



DOMEO Project

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Interviews methodology report

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Abstract:

This document presents the methodology defined and used by the consortium for realizing user's interviews.

Keyword List:

Users interview, methodology, use case scenario, technical implementation.

Summary

This document presents the common methodology that will be used by DOME0 partners to conduct the user's interviews.

After a presentation of the methodology based on a focus group approach and the tools to be used, the local implementation (Austria, France, and Hungary) is described.

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1. Introduction

This document presents the interviews methodology defined by the consortium members in order to approach in focus group the end and intermediate users. These interviews targets at analyzing the following points :

- first impression
- acceptability and privacy,
- pertinence of services,
- main advantages,
- which functions would be necessary besides the available ones
- costs and funding, willingness to pay
- possible obstacles,
- motivation level to use the proposed services,
- organizational issues,
- recommendations

More details about the items to be analyzed are given in D1.2, this deliverable focusing on methodology.

2. Acceptability and user's needs evaluation protocol

We will assess acceptability and try and detect possible, users driven improvements, through a focus group methodology applied after a presentation of DOMEQ goals and some true to life scenario-driven demos.

The method consists of three parts:

- Presentation of project objectives DOMEQ;
- A demonstration services platform DOMEQ;
- A discussion session among members of the focus group.

2.1. Methodology

2.1.1. Presentation of the DOMEQ project

The objective is that a set of knowledge (aims of the project, functionalities and/or services and previous experiences) is shared by all members involved in the focus group. The sets of slides used for presentation of the system will be the same for all the groups (users or experts) but the presenter will adapt his speech to the level of understanding of the people who face him.

The project will be presented to the participants in the focus group, congregating altogether, by a member of the project partnership with the following characteristics:

- Native speaker of the same language as the participants, if possible with the same accent
- Recognised by the participants as somebody with legitimacy in care and science, if possible a physician, better if the patients already know him.
- Having a good experience in vulgarization, and in didactic presentation with a fluent speech.

The presentation will be based on a PowerPoint slide display, including on the 2 first slides the main goal of the project, the role and use of the two robots, the consortium partners with an emphasis on the local partners and the medical and medico-social partners. A third slide will define a robot, acknowledge the fearful aspects, minimize them, and introduce the notion of “ambient intelligence” or “smart living place”. The fourth slide will present the services offered by the robots with reference to local meeting places.

The next slide will give a simplified description of DOMEO with the robot-walker, the command and feedback mode of the robot (access to the robot platform). This slide will present previous realizations and experimentations: e.g. the first works by Pasqui and Rumeau [1] [2] [3] on the characterization of the dynamics of natural standing with help, then the first attempts by Pasqui and Moulias at helping patients to gets up with the device (Including pictures and movies)..



Figure 1: 6 first slides to be used by consortium for focus group presentations

From number 7 (not illustrated here because of too many slides -31- and animations), the slides will present the interface functionalities thanks to powerpoint animations.

The last slide will invite to the robuMate live demonstration.

Any question will have to be answered. During the presentation a secretary will note all the questions and the related answers by the speaker. The speaker will have the help of a technical member of the project to answer technical questions he couldn't answer.

2.1.2. **robuMATE live demonstrations**

The demo will be using real capabilities of DOME0. We chose not to use "wizard of Oz" approach as this proved to be too remotely linked to real world behaviour.

The chosen scenarios will have to be: simple, demonstrative, relevant.

The proposed scenario will use two functionalities of the robuMate: navigation within a known environment and videoconferencing.

The scenario will be set in a common occurrence to the user: the user has an accident of some kind in a room of his home, he/she has a telealarm which can trigger an alarm, launch a phone call with the call center operator. Yet the operator doesn't know where in the patient's home the alarm occurred and has no vision of the patient and what occurred. On the other hand in such occasions patients tend to panic and are not always able to give the proper information or the telealarm-microphone is so directed that the operator can not understand the patient. Moreover we could suppose that if the user saw who he is contacted part of his stress could be relieved. That setting will be orally described to the participants. Then the demo will be played in front of them.

(1) The user has the robot in front of him and launches a videoconference with the operator with a vocal command ("operator").

(2) Two adjacent rooms: the person playing the end user will be in one room, the person playing the operator and the robot in another room. The operator will order the robot, via the PC, to go to the other room, with the videoconference already launched, then will explore the room with the camera and engage the discussion with the patient. A sub-scenario would be avoiding an obstacle or avoiding the patient lying on the ground.

The participants should play the users in the scenario; a few participants should be allowed to try the robot.

Participants should be informed in advance of the prototypic nature of the companion and of the subsequent limitations.

The demo should be in the users' own language, and cope with the insurance requirements related to the possible induced damages to people and structures.

Each local partner should discuss the location of the field demos, demos and focus groups should be at the same location.

2.1.3. Focus group

For the focus groups we will use the methodology that was validated for cognitively impaired patients and their care givers in Tandem Project (ANR TecSan, France, ended 31/12/2009) that studied the acceptability and usability of a computer based multimedia ecologic strategies rehabilitation exercise for the cognitively impaired elderly. Here we will measure the utility through the needs of users and a priori acceptability of DOME0.

Each country will select 4 triplets including a handicapped prospect user, his/hers main-caregiver, another close caregiver. The two caregivers should be in different age-classes: one 40 or below and one over 65. The caregivers will have to be physically and mentally apt to attend the sessions of presentation and demo; excluding deep deafness, important vision deficiency, uncompensated walking handicap, speech handicap or severe shyness.

The prospect end users should represent the potential beneficiaries selected for the testing location (that will latter occur), including a description of their functioning according to ICF, description of their social and family network, of theirs place of living.

Inclusion criteria should be through choice by the expertise of the local medical leader of the project, with the help of local disabled people or patients' associations being a welcome help, to:

- To have someone representative of the prospect end-users.
- To have someone who could accept to actually try the device in his/hers home at the end of the project.

Exclusion criteria would be that the end user would not be physically and mentally apt to attend the sessions of presentation and demo; excluding deep deafness, important vision handicap, uncompensated walking handicap, speech handicap or severe shyness. In the case of cognitively impaired patients the local medical leader will, with the help of the other medical members, chose a proper way of describing the level of deficiency and functionality of the patient and the minimum functionality for inclusion.

The person in charge of the focus group will have an experience of such practice, if possible a psycho-social background, will be trained in depth on the project by the local project members and will have access to the global project. It is most important that that the person should not have attended the presentation and demo in the presence of the participants in the focus group. The usual consensus reaching approach of focus groups will be used. A secretary will attend the session and participants will agree to have their voice recorded for the purposes of the study only. There will be three focus groups, all driven by the same person, one for end-users, then one for the older caregivers, and then the one for the younger caregivers.

Each focus group will last some 3 hours. The questions to be answered will be:

- Would you use the robot-companion?
- What would you expect from it?
- What would be the expected dangers?

Those questions should foster a discussion that should include ethical and financial issues.

The negative aspects and the potential uses that have been forgotten should be paid special attention.

The same questions will have to be answered about the robot robuWalker.

Note : participants in the focus group will have to be informed of the agenda well in advance, made as comfortable as possible, paid for extra-costs (such as hotel if they don't live in the place where the focus groups are held). Yet no fee should be paid that could cause bias in the answers. It should also be paid attention to the possible conflicts of interest that could be involved in the acceptance to participate in the focus groups.

3. Implementation of the methodology

The interviews will be made in 3 different countries : France, Hungary and Austria. Base on a common approach, each local team will select focus group and conduct the interviews with specific targeted population.

3.1. French interviews

3.1.1. The end and the intermediate users selection

We will select triplets with one patient, one elderly caregiver and one young caregiver (ex.: the grandfather aged 85 with AD, the grandmother 80 who is maincare giver, the daughter 55 who is the younger caregiver).

Patient, criteria for selection:

- Age at least 60
- Both genders (at least one of each genders)
- Diagnosis will be mild to moderate Alzheimer's disease (MMSE > 15)

Caregivers and relative selection criteria:

- Age: for the elderly caregiver group minimum 70, for the other maximum 69.
- Both genders will be represented although we acknowledge that there will be more females in caregivers than males due to epidemiological reasons.
- Care givers should meet the patient at least 3 times a week.

We will propose the patients in the Gerontopôle of Toulouse and members of France Alzheimer charity to take part in the focus groups.

3.1.2. Interviewers team

The interviews will be conducted by the Gerontechnology Lab of Gerontopole under responsibility of Dr Pierre Rumeau MD, Dr Nadine Vigouroux PhD and Pr Fati Nourhashemi (in charge of gerontechnology medical trials at gerontopôle) who will act as a consultant on the project.

Role of team members in the interview procedure:

- A physician will present the concept with the help of IT specialists for the demos.
- A person trained in focus groups will conduct the interviews.
- One of the team members will act as secretary to collect the discussions.

Technical aspects (recording the session, time constraints, schedule, location for interviews):

The focus groups will take place in a location that will allow for confort during the meeting and avoid as much as possible undue stress (such as long car travel for patients and caregivers). Members of the focus groups will attend together the presentation and demonstration. Then they will be refered to the three specific groups for discussion.

Information sheet and Consent form:

Consent will be signed by all participants (patients and care givers), in the case of the demented patients we will follow the usual consent procedures required by French law for the involvement of demented patients in research.

All participants are free withdraw their consent to take part in the study at any time.

3.1.3. Ethical and confidentiality issues

Legal aspects: according to French law, this study is not biomedical research (loi Huriet-Sérusclat). We will follow the code of conduct of La Grave Gerontechnology Laboratory in our behaviour with patients and users. Patients and users will be fully informed of our goals and means before taking part. We will abide the regulation of the CNIL regarding nominative information.

3.2. Hungarian interviews

3.2.1. End and intermediate users selection

Targeted population, criteria for selection:

- Age at least 60
- Both genders (at least one of each genders)
- MMSE 21-24
- Diagnose can be any kind of mild dementia

Care givers and relative selection criteria:

- Age: for the elder caregivers minimum 65, for the other younger care givers maximum 55 years (at least for one caregiver under 40)
- Both genders must be represented
- Care givers should meet the patient at least 3 times a week

3.2.2. Interviewers team

Description of the team that will realize the interviews:

- Medical doctors (neurologist and PRM specialist: Gabor Fazekas; PRM residents: Katalin Zsiga and Orsolya Péter)
- Occupational therapist (Györgyi Stefanik)
- IT specialist (Tamas Pilissy)

Role of team members in the interview procedure:

- Medical doctor: providing the presentation, leading the interview
- Occupational therapist: recording the answers
- IT specialist: providing the demonstration, giving technical assistance

Technical aspects (recording the session, time constraints, schedule, location for interviews):

All participants are invited to the robotics laboratory of NIMR. If necessary, transfer is provided. Members of the focus groups are looking at together the presentation and demonstration, nevertheless they are asked not to comment what they see. Then they will be divided to the three specific groups for discussion.

Way of driving the interview:

The leader of the interview will go through the topics one by one and each topic will be discussed by the members of the focus group.

Information sheet and Consent form:

Consent will be signed by all participants (patients and care givers). They can withdraw their consent at any time without explanation.

3.2.3. Ethical and confidentiality issues

How ethical aspects will be considered:

This survey is considered not as a clinical trial, only a data collection, for this reason the approval of the local ethics committee is enough. Each subject will get a number and only this number will be on the interview sheets. There will be a list with the number and the names of the subjects, which will be stored separately.

3.3. Austrian interviews

3.3.1. End and intermediate users selection

Targeted population, criteria for selection:

- Age at least 60 years of age
- Both women and men will be included (at least one of each)
- MMSE 21-24 (at least mild impairment)
- Diagnosis can be any kind of mild dementia

Care givers and relative selection criteria:

- Age: for one minimum 65, for the other maximum 40
- Both genders must be represented
- Care givers should meet the patient at least 3 times a week

Selection will be made from clients of an Alzheimer day care centre in Vienna (CS Rennweg).

Precondition: CS experts to see advantages for their clients coming from Domeo.

3.3.2. Interviewers team

Description of the team that will realize the interviews:

- Social scientist (ethics specialist TUW)
- Specialized registered health and hospital nurse/DGKS (CS)
- Researcher (TUW)
- IT specialist (TUW)

Role of team members in the interview procedure:

- Social scientist: providing the presentation, leading the interview
- DGKS: monitoring of end user status, helping to interpret the answers
- Researcher: recording the answers
- IT specialist: providing the demonstration, giving technical assistance

Technical aspects (recording the session, time constraints, schedule, location for interviews):

It is planned that all participants are invited to the laboratory of TUW, however, it may be requested that the the interviews be organized in the day care centre, depending on the health status of the end users. If necessary, transfer will be provided. Members of the focus groups will watch together the presentation and demonstration, however they are asked not to comment on what they see. Following the presentation the members of the three groups will be divided to focus groups. Depending on approval of the participants the sessions will be audio and/or video recorded.

Prior to the interviews a pilot with experts from the day care centre will be held to define and refine the detailed procedure.

Information sheet and Consent form:

The participants will be provided information on the project and the focus group prior to the day of the presentation and interview. A mixture of oral, written, and visual information will be used to familiarize participants with the event and the particular tasks. Participants will be asked whether they would like to participate in the focus group. They will be informed about the duration of their participation, about the project, and the fact that they can drop out at any time without giving a reason. They will also be informed about the audiovisual recording, its purpose, and uses. An informed consent form will be signed by all participants (patients and care givers). All participants are free to have breaks and/or end their participation at any time.

3.3.3. Ethical and confidentiality issues

How ethical aspects will be considered:

This focus group is not considered as a clinical trial, only a data collection, for this reason the approval of a local ethics committee, or, institutional review board is sufficient¹. In the Austrian case, approval will be sought from the SC. To ensure that the research plan is as appropriate as possible for the users, the setting of the focus groups will be designed together with the care personnel of SC. After the pilot with the care personnel and experts of the SC, the refined research plan will be submitted for internal approval at the SC. In collecting the data, the participants will be pseudonymized; this means that each subject will receive a code and only this code will appear on any collected material. There will be a reference list with the number and the names of the subjects, which will be stored separately in a safe place with controlled access. There is an insurance covering potential damage and injuries.

¹ Requirements to get approval: Safety of equipment, visible advantage for users, sound ethical and privacy concept. Approval can take several weeks for processing, even longer during summer time.

4. Conclusion

This document presented the common methodology and tools for focus group approach, to be used by partners during users interviews.

The local implementation was defined in terms of: targeted population to be interviewed and criteria for selection, care givers and relative selection, description and role of the medical team as well as technical aspects like session recording and how interviews have to be conducted.

The results of the users interviews will be analysed to get information in terms of acceptability and privacy, pertinence of services, costs and funding, possible obstacles, motivation level to use the proposed services, organisational issues. This will be detailed in a next deliverable.

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