Exercise
Requirements of Techchnologies for Collaborative Interaction

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Summary & Learning goals

Requirements elicitation is about exploring the problem space and defining what technology for collaborative interaction will be developed.

Requirements range from functional to contextual such as e.g. social, environment and user goals.

Methods for gathering and analyzing data to elicit requirements will be practiced.

- Students should be able to use methods for requirements elicitation and qualitative data analysis in the design of technology for collaborative interaction.
- Students should be able to formulate requirements in the design of technology for collaborative interaction.
- Students should be able to apply requirement elicitation in the design of technology for collaborative interaction.
- Students should be able to evaluate in the design of technology for collaborative interaction.

Recommended readings

- Braun V. & Clarke V. (2006) Using thematic analysis in psychology, Qualitative Research in Psychology, 3:2, 77-101

- Schmidt K. & Rodden T. 1996. Chapter 11: Putting it all together: Requirements for a CSCW platform. Elsevier. https://doi.org/10.1016/s0923-8433(96)80013-x

- Didar Zowghi and Chad Coulin. 2005. Requirements elicitation: A survey of techniques, approaches, and tools. In Engineering and managing software requirements. Springer, 19-46. https://link.springer.com/content/pdf/10.1007/3-540-28244-0.pdf

Preparation

- Provide the lecture Requirements Elicitation in the design of Technologies for Collaborative Interaction.

- Divide into groups

- For this assignment, it is possible to either work with:
  - own collaborative system, service or product
  - some existing collaborative system, service or product

Requirements elicitation task - Own collaborative system

You are asked to be specific about what it is the collaborative system should do, described by requirements.

- Apply thematic analysis on the results from user research
  - Inductive or deductive approach? Key codes and themes?
  - Create a thematic map
- Formulate THREE design requirements based on the thematic analysis
  - Type of requirement (functional or non-functional?)
  - List at least 3 requirements as a MoSCoW prioritization
- Formulate ONE value-based requirement
  - From e.g. project value, thematic analysis, field data, etc
  - Report as a value hierarchy (using 3 levels)

Requirements elicitation task – Existing collaborative system

You are asked to be specific about what it is the system do, described by requirements.

- Formulate THREE design requirements Type of requirement (functional or non-functional?)
  - List at least 3 requirements as a MoSCoW prioritization
- Formulate ONE value-based requirement
  - From e.g. project value, use data, etc
  - Report as a value hierarchy (using 3 levels)

Reporting

- Report results on one slide for each task: (thematic map), three requirements, one value-based requirement
- Compare with one other group.
- Provide constructive peer-feedback using the list to the right.

- Discuss results in class.

How to Formulate Good requirements:

- Need - The requirement is Necessary
  - What would happen if you didn't include this requirement?
- Verifiable – The requirement is Verifiable
  - Evaluation – criteria of acceptance - How will you know you have met the requirement?
- Clear and concise
  - One requirement, 30-50 words, unambiguos, easy language.
  - Requirements use ***shall***.
    - (Statements of fact use *will*, Goals use *should)*.
  - Avoid *are*, *is, was, etc, and/or.*
- Complete
  - Contain all information and measures.
- Consistent
  - Same terminology.
- Viable and attainable
  - Budget, schedule, skills.

References

- Braun V. & Clarke V. (2006) Using thematic analysis in psychology, Qualitative Research in Psychology, 3:2, 77-101
- van de Poel I. (2013) Translating Values into Design Requirements. In: Michelfelder D., McCarthy N., Goldberg D. (eds) Philosophy and Engineering: Reflections on Practice, Principles and Process. Philosophy of Engineering and Technology, vol 15. Springer, Dordrecht. https://doi.org/10.1007/978-94-007-7762-0_20
- About MoSCoW
  - https://www.projectsmart.co.uk/moscow-method.php
- About user requirements:
  - http://www.projectsmart.com/project-management/getting-realistic-user-requirements.php

https://tedco.se/

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