

Computer-Supported Co-operative Working “Intergenerational Communication”

This document describes the course-work to be completed by the students who are taking the module on CSCW in the academic year 2010/2011.

Summary:

First stage (“think aloud protocols”):

Second stage (“longitudinal study”):

Follow up questionnaires:

Learning outcomes:

Deadline:

Objectives:

Methodology:

Help and contact information:

Marking scheme:

Summary:

The assignment consists of the evaluation of a communication platform aimed at **Elderly users** and their **Young relatives** called the “What’s Up” app.

First stage (“[think aloud protocols](#)”):

Record “think aloud” protocol videos of elders using [WhatsUp Display](#) and analyze them using a [template](#) that will be provided.

Second stage (“[longitudinal study](#)”):

Record a log of activities during a 2-week period of usage of [WhatsUp](#) where students will use the app to share moments with a pair of elders.

Follow up questionnaires:

After each stage of the user study, participants will complete a follow-up questionnaire to capture additional information about the experience

Mark component¹: Group work = 100% (50% of total module mark)

Learning outcomes:

The students will engage in the evaluation of a social computing artifact while trying to apply chief methodologies of CSCW. The project is designed to give students a first-hand experience of an user study and evaluation project. The evaluation based on the following three activities:

¹ The project will include both individual and group activities. Students will hand-in evidence of their individual work (interview transcripts and data analysis), which will be marked for completeness and accuracy and influence the student’s mark in case of discrepancy with the group-work mark (+ - 5%). Students will also be invited to evaluate each group member contribution, including their own. Evidence of exceptional performance or sub-average contribution will be taken into consideration in the final mark.

1. Videos of users while they interact with a communication technology and express their thoughts at loud (think aloud protocols)
2. A longitudinal study based on the extended usage of the same communication technology over a period of 2 weeks.
3. A follow up questionnaire designed to capture the user's feedback about the experience

The students will learn how to run “**think aloud**” and “**longitudinal**” user studies, analyse and interpret the collected data within the theoretical frameworks introduced in the course, and write an evaluation report, including **design change proposals** based on the evaluation. Students will be exposed to typical group work dynamics, and will learn how to share information and coordinate tasks.

Deadline:

May 28th – the final report will be handed in to Christian Parra – alternatively the report need to be submitted at least 2 weeks before the date the students intend to take the exam

Objectives:

The assignment consists of the evaluation of a Communication Platform aimed to Elderly and their Young relatives called “What’s Up”, to understand **usage difficulties** and **behavioral patterns** within elderly population. The major research questions addressed by the assignment are:

1. What are the key difficulties for elders using this type of technologies?
2. What are the potential effects of these technologies in their lives?
3. What type of interface do they prefer in terms of number of features?
4. What type of information and activities do young people share and elderly people enjoy?
5. What motivates young users to communicate with elderly?

In order to answer these questions, each student will perform the following activities:

1. Video Recording of **4 Elder users** while they use the app think aloud . Each elder participant will try **1 out of 4 difficulty levels** of interfaces available. After each think aloud session, the elder will complete a **follow up questionnaire** about the experience. The student will later transcribe the videos and analyze them using a [template](#) that will be provided.
2. Activity and actions recording of the app usage by **1 Elders and 1 Youngs** users willing to communicate during a period of **2 weeks** while a log of actions and activities is captured. Each pair of users will then answer a follow-up questionnaire. The student will analyze the logs and questionnaires.

3. Based on the results, a set of design change proposals must be concluded.

Methodology:

The project consists of the following activities

1. Methodology definition. The group will define a procedure for data collection. This includes sampling procedures, video recording methods, transcription protocol of videos and a format for activity logging. An indication of data analysis procedures should also be defined at this stage, although may be revised after the analyses of the first interviews.
 2. Data collection. Each student will record the videos and assist the participants following the methodology defined by the group. Transcripts of the videos and activity logs will be prepared by each student and shared with the group.
 3. Data analysis. Videos and transcripts data will be analysed by the group using a provided template for both the think aloud protocols and the activity logs as well as for the follow up questionnaire.
 4. Design suggestion: based on the data collected in the study the group will produce a set of prototypes to improve intergenerational communication.
 5. Report writing. The group will produce a 20 pages (max) report of the evaluation. Report writing is both an individual and a group activity. All members are expected to contribute to it and the report will be marked as a group deliverable not as a collection of chapters authored by different people. The report will be composed of:
 - Executive summary (1 page stating the main findings and recommendation form your study)
 - Related work (literature review on similar studies)
 - Objectives (stating and justifying the objectives of the study)
 - Methodology (clear description of the evaluation procedures)
 - Results (clear report of what was found during the study)
 - Conclusion (recommendations, suggestion for further research)
- Deliverables: a paper copy of the report and a CD rom including, Videos, Transcripts, Activity Logs, Analysis Spreadsheets and an electronic copy of the report

Help and contact information:

The work will be carried out independently by the student under the supervision of Cristhian Parra (parra@disi.unitn.it), who will organise and participate in group meetings. It is of utmost importance to the success of the project that each member of the group contributes to the work. In case of problems and conflicts which students are unable to deal with independently, they are invited to e-mail Prof. De Angeli (deangeli@disi.unitn.it), copying each group member in the e-mail. People who did NOT contribute to the group work will receive a lower mark (up to 0 in case of no contribution at all).

A reading list will be distributed separately with clearer design spec.

Marking scheme:

Presentation (10%);

Background research (20)%

- Validity and reliability of methodologies and procedures applied for design (30%);
- Critical analysis of evaluation results (20%);
- Quality of design suggestions (10%);
- Reflections and suggestions for further research and new design spaces (10%).