkt, som du vil sælge til andre mennesker, som du selv vil sælge.

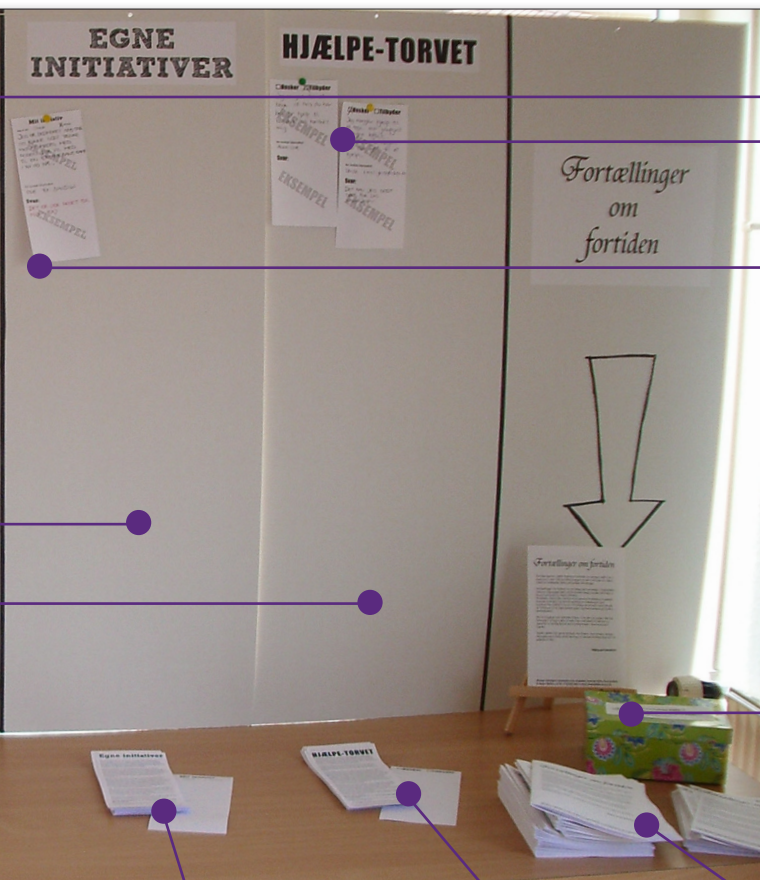
Min bedømmelse

☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆

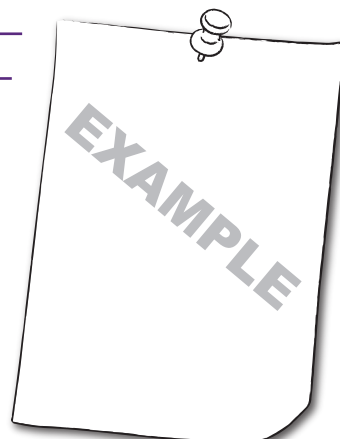
Kommentarer fra andre:

IN MED HJEM

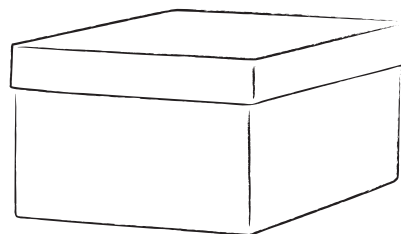
42 eller e-mail
information.



Example notes for inspiration and demonstration.



Box for comments on Fortællinger om fortiden



Egne initiativer

Mit initiativ

Jeg er en: ☐ Kvinde ☐ Mand

Evt. kontakt information:

Svar:

Det er foretaget, i
sigt ved indstillet
Gonzalez og Maria
design af en service til
voks.

Det er om der er
for ældre kan tage
til forskellige former
om man interesserer sig
efter det sammen
hæfterstykke man
er-partner man

For et sådan forum
af bagden på
er ønsket du kunne
eller nogen af gøre det
alle hvad som helst.
nådvist være et
at være da kan
fra tidligere hvor du
modet.

er i hænger op på
at kan se hvad der er
om det er noget de
siden
ind et initiativ, bedes
et

på andres initiativer
ene have din
fagen.

SEJLEN MED HJEM
op til motoret

1181542 eller e-mail:
mwe@klood.co.uk for yderligere information.

HJÆLPE-TORVET

☐ Ønsker ☐ Tilbyder

Evt. kontakt information:

Svar:

HJÆLPE-TORVET
interesseret
tage kontakt
hvis du vil
for hjælp.

For at teste
bedes du ud
denne seddel
tænke dig h
Det kan lade
et tallede op
og gerne vil
Det behøver
aktuelt behov
komme i tan
f.eks. kunne
omhandle h
Når sedlen er
HJÆLPE-TORVET
ønsker tilbyde
noget de ka
Hvis du kan
tænke dig at
lave dem på
selv kan du
sedlen hvis
du har nogen
DU ER VELKOM
OG UDFYLDE
Forsager for
ophænges i
VI HÅBER

Kontakt Maria Winther på tlf: 61181542 eller e-mail:
mwe@klood.co.uk for yderligere information.

Fortællinger om fortiden

Fortællingerne i dette hæfte er forfattet og redigeret af:
personer, med viden
med af nedlæde

Fortællinger om fortiden
Kommentarer til fortællinger

Fortællinger om fortiden er et forslag der foretages, i forbindelse
med et afgangsprojekt ved Industrielt design studiet på AAU, af
Tune Gonzalez og Maria Winther.
Projektet omhandler design af en service til styrkelse af ældre
sociale netværk, og denne samling af fortællinger samt
kommentar-hæfte er lavet i et forsøg på at teste hvorvidt
der er interesse for at dele beretninger, og kommentere på
andres fortællinger.

Temat for hæftet er erindringer fra fortiden, men det kunne
lige så vel være omhandlende mere nufidige oplevelser, emner
der er oppe til debat, tanker om noget man interesserer sig
for eller lign., hvis nogen kunne have lyst til at skrive og læse
om den slags.

For at forsøget kan lykkes håber vi at der har nogen der har
interesse i at læse dele af eller hele indholdet af hæftet og
derefter vil nedlæde et par kommentarer i et kommentar-
hæfte som nærværende.

Der er spørgsmål både indeni og på bagenden!
Du er velkommen til at tage hæftet med hjem og udfylde.
Kommentar-hæftet bedes derefter afleveres i den der er
egnet kasse inden d. 24 april hvor forsaget stopper.

Ønskes yderligere in
til Maria Winther på tlf

På forhånd tak!

For yderligere information om projektet, kan der rettes henvendelse til



Fig. 2.15: Setup at Aldre Sagen



Fig. 2.16: Setup at activity centre Kastanjegården

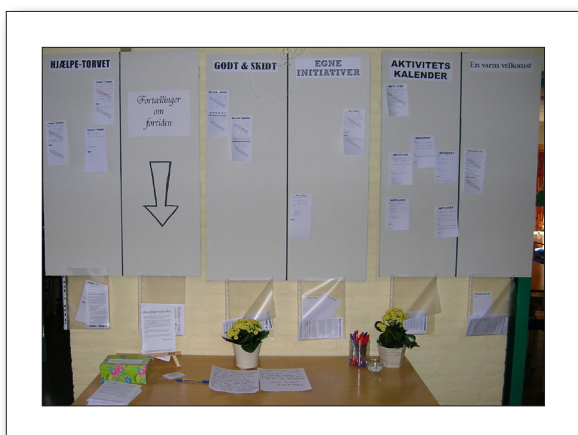


Fig. 2.17: Setup at activity centre Fyensgade Centret

Procedure

Three prototypes were made and installed to be tested in the Aalborg department of Ældre Sagen and two activity centres; Kastanjegården in Frejlev and Fyensgade Centret in the centre of Aalborg. In each of the places the prototypes were installed in central locations to have the opportunity to catch the attention of the largest possible amount of people.

Each of the locations were visited 3-4 times in order to inform people about the prototypes. Scheduled activities at each of the places were attended, to explain the attendants about the project.

At the two activity centres the staff were informed about the content and purpose of the prototype so they also could tell the seniors about it. At Kastanjegården the staff were very interested in the prototypes and willing to try to get the users of the center interested.

People were informed that they could bring the different material home in order to have some more time to put some thought into it, and then they could return it the next time they would come to the location.

Initially it was intended to have the prototypes for two weeks in each of the locations because of the limited time span of the project. However the period was extended by 1-2 weeks in order to obtain a better response. Had it been a non-school project a much more concentrated effort to inform people about the prototype would have been made and the test period would be beneficial to have at least twice as long.

“explaining prototypes to seniors at the 3 locations”



Fig. 2.18: Explaining people about prototypes

Mit initiativ
Jeg er en: ☒ Kvinde ☐ Mand
En veninde til at
gå i skole og andre
ting

Mit initiativ
Jeg er en: ☒ Kvinde ☐ Mand
Jeg savner en Opera ren-
gade, da min mand synes
at det er noget værre
"skrigeri".

Mit initiativ
Jeg er en: ☒ Kvinde ☐ Mand
Jeg vil da gerne hjælpe med indkøb,
ca. hver 14 dg.
Jeg vil også gerne gå tur, hvis du
feler utryghed ved at gå alene,
sometider også søndag.

Ønsker ☒ **Tilbyder** ☐
en der kan komme og
hjælpe mig 2 gange om
året, så jeg kan få ryddet
op i min have.
Til gengæld byder jeg
på en tre retters menu
hver gang

Outcome

As the period of time to test the prototype was short, the output was not as large as hoped for. In the first two weeks not much material was filled, but in the last week in Kastanjegården the elderly were a bit more active in their participation.

Unfortunately some practical elements had also an impact on the tests. Due to the season - not many activities were going on in Ældre Sagen, and therefore only a small group of people at that location saw the material. Also at the activity centres some activities had stopped until autumn.

Some notes were filled out for all of 6 the functions, but the stories and activity calendar were the elements people responded to the best.

A lot of people seemed to be very interested in reading the collected stories, but not as many commented on them as the number of people who took the stories. However in Kastanjegården a number of comments came back, stating the memories the participants had had with the same topic. Also some people handed in their own stories in the box that they would like to share, and others wrote that we could contact them to get some stories from them if we were interested.

As the Stories were made in advance, this was the prototype element where the function of having people to respond on the input of others worked out the best. However one Godt & skidt and Eget initiative had a response also. Having had the prototype functioning for a longer period of time, more responses might have been written on the boards.

Many of the participants didn't mind putting their phone number on the notes for people to contact them.

As some of the seniors were not able to write by themselves, they were either helped out by staff or the project group.

At Kastanjegården, the staff informed us, that the users of the centre had been very curious to see if anything new had come up on the boards, this was a somewhat insurance of the relevance of the prototype elements.

From the output of the different prototypes it was decided to continue with the Help market, Activity calendar, Stories and Own initiatives, as the main elements of the service. This was done both due to the interest of the elements from elderly, but also according to the values defined for the service to build on.

Fig. 2.19: Answers from seniors

79

Reflection

The way the material was made, meant that it required bit of either effort or curiosity of the seniors. It couldn't easily speak for itself as such, but needed a bit of explanation to get a fast overview. As we were not able to be at the locations all the time to explain people about the prototype, it could have been an advantage to having the material speaking more for itself.

Boards could have a short description of purpose in order for making them able to stand alone better, and communicate the purpose easily and fast to the elderly passing by.

The 6 different options might also have been too much to test at each of the places on the same time, which also was considered when preparing the material. It seemed hard for some of the seniors to overview all of the material, as the different elements were presented. Also when people took the materials home to look at, all the different things might have been too much for them to overview to spend time on, causing them to not look at any of it.

Still some seniors could easily decide on the spot which elements appealed the most to them, and didn't take all of the material home, so the many options were not a problem to all.

As a lower number of elements could have caused a easier overview, it would also have meant that less ideas would have been tested, so both alternatives have pros and cons.

The verbal presentation of the material could maybe also have been better, but people come to the activity places in different days, so it is hard to reach them. Interrupting people, trying to create an interest in the people but without forcing them, was a hard balance to find.

Many took material home, to have more time to think. Then some forgot to bring it back, didn't have anything to write, or thought that someone else would put something similar, so their contribution would not be important.

The ability to imagine how the different elements of the prototype could benefit them personally, was hard for some people to see. It was tried to help their imagination by giving a range of examples on what they could use the function for.

Some people made their own perception of what they had to do, without reading the material, causing some material to be filled out somewhat different than what was intended.

A prototype requires a bit more of the participants than

filling out a questionnaire, and many of the elements required the elderly to show a bit of them self, which maybe is a change for them and a bit of a challenge to some.

Extending the test period meant an overlapping of the it and the next steps of developments in order to keep time schedule. The selection of which elements to continue with was therefore based on little input.

System requirements 4

In the following the previous system requirements are summed up alongside requirements defined from the pin up prototype result.

The developed system should:

- Be realistic for implementation in present and near future
- Create a positive social change in the ageing population, towards a more sustainable society
- Relate and focus on the residual capabilities and skills of elderly
- Be developed through a co-creation process
- Be developed for Aalborg, as this is the context we have better access to
- Be targeted to 3rd age elderly
- Strengthen social network
- Consider the opportunities that Web 2.0 and social network sites offer
- Be just for elderly
- Be based on the values: connection, sharing, enabling, trustworthy and easy to use.
- Strengthen social network by creating opportunities for: establishing friendships, meeting people of similar interest/hobbies, giving/getting help, knowing what options elderly have
- Support/encourage physical encounters of seniors
- Be based mainly on volunteer work
- Consider the ways of introducing the solution to the elderly

More system requirements

After prototype 1 it has been seen that the solution should:

- Generate mechanisms that enable users to share:
 - stories
 - help request and offer information
 - initiatives of own interest
 - information about all the activities that are going on around them.

Phase 2 reflection

As one of the members of the project group can not speak Danish, it was prioritized to held the workshop in English. The language barrier put a limitation to the users available for the first workshop, as many of the seniors met in interviews were not able to speak English. However this choice was made deliberately, to have the advantage of having two mind sets to interpreting the process and outcome. It was chosen to make the prototype in Danish to reach a wider group of people through that.

The pin up prototype test was, as mentioned earlier, not as successful as hoped for. Still the test showed that the seniors had an interest in the test elements, and how the elderly chose to interact with the material, from which some insights and tendencies could be interpreted, to build the project further from. We hope that having had more time for testing the prototype, and talking to users, would have resulted in a more extensive and satisfying output.

In the case of the prototype, the vital relevance of facilitating users with easy understandable material were especially recognized. As we could not be there to explain the prototypes all along, a larger effort should have been put into developing material that could both catch the attention of people, and define the purpose and what they had to do with in a brief and clear way.

In phase 3 the concept is further developed and detailed through scenario building workshops and by testing an experiencing prototypes with users. Back-office requirements, system actors and elements are defined, and stakeholders of the concept proposal are consulted regarding evaluation of the overall concept idea and financial aspects.

phase 3: concept detailing

Workshop 2 - scenario building

Intention

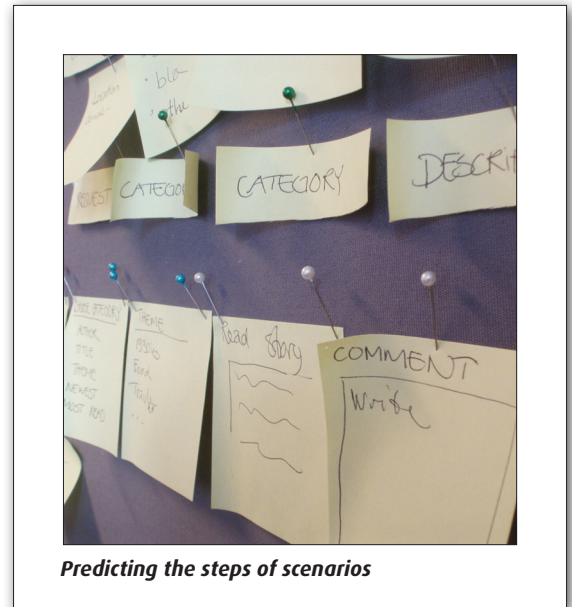
In order to develop the concept further, it was planned to hold some workshops with seniors, to have them co-create scenarios for the different chosen concept elements. Also the aim was to have them defining the content required and relevant for the applications, to create the most value according to their skills, needs and preferences.

The scenarios were planned to be created from pre-made options, represented in small cards. These cards, being the material to facilitate the participants with, were, as in workshop 1, meant to stimulate the participation of the users to get closer to a meaningful solution.

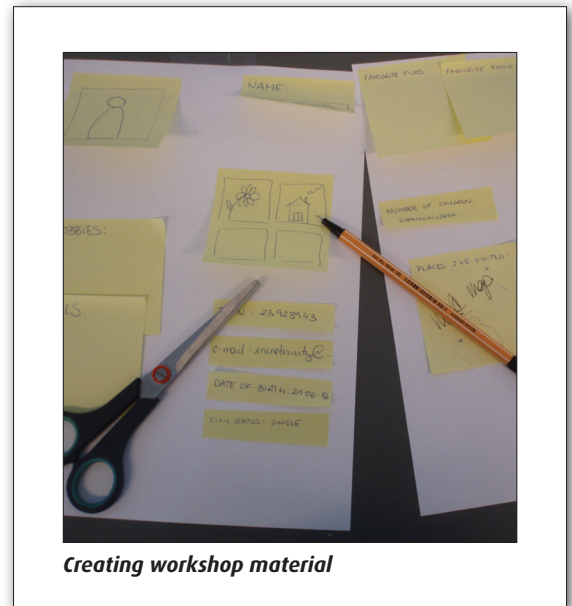
Preparation

Based on the information obtained from the prototype 1 test, the elements: activity calendar, own initiative, help market and were decided to be the main elements of the concept, which therefore were the elements to work from in the workshop. Furthermore it was also decided to work on creating the content of a personal page with the users in the workshop. This in order to see how they would feel about having such an element to create trust, and what information they felt relevant for it to contain.

The design team worked on preparing the facilitation material to bring to the workshop, in order to get the best possible output from the sessions. Many considerations were done both regarding the material and the structure of the workshop.



Predicting the steps of scenarios



Creating workshop material

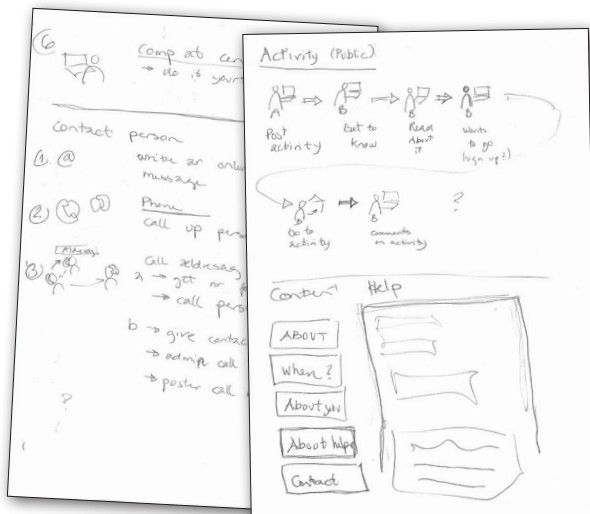


Fig. 3.01: Preparation work

Workshop material

The following illustrations show a range of the material brought to the scenario building workshops.

Content boards

Cardboard representing the place where information will be visible to other people. There were 4 content boards (one for each of the applications) and one for creating the personal page on.

Inspiration pictures

Pictures that could be picked for different purposes for the individual elements (profile, activities etc.)

Content papers

Small papers representing information that could help to define the content of the different

Scenario boards

Card boards where the created scenarios could be hung.

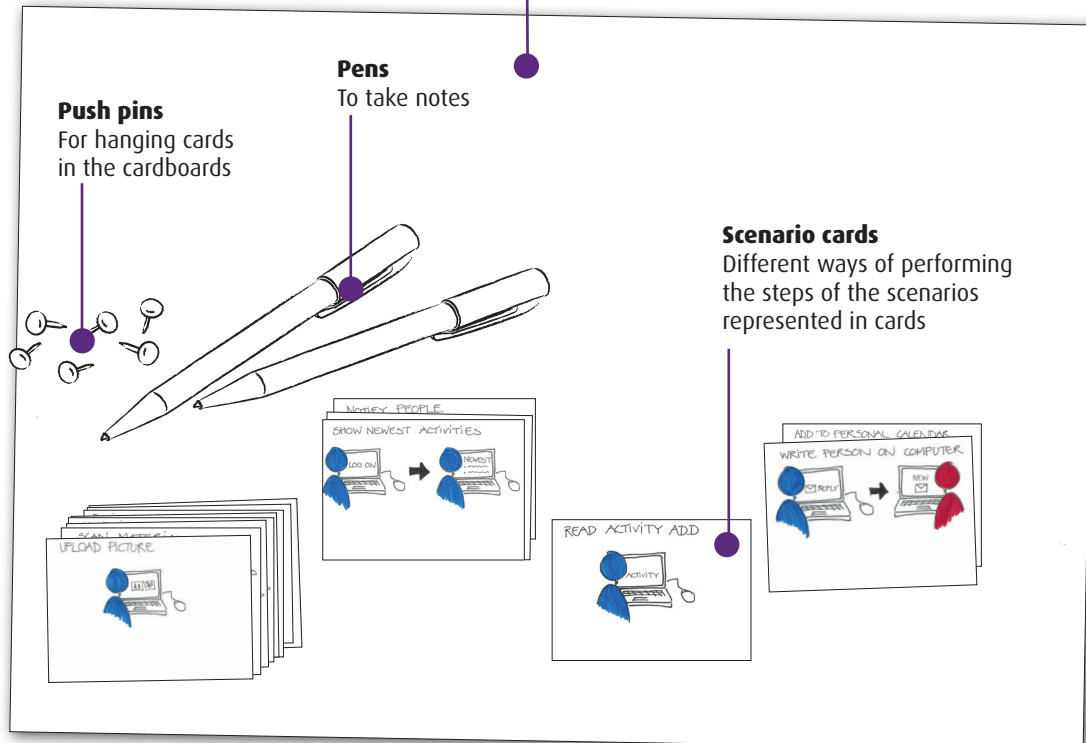


Fig. 3.02: Workshop material

Procedure

The workshops were planned to last 2 hours, and arranged as individual sessions with three participants that had already been part of the co-creation earlier on.

All of the workshops were video filmed in order to document the process and be able to analyse it afterwards.

Each of the workshops were divided in 4 different parts:

Presentation

Some slides with pictures (shown on a laptop) supported by an explanation of the process followed were presented in order to give an overview of the project and explain the purpose of the workshop to the participants.

Contents

A hypothetical profile was then created, based on the elements relevant to the individual and afterwards the purpose of it was discussed.

One of the use case was explained to the participants and the content of such an application was defined.

Scenario

From the content board and having the general idea of the scenario, the different steps of the scenario were chosen and a scenario created, based on the experience the user found most suitable for own needs, skills and preferences.

Conclusions

Finally an open discussion about all of the workshop was made at the end.



Elinor



Anne Lise



Christian

Fig. 3.03: The three workshop participants

Content outcome

The following presents the created content of the users and the conclusions that could be made from the thoughts of the individual participants and interpretations of them.

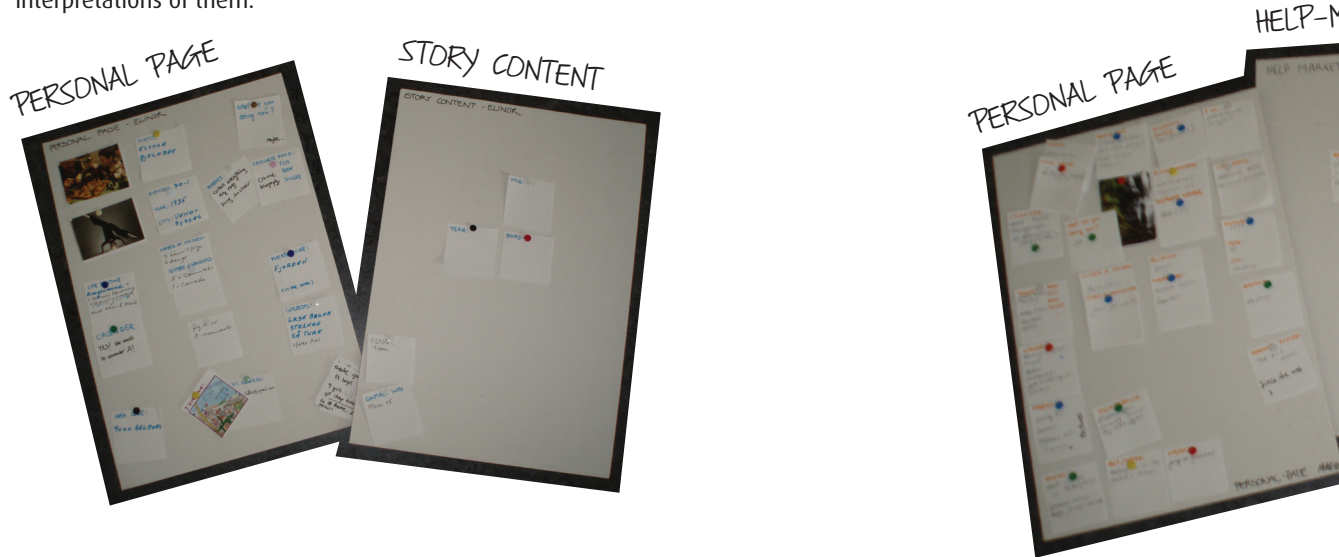


Fig. 3.04: Content boards of Elinor

Personal pages

- Having a profile creates trust and it is relevant to know about other people's interest
- Knowing that only other elderly have access to ones profile, there is no problem in having personal information such as address or contact information
- Helps to create identity. Participants like to define themselves
- They would like to know about other people
- They do not mind showing the address, because people can look it up in "Kraak" anyway. It can also be good to know who lives in your area
- In general they did not want a list or pictures of their friends, they know who they are and it is not relevant to tell others about it, also they didn't see a large importance of putting personal pictures.
- It is not important to tell others what they are doing every moment

Story content

- The title, story, name of the author and contact information were defined as the basic and most necessary elements. But also there were nice to have, such as: theme, pictures, references, key words, acknowledgements, place, year and a sum up
- The contents on the stories depend on the story itself, in some cases pictures are not relevant or even available
- It is also good to have a link to the personal page of the person who wrote a story in order to know more about him/her



Fig. 3.05: Content boards of Anne Lise

Help market

- A title, description of the request/offer and contact information should be compulsory. It was also considered important to have the area code so that people can locate it
- The telephone is the most relevant contact information in order to facilitate the meeting arrangement

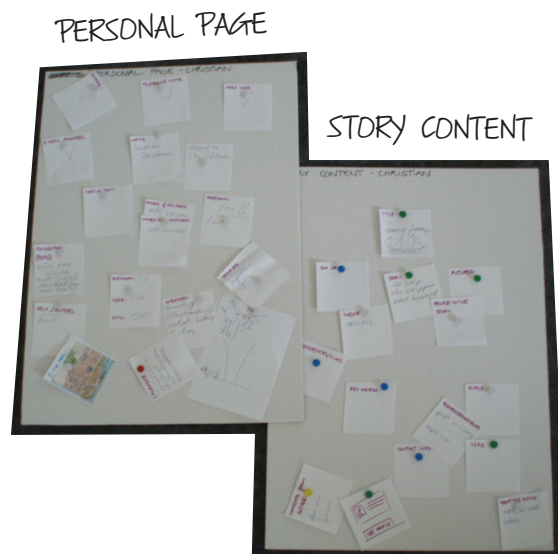


Fig. 3.06: Content boards of Christian

Activity and own initiative content

- The more elements the activities have, the easier it is to catch people's attention
- A general description about the activities should be required
- Pictures and videos can help to catch the atmosphere of the activities and get people interested in them
- The option of signing up could be very useful
- The Buddy arrangements are a good element to help new people integrate in the groups. The Buddies available could be stated with the content of the activity, and people could then contact the buddies or asked to be contacted by them
- It is nice to be able to see who attended an activity, if people want to get in contact with people they have already met

Scenario outcome

In the following the scenarios created by the participants are illustrated together with some of their comments for the choice. For some steps participants chose both

a first and second priority, which is why there are more cards.

Story sharing

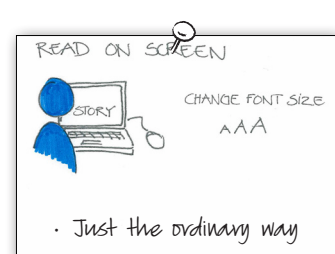
1 Write story and share it



2 Get to know about stories

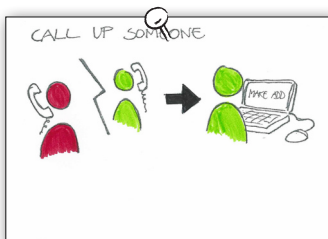


3 Read stories



Initiative

1 Create initiative and share it



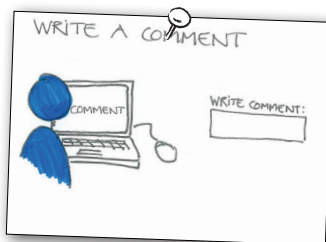
2 Get to know about the proposed initiative



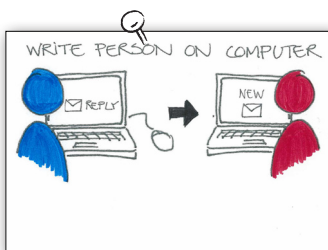
3 Read activity proposal



4 Give feedback about story



4 Reply to activity



5 Attend activity

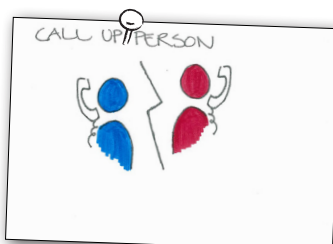
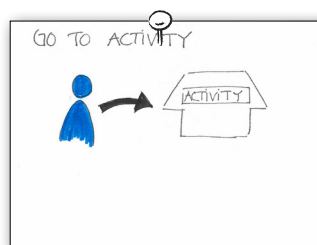
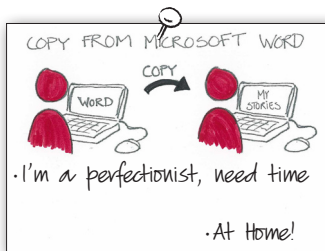


Fig. 3.07: Story sharing and own initiative scenarios from Elinor

Story sharing

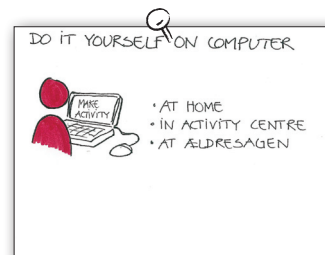
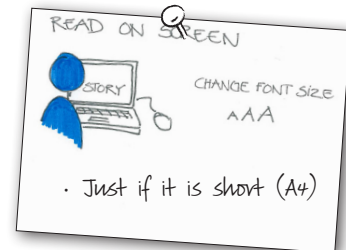
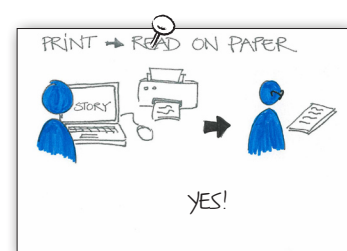
1 Write story and share it



2 Get to know about stories



3 Read stories



4 Give feedback about story

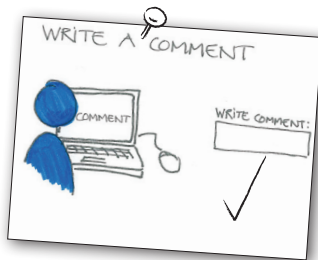
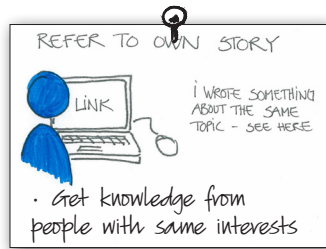


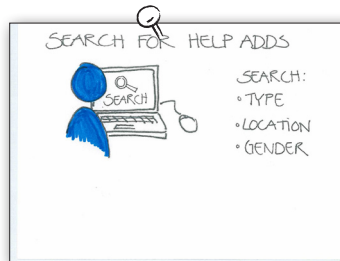
Fig. 3.08: Story sharing scenario from Christian

Help market

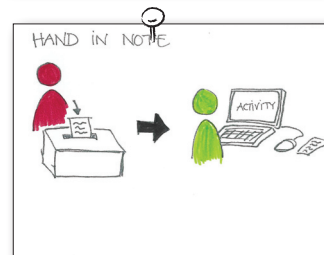
1 Write a request/offer and share it



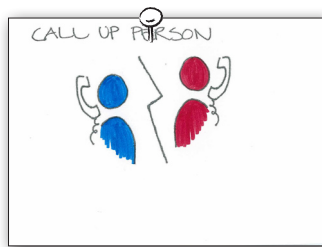
2 Get to know about requests/offers



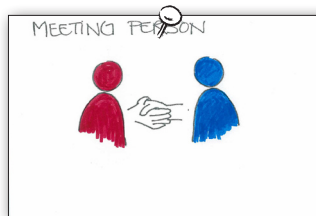
3 Read requests/offers



4 Reply to request/offer



5 Meet and provide help



6 See if it was good or not

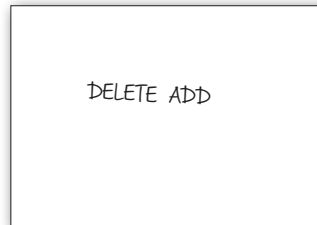
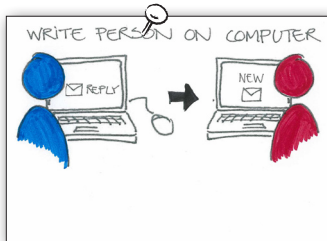


Fig. 3.09: Help market scenario from Anne Lise

Reflection

After the first workshop, it was realised that the concentrated work for 2 hours were very tiring for the participant. Therefore it was decided from that, that creating one scenario would be enough work for each participant, instead of two which were the intention from the beginning. It is important that the work load, the length of the workshop and the expectations are carefully balanced.

Overall the workshops went well, 2 of the users were able to understand the material and relate it to themselves in their context easily. However one participant had a hard time with understanding the material that had to do with computer opportunities. From that we learned that if the scenario is not well understood it is difficult to make decisions. In this case the discussion also becomes poorer, there are not as many relevant arguments why go one way or the other one and the scenario becomes much about picking up one option (a card).

The material proposed was very useful to stimulate participation and having many choices and examples seemed like a good way to facilitate the creativity.

The same range of material was used with the three different participants, with different skills, background and the impact on them was different as well.

The embedment of technology was overestimated, for instance, some steps involved e.g. scanning and copy-pasting and it caused confusion, loss of motivation, and sometimes rejection of the ideas.

The discussions about the content and the scenarios created valuable knowledge of what was of importance for the users and what they could relate to. All which can serve to define the concept and to define new requirements of the solution and develop it further.

Back-office considerations

Based on the scenarios created in the second workshop, it was possible to find out which strings the system has to pull, in order to provide the user with the desired experience defined by the scenarios, which mainly considered a front-office perspective. So from that the back office requirements were defined based on front office.

The back-office considerations were made by using the scenario boards created by the users, and from that defining the “invisible” requirements for each step, by noting them down on post-its.

Most of these requirements were defining what the software of the developed solution should be able to do, as well as the touch points required, which are the connection between front and back-office.

In the following pages some of the back-office considerations are displayed for the 4 scenarios. Also the scenarios were evaluated along the way, and some step options were eliminated as they were not corresponding to the project requirements.



Detecting back-office elements



Back office to support front-office

Fig. 3.10: Making back-office considerations

Back-office notes

Story sharing

1 Write story and share it

GET HELP FROM SOMEONE



TOUCH POINT
volunteers to
help
beginners

story
template

2 Get to know about stories

SEARCH FOR STORIES



SEARCH:
• NEWEST
• MOST
• ...

Stories linked
to category
when posted
SEARCH

3 Read stories


READ ON SCREEN



CHANGE FONT SIZE
AAA

• Just the
Easy
readable
font

~~WRITE IN STORY ON PAPER~~



It is better
if they learn
how to do it
themselves.

Initiative

1 Create initiative and share it

GET HELP FROM SOMEONE



2 Get to know about the proposed initiative

SEARCH FOR ACTIVITIES



SEARCH:
• CATEGORY
• PLACE
• PRICE
• DATE


As
activi-
(book

do not go to
centres/
do not go on
internet


REACH ALL
layers
low/med/high
TRANSITION

3 Read activity proposal

READ ACTIVITY ADD



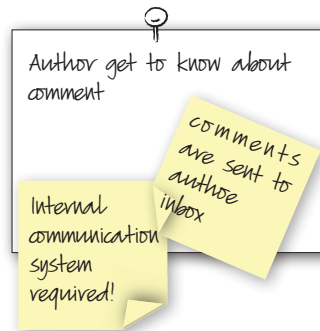
~~CALL UP SOMEONE~~



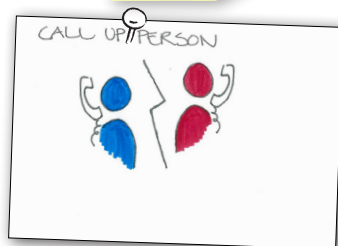
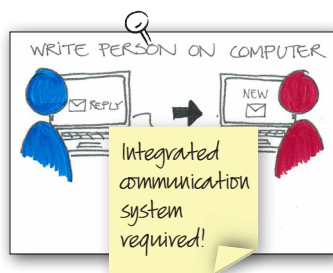
NOT AN
ENABLING
SOLUTION!

customer service
• call for help
• forgotten code

4 Give feedback about story



4 Reply to activity



5 Attend activity

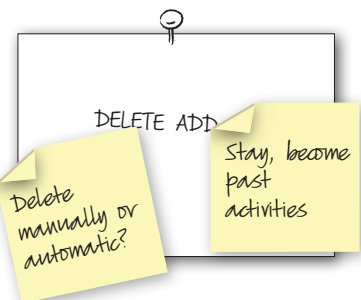
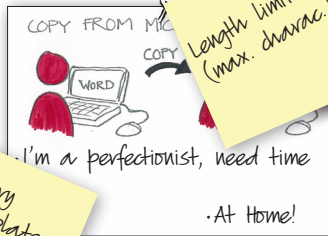


Fig.3.11: Back-office of story sharing and own initiative scenarios from Elinor

Story sharing

1 Write story and share it



Story template



Save and send draft FUNCTION



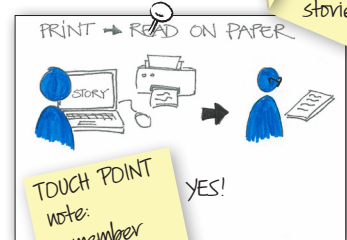
TOUCH POINT WORKSTATIONS
+ printer
+ helper to assist

2 Get to know about stories



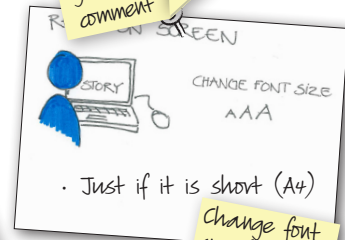
Length limit (max. charac.)

3 Read stories



TOUCH POINT note: remember you can comment

YES!



4 Give feedback about story

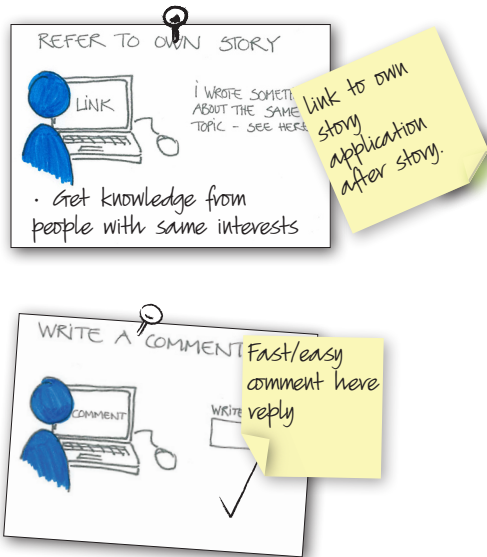


Fig. 3.12: Back-office of story sharing scenario from Christian

Help market

1 Write a request/offer and share it

2 Get to know about requests/offers

3 Read requests/offers

TOUCH POINT
COURSE
volunteer
free

TUTORIAL
download?
DVD?
HELP BUTTON
- video

link to
category
SEARCH

saved in:
help adds
personal page

DO IT YOURSELF ON COMPUTER



- AT HOME
- IN ACTIVITY CENTRE
- AT ADDRESSAGEN

• After learning...

HAND IN NOTE



TELEPHONE Nr.
(contact)

ADMINISTRATION
LOG IN? who

paper+box
where?

internet access
stationary PC
for this
purpose

SEARCH FOR HELP ADDS



- SEARCH
- TYPE
- LOCATION
- GENDER

Adds logged
under
different
categories

READ HELP ADD



Easy print
font sizes
save in...

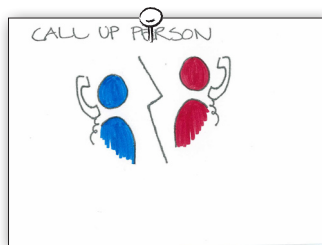
SUBSCRIBE ON HELP



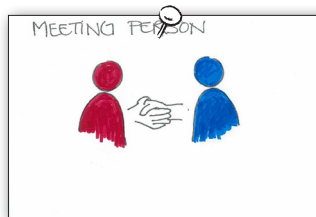
SUBSCRIBE ON
ALL HELP ADDS
IN AALBORG EST
AREA

Subscribe
option
- create new

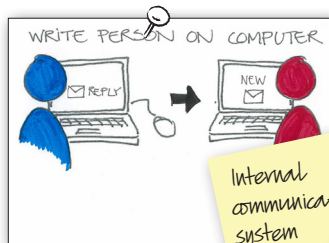
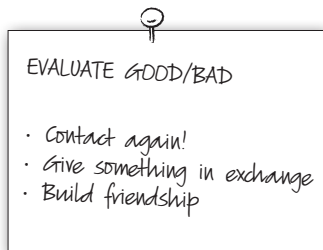
4 Reply to request/offer



5 Meet and provide help



6 See if it was good or not



Internal
communication
system

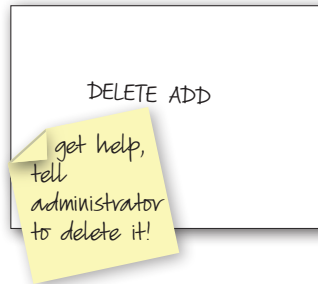


Fig. 3.13: Back-office of help market scenario from Anne Lise

System requirements 5

The previous system requirements are summed up below, followed by requirements defined from the further development. The developed system should:

- Be realistic for implementation in present and near future
- Create a positive social change in the ageing population, towards a more sustainable society
- Relate and focus on the residual capabilities and skills of elderly
- Be developed through a co-creation process
- Be developed for Aalborg, as this is the context we have better access to
- Be targeted to 3rd age elderly
- Strengthen social network
- Consider the opportunities that Web 2.0 and social network sites offer
- Be just for elderly
- Be based on the values: connection, sharing, enabling, trustworthy and easy to use.
- Strengthen social network by creating opportunities for: establishing friendships, meeting people of similar interest/hobbies, giving/getting help, knowing what options elderly have
- Support/encourage physical encounters of seniors
- Be based mainly on volunteer work
- Consider the ways of introducing the solution to the elderly
- Generate mechanisms that enable users to share:
 - stories
 - help request and offer information
 - initiatives of own interest
 - information about all the activities that are going on around them.

More system requirements

The scenario building workshop and the back office considerations of the concept detailing phase lead to following more specific requirements. The solution should:

- Be an online platform supported by touch points that help the introduction of seniors to the system
- Require users to have a personal page
- Contain templates that make it easy entering information
- Have search functions to find information easily

There are more detailed requirements of the back office regarding the web interface and the interaction with the solution, as defined in the previous paragraph. These are the sort of requirements which would be given to a Web developer in order to program the software platform from. As these are very specific they have not been listed in the requirement list, but will still be taken into account in the next steps of the concept detailing.

Touchpoints

The scenario building workshop and the back-office definition pointed out the need of some elements to support the interaction between the service and the users.

Making the interaction between the user and the service easy and intuitive and assisting them where skills are lacking is some of the things the touchpoints have to facilitate to the target group. The most critical part of these interaction are the first steps. Furthermore the way the platform is introduced to the users is very important for the future success of it. As technology represents a barrier, touchpoints will help the start up process be smooth.

Among the ideas that were considered, the most necessary touchpoints were defined:

Web interface

The web interface is the main touchpoint of the concept. This space makes possible for people to get connected and facilitates sharing and communication.

Instruction material

The web site itself should also helps users get to know more about it with step by step explanations in instruction videos. The videos show not only how to interact with the platform but also values, scenarios and benefits. The visual and clear instructions can be printed in PDF format.

Help

Assistance is provided by lecturers in courses where seniors can learn how to benefit from the platform. There are different courses for the different applications of the network and skills of attendants.

Course

Person to person assistance is also an important touchpoint. Medium skilled people can get more specific one to one help regarding any aspect of the platform.

Regarding introduction different touchpoint ideas were considered e.g. regarding marketing and advertisement. One of the more interesting one is a start up box that could be provided to all seniors. It could contain information in paper format and an introduction DVD, where a kind of advertisement video would show all the values and features of the platform. This touchpoint has been left outside of the concept due to a predicted high costs of the material.



Fig. 3.14: Platform touchpoints

Actors and ownership

Based on the outcome of workshop 2 and the considerations made along the process the actors who could be involved in the service are defined. The options for ownership of the service platform are also considered roughly, to give an overall idea of opportunities but without going into detail with it.

Actors

Users - Seniors of Aalborg Municipality

The primary actors of the system are the elderly which should be the ones getting most of the benefits from the platform, by a horizontal communication with each other from one to many principle.

The users can be defined as:

- Givers: fill in information on the platform
- Receivers: use the information from the givers

This is an extreme simplification of the users. In reality this interaction is more complex. The platform allow the “one to many” communication. As users in most of the cases will be both givers and receivers, but in different levels of involvement.

Assistants

As many of the elderly would require some assistance in order to get to use the platform, due to their low level of technology embedment, the assistants have an important role in the system. These are also divided in two types, as defined by previous touchpoints.

- Lecturers: People who are giving courses on how to use the service. This assistance is targeted mainly to low skilled users
- Helpers: are people who are helping out with specific problems of the individual user. It could for instance be connected with a service where the users could come once a week in a specific time span to get the assistance. This kind of help would benefit medium skilled users.

Both types of assistants are considered to be seniors working on a voluntary basis

Activity providers

Activity providers refer to some of the places of activity for elderly to take part in. These can be:

- Municipal activity providers. E.g. activity centres, the library etc.
- Organisational activity providers. E.g. Ældre Sagen, Senior sport pensioner organisations etc.
- Private companies providing activities. E.g. FOF

The activity providers are considered actors in the way that they could enter information about their activities into the platform, and possibly also making it possible for the users to sign up for the activities through the platform.

This is done in order to “kickstart” the network, making sure there will be some information that can attract the users. Probably it will also benefit the activity providers which will have free advertisement and possibly get more attendants.

Service provider

The service provider is the actor having the ownership of the service platform.

Administrator

This is the people in charge of administrating the content and maintaining the platform.

Systemic map

The flow of information between the actors and main elements involved in the service system are described from the systemic map on the following page.

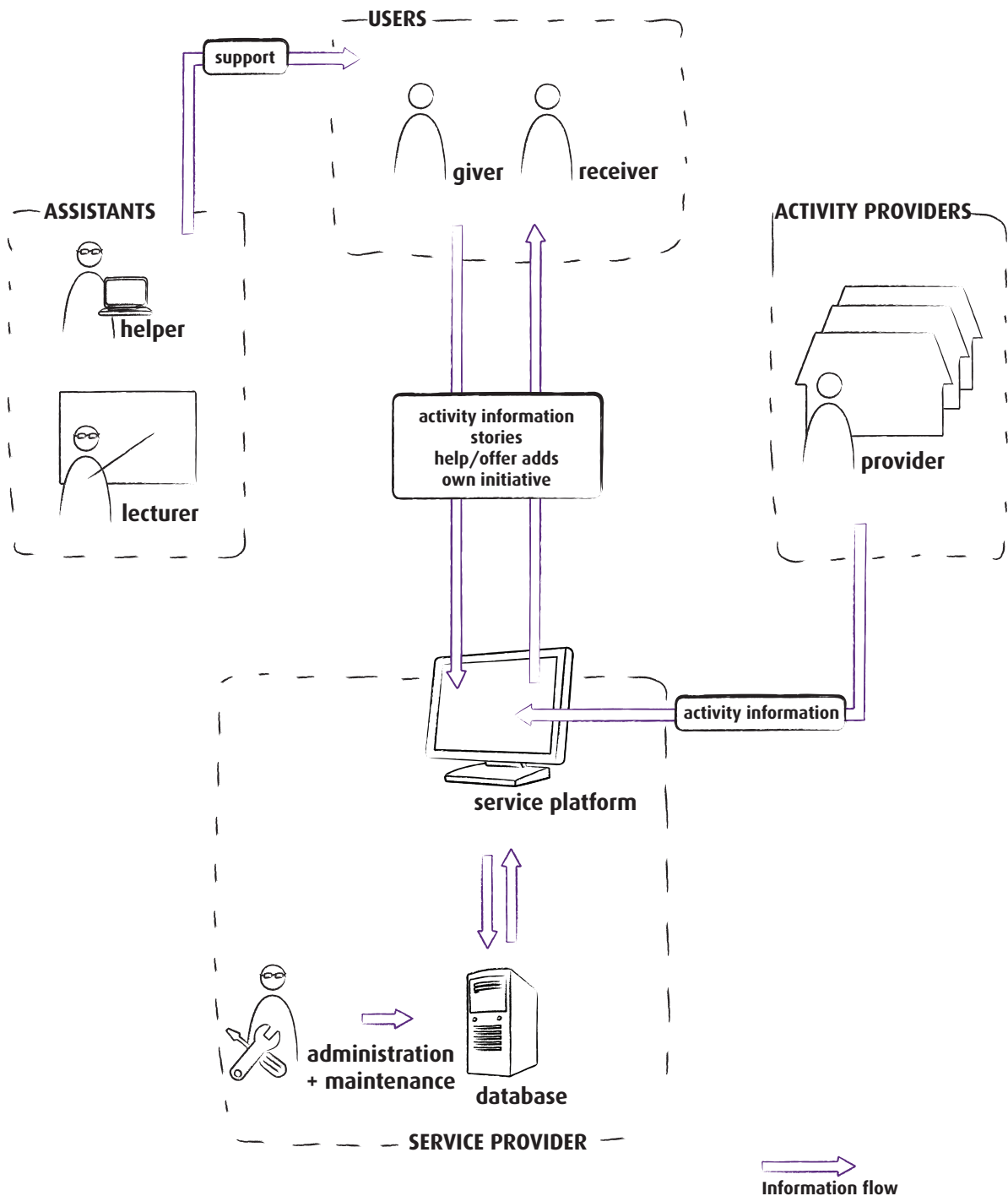


Fig. 3.15: Systemic map

Ownership

The following three options of ownership are considered and evaluated according to how it affects the service and the actors involved.

ÆldreSagen as owner



- Has an existing social network application, which could be used as starting point for the service platform
- Has a genuine interest in the well being of elderly (its aim would not be making money out of it)
- Would receive funding from the Municipality



- Is maybe not interested in facilitating a platform for other activity providers to advertise their information from
- In order to use the service platform, users might be required to be member of Ældre Sagen, which can limit the amount of potential users
- Difficulty of restricting it for pensioners only

Aalborg Municipality as owner



- Platform could be open for all pensioners in Aalborg
- Possibility of providing the service free of charge to the elderly
- Service fits the values of the Municipality (the department of Elderly and Handicap has an interest in elderly well being)
- Can be motivated by the fact that improved social networks of elderly can lower the cost for health care services for elderly
- Are willing to host the platform for non-municipal activity providers to post their information as a sort of citizens service (Borgerservice)



- Its main priority of the municipality is the weak elderly, not preventative work

New private company as owner



- Would not be competing with other activity providers
- Would not be in conflict with internal organizational/political interests



- The solution would have to be economically sustainable as the company would not have income from anywhere else

Evaluation of the options

The owner who seems the most adequate and appropriate is Aalborg Municipality, this as the Municipality supports the values of the project and possibly can benefit from it and therefore could have the motivation to invest in the project.

The head of the South West department of Elderly and Handicap of Aalborg Municipality, Gytte Gade, was consulted regarding the ownership considerations. However the focus on prevention in the project was out of scope according the service law which the Municipality has to fulfil.

Even though the values of the project corresponded well to the values of the municipality, the financial means available for social health care services are not adequate for the municipality to be able to provide the service platform. The focus for them is mainly on the weak elderly as the core services of personal and practical are of first priority.

The fact that economical aspects of the solution were not highly specified, also influenced the difficulty in seeing the opportunities that the project offered and make the decision of investing in it. [Apendix I]

At the meetings it was realized that regardless of the ownership and even if the platform requires initial investment, the solution should be financially sustainable in the long term.

As the main focus of the project is not the business case of the service developed but instead on the co-creational aspects, the ownership is not finally defined, and it would require more thorough work to make the decision.

Prototype 2 - paper web

Intention

In order to lead the co-creation process on step nearer to an actual web platform, one more prototype was created. The purpose of this prototype was to test a simulation of the network platform with users, in order to see if they would understand how it was intended to be used, and having them making changes to the elements of the concept. Also the purpose was to have them experiencing the values of the system by acting out the interaction of it. A secondary intention was to get video material to use for presentation of the concept.

Preparation

One of the main issues in the preparation was how the rapid prototype should look like. Different formats were considered for making the prototype concerning different levels of technology use. A flash animation or an interactive PDF would be the more realistic ways of doing it. In this way the navigation would be very similar to a web page, however the co-creation possibilities would have been very low, due to the lack of flexibility in the format. As previously in the design process, it was decided to avoid the use of computer technology, and make the prototype in a low tech format. Paper pages were going to simulate a web page interface, and navigation would be performed assisted by help of one of the designers. The paper is a basic material that can easily be modified which invites participants to co-create and come up with new ideas.

The requirements defined across the process made the detailing of the interface possible. Different layout considerations have been made during the preparation process. Hand sketches represented the arrangement of the elements and decisions were made concerning user friendliness, intuitive interaction, and embedment of technology of the users. Colors, font sizes, vocabulary, ways of choosing elements, how to enter information and many other things were considered in the development.

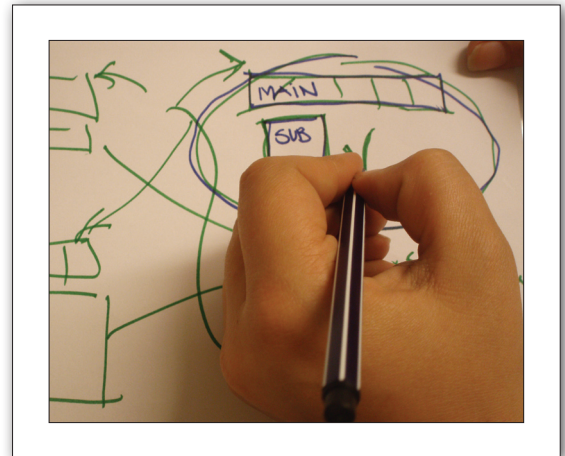


Fig. 3.16: Prototype development

Prototype material

The created prototype consisted of a range of papers simulating the elements of the network site. The papers were pinned on a piece of cardboard mounted on the screen of a laptop. The computer mouse was represented by a stick with an arrow attached to one end. When the participants pressed the “button features” on the paper on the screen, the screen images were manually changed to the paper corresponding to the outcome of the performed action, by one of the designers. This to simulate the functions of a web page.

Material were created for a range of defined scenarios, which were wanted for the participants to carry out. E.g. One person was creating a story and another person finding it, reading and commenting on it.

The layout of the “web papers” were drawn by hand in order to create a “creative” an unfinished feel to encourage the participants to make suggestions for alterations and new ideas. Still the elements of the representation were considered to simulate the structure of the actual interface to meet requirements, such as it should be easy to use for people with little computer experience. Some of the considerations of the interface layout are described in Fig. 3.19.

Apart from the actual prototype material, also some material was made to present the process and overall concept and small notes with suggestions for names were created to consider the name of the service at the end of the sessions, see Fig 3.21.

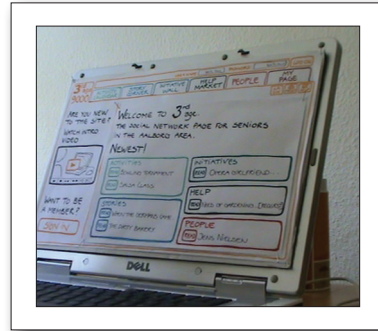


Fig. 3.18: Paper web placed on a computer

Fig. 3.17: The prototype setup

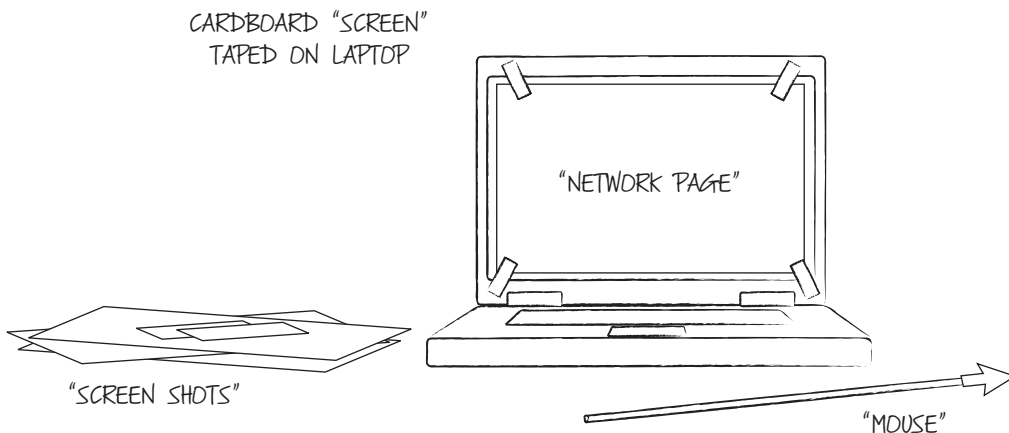


Fig. 3.19: Interface considerations

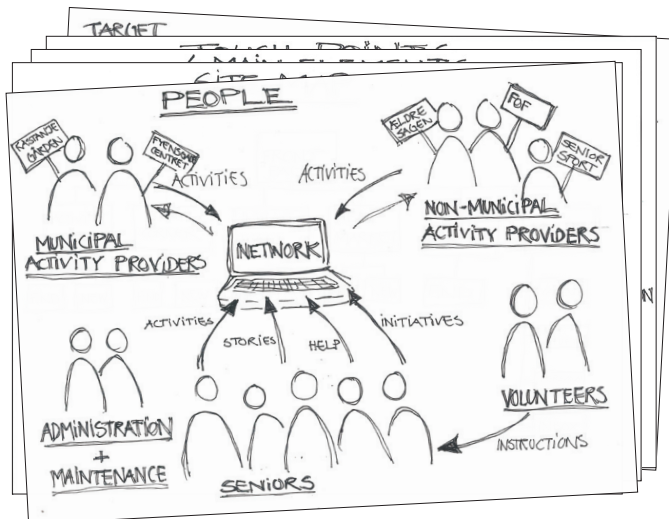
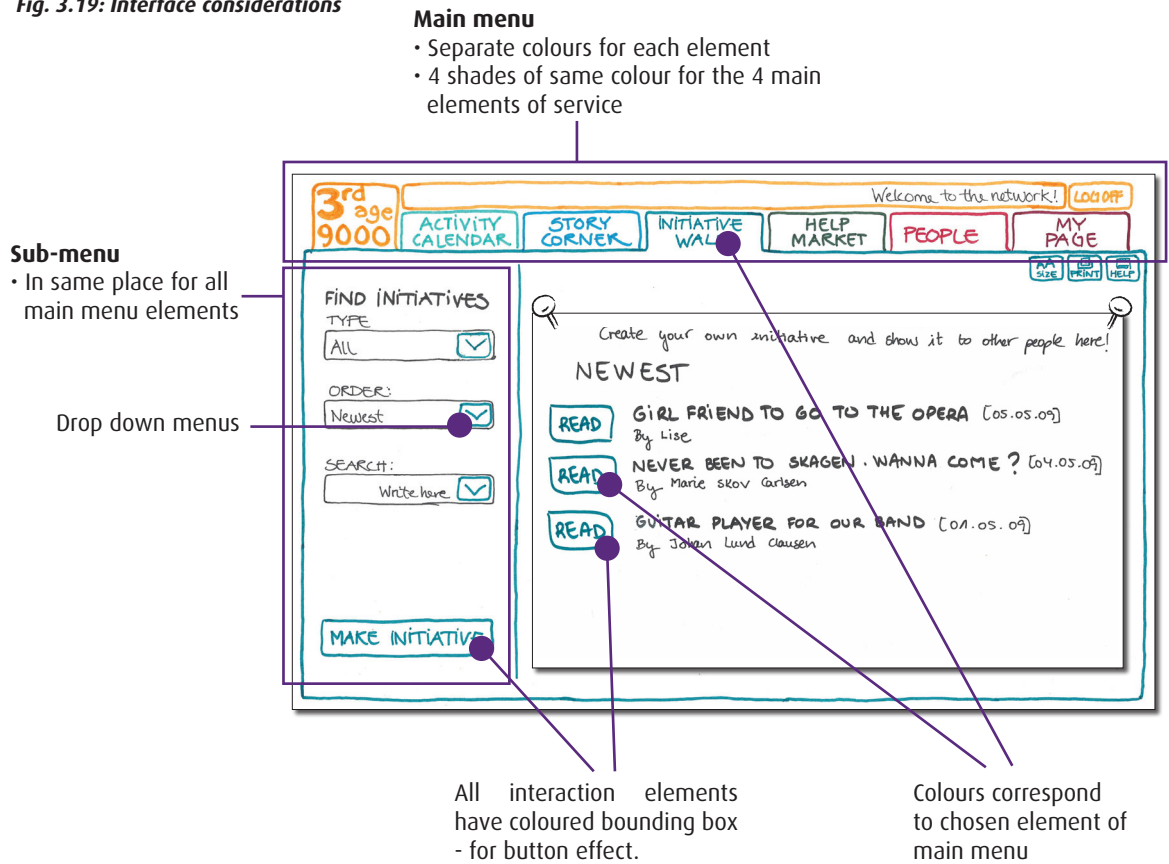


Fig. 3.20: Presentation material



Fig. 3.21: Name suggestions

Procedure

The prototype test sessions consisted of three steps. First a short presentation was given to fill the participants in on the project process and the overall idea of the concept. Secondly, and most important, the prototype was tested and further developed and finally at the end, names for the service were discussed.

Four different prototype tests were held, each with focus on different elements of the service. An overall explanation of the concept and how the web page would work, was given in all of them, and afterwards a more detailed test was done with the different applications.

In the sessions with two participants, the participants were each given a role and a scenario was defined for them. Then the scenario was acted out while using the prototype.

In the end, some names were proposed and new ones created, and after that a discussion was made about the project with the participants.

Fig. 3.22: Participants of the 4 prototype tests



Hans & Leif



Elinor & John



Anne Lise & Christian



Aase

Output

In the following a selection of the output from the 4 prototype tests is gathered.

By testing the prototype a person to person interaction was created, by the participants acting out the scenario, as well as the person to product interaction, by testing with the prototype.

Person to person interaction

Having two people at a time in testing the prototype and making them play the role of another person led to a better understanding of the system and the values created by it.

While web simulation test becomes very technical and going through all the steps can lead to lose focus, having the scenario on top of it helps understanding the purpose of going through the process and relates to everyday life.

As the aim of the system is that it is supporting social interaction in a physical layer by means of the virtual layer, it was very relevant to emphasize it and that the participants discovered the person to person interaction. Images from one of the scenarios acted out at the prototype test are displayed in fig. 3.23.

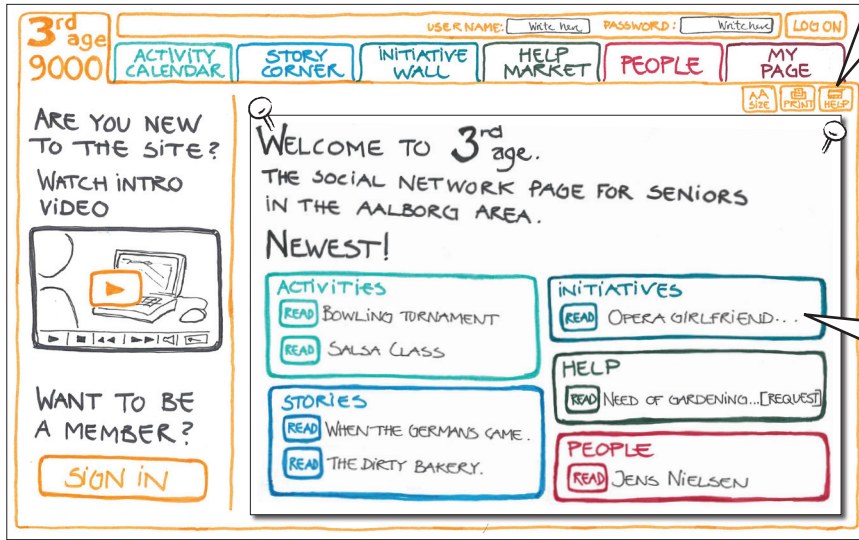


Fig. 3.23: Role playing, creating help market experience

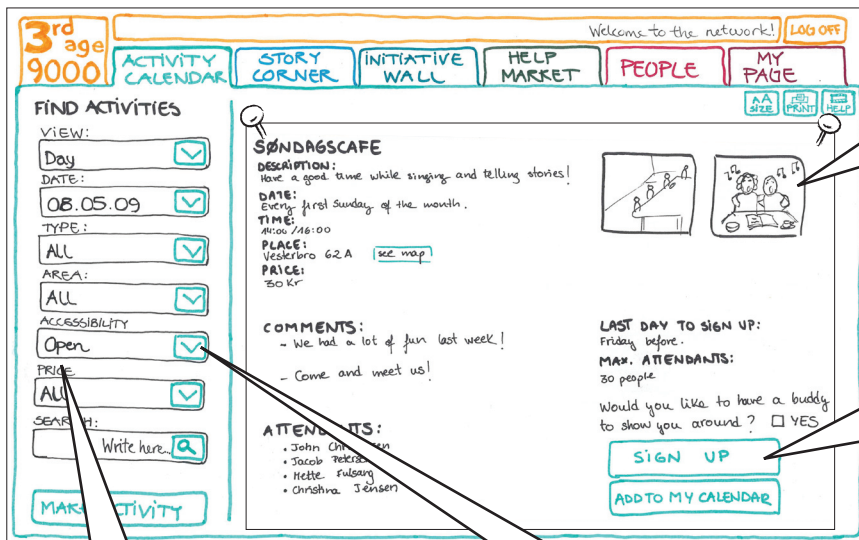
Person to product interaction

Below and on the next page some of the comments from the participants for the network platform are collected, regarding the platform interface, and the experience of using it.

Help videos for each of the main menu elements would be good. Printable help material with step by step pictures and explanations would be good to have also.



It is good to collect the different elements, to catch the interest of people. Have as much as possible public accessible in order to tempt people to join



Pictures are good to show the atmosphere at the activity

Online sign up requires that the staff/volunteers of activity providers are familiar with the technology. Make it optional for providers to choose sign up method

Reduce the number of options as much as possible, to make it easy for user.
Keep the first 2-3 options

Drop-down menus are easy to alter if you have to add or remove elements. It is maybe to complicated if people can make their own options

It is a good way for people from different areas of the city to share their stories

It is very good if readers afterwards can link to their own stories of same topic.

Many will probably have stories taking place during 2nd world war

Seniors often refers to past according to pre, during or post 2nd world war. Maybe this could be used as categories

Alternative suggestion: Find help requests/needs and offers. Find help sounds like it is only offers.

Acknowledgements are probably not relevant for most stories as they will be personal memories

It is difficult to know what is in this category. Maybe put the options up front to choose.

- ☒ Needs
- ☐ Offers

Divide by the names of elderly areas, people know them. Alternatively divide by city names, Hals, Nibe etc.

This is a bit hard to find, maybe put on top.

Fig. 3.25: Further paper web explanation

Name suggestions

The prepared name proposals were made in English, even though the final name should be in Danish. The participants all had different suggestions and opinions what would be a good name for the service and what would not. Some of their comments and ideas are presented below.

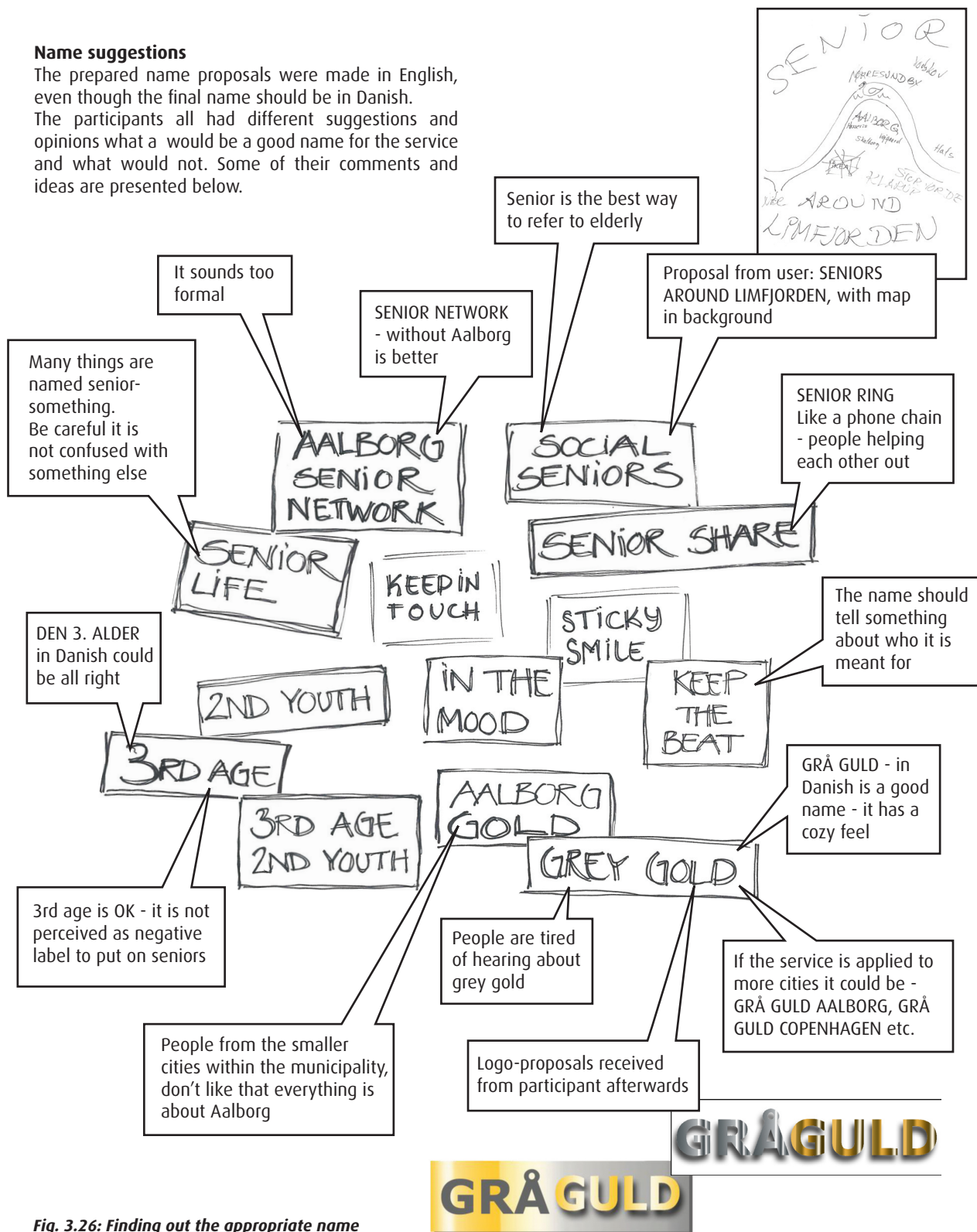


Fig. 3.26: Finding out the appropriate name

Reflection

The overall impression of the paper web prototype and the approach is very positive.

Although having to pin the papers on the computer resulted in being time consuming and slightly annoying, participants had fun and the atmosphere created was relaxed. Everybody is used to working with paper and it invites participants to change elements or create new ones. It is a good way of enhancing creativity.

The fact that the concept was explained in paper, made the participants understand it and get the points behind the solution. It has been seen that the simulation of web pages on paper is a good tool to explain navigation of the internet for people who fear and reject even looking at a screen.

It was positive to test the prototype with people that have different interests and skills. Some had never touched a computer, others were using the internet for specific aims and some were very skilled and had knowledge about elderly/technology relation (a lecturer of IT at Ældre Sagen). Those characteristics of the participants make them co-create in different levels and they get involved in different ways. These different perspectives used in the co-creation process contribute to a more versatile solution.

The discussions about the proper name showed that the same words are perceived in different ways depending on the person. Valuable arguments were noted down for choosing one or another.

Role-playing is fun and very useful to get the values of the system. The scenarios picked must represent a meaningful situation in the participants life, in order for them to be able to relate to it and see the value of it.

The procedure of the test got complicated and due to the many things going on at the same time, it did not succeed to create the video material for final presentation during the prototype test.

After the prototype test the system made sense to the participants. A common language and understanding of the solution had been made. They were a part of the process and liked the way the solution combined different aspects of social networking. Once they understood and had the feeling of ownership, they felt enthusiastic and motivated. Some participants also expressed that they were looking forward to using the system.

Financial considerations

The system was not developed as a direct business concept. As the Municipality was considered to be the possible owner, the thought was that the system could have a financial benefit due to savings in health care costs, caused by the improved social network of seniors from using the service. However, even though studies show that a strong social network improves the mental and physical health, it can not be quantified in which extent, if any, reduction of the cost of health care expenses, would be possible. The increase of elderly population in the future also makes it uncertain, as the number of people who might need health care services is significantly increased. For those reason it is also not possible to say if the service would produce a revenue.

Development expenses and running cost

A web developer was consulted in order to make a rough estimate on the expenses for development of the software solution and running cost

The estimated cost for the system development is stated in Appendix H. Overall the estimate for development cost were maximum 365.000 DKK and an annual expense for hosting the site were estimated to be 10.000 DKK.

However also the administration and maintenance of content and software has to be financed as it is work that most probably would have to be taken care of by professionals. No estimation is made for theses expenses, but it can be costly, and maybe require full time employment of one or more persons.

Using existing platforms for the service could also be an alternative for reduction of cost, as the expences for administration and maintenance probably could be lowered. However this could possibly mean that some of the requirements for the interface an touchpoint would have to be compromised.

Economical sustainability

In order to make the service solution economically sustainable, some different opportunities can be mentioned.

Displaying advertisements on the site would provide an income from the companies advertised for. Of course the interest of companies to advertise is related to the amount of users of the platform and the relevance of them as costumers of the companies. However a wide range of companies are interested in the elderly as costumers, such as be travel companies, health care and different production companies.

Another possibility could be to charge the users a membership fee, to have an income. This is not a desired situation, as it is the elderly that for the most are providing the information to the platform and therefore ideally should not be required to pay for this, moreover it is uncertain if they would be interested in that, even though they have the money for it.

Sharing the platform and thereby expenses within different municipalities could also be an option, as the cost would not increase significantly but the amount of people who could benefit of the service would.

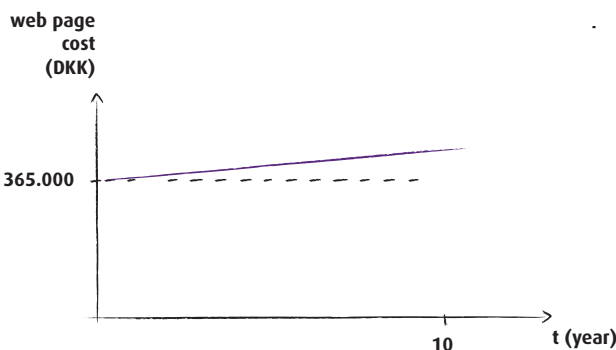


Fig. 3.27: Web development expenses and running cost

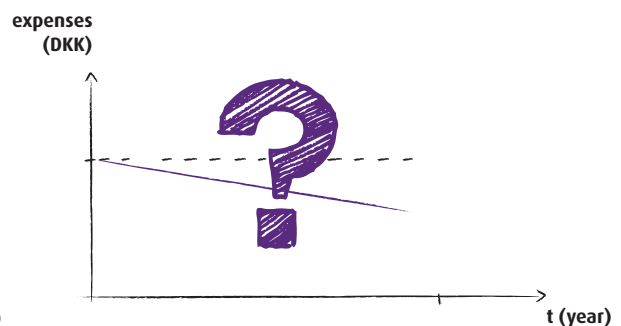


Fig. 3.28: Cost reduction possibility

Final development

The output of the scenario building workshop, the paper web prototype and the actors, ownership and financial considerations helped to define very specific system requirements. From that a concept proposal was designed, which is presented in the outcome report. The focus of the final proposal development was to display the values achieved by the solution as well as overall interaction among people and the elements of the system, more than an actual presentation of the system functionality.

Phase 3 reflection

At the scenario building workshop the technological barriers became obvious, with use of words and functions that especially one of the users was not familiar with, and therefore had a hard time imagining the scenario. The ideas could maybe have been communicated more into detail visually to overcome this problem.

Some elderly have hard time thinking about examples. They stick to their opinion or the case and can not think as if they were another person.

Examples given help a lot for inspiration and not to get stuck in the middle of something. It is good that they are always open to new things coming.

The paper web prototype gave the users a clearer image of the output of the project, and the very detailed visualisation made it possible for them to imagine how the web site would work, and thereby to think if they liked it, and make alterations.

The scenarios creation might have been a bit abstract to some participants, so the paper web prototype was a good way to end the co-creation process.

As we are not web designers and have not been trained in this field we have made the best effort to make a proposal based on our own experience and perception of good interface, but the reference frame is limited.

Final reflections

During the project it was attempted to co-create a solution based Web 2.0 with and for elderly. Through the process several insights were achieved, which are reflected up on in the following.

Gathering knowledge and finding co-creators

Prior to the actual co-creation events, interviews and observations were made. Establishing contact with new people was an experience that brought the design team closer to the professional way of working.

As designers working on a social innovation oriented project we lack in social sciences skills to analyze things from a proper approach. We are aware that the methods used to gather information from users such as interviews, observations and interpretations done could be defined as “rough and dirty ethnography” by a specialist. Nevertheless, the level of understanding we reached in the project through those methods are adequate for us to feel confident on how to use this knowledge for problem solving activities.

Co-creation

In co-creation it is attempted to share and take advantage of the individual knowledge of the people involved. There is a need for a common language in order for the different parties to communicate, which is the precondition for making people being creative and generate valuable solutions for the involved stakeholders and users.

Facilitation

For us as designers it is important to acknowledge and accommodate the diversity of the co-creators in order to enable the creation of a common language and the generation of solutions. Elderly, as people of all other ages, are a non-uniform group, that are not necessarily used to creative thinking, meaning that we have to be able to relate to their skills, experience, knowledge, opportunities, limitations etc. This accommodation was done in the design process by facilitating the co-creators with different material/input.

Preparation

In the process this material consisted of tangible tools which were prepared prior to the engagement event, e.g. workshops or prototype tests. In the preparation of the material it is important to try to predict the occurrence of events in the session to come, to foresee the possible directions the co-creation process can go in and be able to facilitate it.

Time aspects are important to consider as well. How long time can the participants be creative, and what output do we need to reach in that time? For instance in the workshops and prototype 2, some minimum steps to go through were defined, and additional material was prepared to be able to facilitate the users with more material, if time and energy were left after the minimum required output was reached.

The tangible tools were not enough for facilitating the participants in the creative process. Also the designers themselves are often acting as facilitators, as the prepared material must be assisted with further explanations in some cases. This usually happens because everything can not be predicted and tangible material that is adequate to stimulate the imagination of one user can be insufficient for another person. One user can instantly be able to relate the proposed material to both himself and imagine how it would work for others, as another participant can have a hard time understanding the material itself. This relates to aspect of common language and the fact that the users have different knowledge, prior experiences etc. Therefore it is required that the designers are present and relate and act to the situation in the moment.

In the case of material having to stand alone, the material has to speak for itself in a short and clear way, as well as invite to interaction. This was difficult to achieve, and it was seen that people could not be bothered to read too many written information and they were this way prevented from understanding and participating.

Representation

In the representation of material, a balance has to be found in order not have the material fixating the users to the pre-made idea, not making them able to think beyond this. However the material can neither be too implicit, leaving to many options open, and thereby too difficult for the participants to relate to.

Graphical representations used in this material were a good way of communicating with co-creators as it made a visual explanation, which they were able to relate to themselves. For instance by use of scenarios it was possible for them to choose and create the interaction and experience they wanted, and in the case for most of them, were able to abstract from thinking about which technologies were required to make this happen.

In order to create material that corresponded to the language of the participants, some preconditions had to be kept in mind. Both due to the difference in age of us and the participants, our backgrounds, and technology insights. Words that could have a negative association to the participants had to be left out, e.g. talking about death and weakness are more delicate subjects for them. Also words the participants were not familiar with should be avoided., e.g. design or technology related terms. This had to be thought of both in tangible material and oral communication.

Through the different engagement events it was attempted to establish the common language little by little, by the designers and co-creators sharing knowledge. Therefore it is preferred that the same people were participating through the whole process. This was not possible for all, but it was in most cases. This however also meant that the range of people being actively involved in the co-creation process, apart from in the prototype 1 test, were limited to a small group.

Creativity from interaction and experience

Creating experiences and interaction was a good way for having participants contribute with their knowledge. One can use own preferences and knowledge and it is possible to relate to personally.

The performed workshops and prototype tests had created two kinds of interactions: people to people interactions were simulated to find the relevance of the experiences and people to product interaction were created to simulate the user experience with the system.

Facilitating participants with material that allows them to think creatively, is also the first step of bringing their ideas to life.

The engagement events and material also need to be planned taking into consideration the outcome needed to work from further on.

In the held workshops it was attempted to make the participants write and draw their ideas and reflections, to have a tangible output from them. However they were in many cases more comfortable with just expressing themselves by talking. This issue was attempted overcome by video recording the sessions, and by the designers assisting the individuals in noting down things on paper

As we, the design team are facilitators of all the engagement events for the co-creation, it is important to keep in mind the large influence we have on the co-created output. We can lead the process in any direction we want, and the quality of facilitated material can be the cause for the co-creation outcome to be either a success or a failure. For that reason it is of large importance that we are as open minded as possible in the engagement events and observant towards what the participants actually are saying and doing, so that we are not just hearing and seeing what fits our mind set the best. We should be able to see and acknowledge their input in order to create a solution that is relevant to them.

Inexperience and time restrictions

The project has been very explorative in the way that we had limited experience with co-creation prior to the project.

Due to the time constraints of the project period, there was not room for a trial-and error approach, in the sense that, we could not start over from scratch if the engagement event did not succeed. This meant that we had to be awake, trying to get the best possible out of every session, and then from that reflect on what went good and what was less successful, and implement that learning in the next co-creation steps.

As the design team was unexperienced in co-creation, the time management and the planning of the process were a bit unstructured.

Project and personal benefits

By being part of the co-creation the participants as well as designers got some benefits apart from the solution.

The participants have learned to recognise their own potential, and have seen that their experience and knowledge is useful for innovative processes. This increases participation and creates a better response.

Being participant of the team and contributing to the development creates sense of ownership of the concept. Different steps of the process helped getting the overview and added value of the service, it made sense to them and they felt enthusiastic and curious about the outcome. Some people participated also outside the workshops by sending material and ideas, which shows commitment.

If the project was to be realized, there would be a range of motivated people wanting to use it and they would be a sort of ambassadors of it.

Reverse engineering approach

Looking back at the process of the project, an approach that is similar to reverse engineering, which is used in product design, can be detected.

First the values for improvement of social interaction of elderly people and the way they socialize were defined through interviews and analysis.

The existing solutions to social networking that Web 2.0 offer were taken apart and the underlying principles and mechanisms were defined through analysis. New combinations of the needs and offers of seniors with the interaction mechanisms of web 2.0 were created and tested through very low-tech prototypes. This was done in order to overcome the barrier between elderly and computer technology. This allowed us see the relevance and use of those core mechanisms by the elderly, which helped to get rid of the more irrelevant elements and to be able to simulate the interaction experiences.

In the further co-creation process technology was implemented gradually, detailing and defining a meaningful solution for the participants (seniors) step by step.

This process, turned out to be a good way to overcome the main barrier that prevents elderly from taking advantage of the current social networking opportunities. It also helped to develop a solution that were relevant and attractive to the elderly of the co-creation team, due to the fact that they have been part of all the co-creation process and have provided input, ideas and opinion, in all the stages.

What else could have been done

The co-creation process turned out to be very oriented to users as the solution concern a horizontal information sharing of users. As the providers or stakeholders were not defined in the beginning of the project, it was difficult to know which actors to involve in the co-creation teams. If they were involved from the beginning a broader perspective would have been taken into account and the knowledge sharing would have been richer.

Due to the focus on the co-creation, business aspects were not prioritized, even though taken into account, which would have been an important and necessary field to go on with the project.

One of the defined requirements for the system was to relate the solution to the skills of the users. This was

attempted by defining touchpoints that assist with help for learning how to use the system, and a developed proposal for a simple and user friendly interface layout of the platform. As the focus has been more on defining the right values, the adaptation to the skills of users have not been brought to the level it could have.

A final step of co-creation, simulating the web platform on a computer screen, would have been a good way to end off the co-creation process, overcoming the last barriers between elderly and technology. Due to time restrictions this was unfortunately not possible.

Conclusion

The project has evolved around two main tasks: fulfilling the learning objectives expected and desired regarding the final thesis through the process of solving the defined problem statement.

Co-creation process

A process based on co-creation was carried out in five main steps. Initially, interviews and observations helped to understand the users and the context they are living in. The opportunities for the project were pointed out and the first requirements defined. The next step consisted of an idea creation workshop, where ideas were generated by a co-creation team. Those concepts were evaluated through a prototype test. In a second workshop, scenarios of the ideas found most meaningful were created. Finally, the second prototype test generated use cases through the interaction with a rough platform proposal, which led to defining values, experience the people to machine and people to people interaction and detail the concept further.

Through those mentioned co-creation steps, three main achievements were reached. These three are in the outcome report called: finding the gold, taming the beast and the proud parents.

The first refers to finding out how elderly can create value for one another, establish their needs regarding social interaction and defining mechanisms for social networking.

Taming the beast is about overcoming the barriers between elderly and technology, which was done by having them find the value of the mechanisms behind social network sites without use of technology. Once that was understood and motivation was created, technology was gradually introduced, adapted to their abilities.

The final point, the proud parents refers to the feeling that the participants got out of being engaged on the project. The co-creation process generated a sense of ownership that served as a drive to a more active participation.

As designers our main contribution to the co-creation process has been to facilitate the participants with tools allowing and stimulating them to think creatively, bring the ideas of the co-creation team to life and guiding the process towards a real solution.

Learning objectives

Referring the learning objectives defined for the project, the following can be concluded:

- A system design concept has been developed, the web based platform GRÅ GULD which is presented in the outcome report.
- The area of co-creation has been explored and experience and new insights have been gathered, concerning process, tools, participants, language etc.
- People directly involved in the solution such as users, and representatives of organizations and possible stakeholders have collaborated in the project.
- The communication with the partners has been carried out from best effort, by having prepared material and verbal presentations prior to meetings and engagement events, in order to achieve the best possible output.
- Some of the knowledge, methods and experience gathered during the Master Program have been applied in the project, but as the main focus of the project was on co-creation, the implementation of new methods have been necessary also.
- Graphical and verbal communication have been practised through the co-creation process. this by having to adapt to the skills of the people involved and the context in each step.
- The project and workload have been difficult to manage, due to the use of partially unfamiliar methods, and the somewhat unpredictable process of co-creation. However the engagements called for a range of small deadlines along the process, which were fulfilled and created good experience in developing and producing material fast.

Concept proposal vs. problem definition

The outcome should provide a solution to the problem statement and the system requirements defined along the way. The problem statement was defined as follows:

How to co-create a Web 2.0 based platform with and for seniors, which can serve to strengthen their social network?

A proposal for a Web 2.0 based platform has been developed through a co-creation process, with and for elderly.

The concept has not created any technological innovation. It uses technologies that are feasible and already in use by many people. However, the proposed solution is innovative in the way it brings technology and new users together, towards social changes and improvement.

In which extent the platform can serve to strengthen the social network of elderly can not be finally concluded, as different aspects, which are not quantifiable, are of influence:

- Are the values created by the platform applications relevant for improving the social network of seniors?
- Do the applied social networking mechanisms correspond to the social interaction of seniors?
- Are the benefits of the solution going to be perceived so positively that even unskilled users will make the effort of learning how to use it?
- Does the developed solution relate to the computer skills of seniors, in a way that makes the technological barrier seem possible to overcome?

Due to these different questions it is difficult to predict if the developed solution would be a success if it was realized. The co-creation process, however, has brought positive answers to most of the questions from the participants such as seniors and representatives from Aalborg Municipality and Ældre Sagen. This shows the potential of the idea, and makes us feel somewhat confident in the solution. Still it is not sufficient to claim that the perception from these participants can be held as representative for all seniors in Aalborg Municipality.

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The 4 ages of human life

The life of people have earlier been divided into 3 overall age periods. As people are living longer and the understanding of people are becoming more nuanced a new categorization have been made, dividing the earlier third age into a third and a fourth age. Relatively an active and a weak retirement age. The third age is retired people who are healthy and can live an active life independent ly of help from the health care system. People in the fourth age are retired people who are weak and are dependent of care from others.

The focus for the project is to strengthen the social network of pensioners in order for them to live a good life, and by creating a strong social life prevent or delay weakness period and dependence of the health care sector. For that reason the target group of the project is the people in the third age, so that their fourth age possibly can be delayed due to a better social relations and happier life.



