



Requirements Engineering II

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Assignment 3: Requirements Elicitation

1. Tasks

- Read the mandatory items in the reading list
- Be prepared to answer the questions given below in class
- Prepare a 15 minutes presentation (5-10 slides) on the theme assigned to your course group. Browse/read additional papers and/or web pages where necessary.
- Compare [Maiden, Gitzikis and Robertson 2004] and [Maiden and Robertson 2005]. Identify the message and the intended audience for both papers. What are the commonalities and the differences? Estimate the percentage of overlap.

2. Reading list

Mandatory reading

[Gougen and Linde 1993] and [Hickey and Davis 2003] give an overview of requirements elicitation techniques and how to select appropriate techniques. [Potts, Takahashi and Antón 1994] describe an inquiry-based elicitation and analysis process. [Beyer and Holtzblatt 1999] deal with the problem of how to understand the stakeholders' needs. [Robertson 2002] advocates out-of-the-box thinking when identifying stakeholders and their needs. [Maiden, Gitzikis and Robertson 2004] and [Maiden and Robertson 2005] deal with the issue of creativity in requirements engineering.

Mandatory browsing

[Gottesdiener 2006]

Optional reading

[Cohene and Easterbrook 2005], [Gottesdiener 2002], [Lloyd, Rosson and Arthur 2002], [Maiden and Gizikis 2001], [Nuseibeh, Kramer and Finkelstein 1993]

3. Questions

- What are the most popular techniques for requirements elicitation?
- How do we select appropriate techniques in a given situation?
- How can we identify the stakeholders' real needs (beyond what they are telling us)?
- Why does creativity matter in Requirements Engineering?
- What are the relationships between requirements elicitation and goal-oriented Requirements Engineering?

4. Themes for presentation

(Will be assigned by the research assistant who tutors this course; your group can apply for the theme you would like to work on)

- A. Requirements elicitation techniques, their selection and effectiveness
- B. Capturing the stakeholders' needs in Requirements Engineering
- C. The role of creativity in Requirements Engineering

References

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- Hickey, A.M. and A.M. Davis, (2003). Elicitation Technique Selection: How Do Experts Do It? *Proceedings of the 11th IEEE International Requirements Engineering Conference (RE'03)*, Monterey Bay, USA. 169-178.
- Lloyd, W.J., M.B. Rosson, J.D. Arthur (2002). Effectiveness of Elicitation Techniques in Distributed Requirements Engineering. *Proceedings of the IEEE Joint International Requirements Engineering Conference (RE'02)*, Essen, Germany. 311-318.
- Maiden, N. and A. Gizikis (2001). Where Do Requirements Come From? *IEEE Software* **18**, 5 (Sept./Oct. 2001). 10-12.
- Maiden, N., A. Gizikis, S. Robertson (2004). Provoking Creativity: Imagine What Your Requirements Could Be Like. *IEEE Software* **21**, 5 (Sept./Oct. 2005). 68-75.
- Maiden, N. and S. Robertson (2005). Integrating Creativity into Requirements Processes: Experiences with an Air Traffic Management System. *Proceedings of the 13th IEEE International Requirements Engineering Conference (RE'05)*, Paris, France. 105-114.
- Potts C. , K. Takahashi, A. Antón (1994). Inquiry-Based Requirements Analysis. *IEEE Software* **11**, 2 (Mar/Apr 1994). 21-32. (Paper was presented at the First IEEE International Conference on Requirements Engineering, but as a one of three best papers published not in the proceedings, but in IEEE Software.)
- Robertson, J. (2002). Eureka! Why Analysts Should Invent Requirements. *IEEE Software* **19**, 4 (Jul./Aug. 2002). 20-22.