Automatic documentation of results during online architectural meetings

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Capturing and explicitly documenting decisions enables reasoning and decision support [1]

Manual effort, time and cost of explicit documentation is a concern for practitioners

Automatic design decision detection becomes highly advantageous
Motivation

Many decisions are implicitly made in **online meetings**

**Virtual Online Assistant** can help to document, review and refer back to made decisions

**Reflection** can help to challenge the thinking behind design reasoning [2]
## Research Questions

<table>
<thead>
<tr>
<th>Research Question 1</th>
<th>What are the requirements for the system that automatically detects design decisions in online meetings?</th>
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<tbody>
<tr>
<td>Research Question 2</td>
<td>How to identify, extract and document design decisions in online meetings?</td>
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<tr>
<td>Research Question 3</td>
<td>How does documenting design decisions made in online meetings benefit architects?</td>
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</tbody>
</table>
### Interview phases

- **Questions about expertise** (2 questions)
- **Questions about project organization** (7 questions)
- **Questions about current challenges** (5 questions)
- **Questions about personal opinion on the system** (9 questions)

### Planning

- Cooperation with UXD and RE departments
- Semi-structured interview
- 23 open questions
- 9 interviewees (so far)
- Mostly senior architects and product owners
- Ø 13 years of experience in IT industry
- Planned duration of the interview: 30 minutes, without interruptions
- Question catalog was not provided to the interviewees in advance or during the interview
Interview

Goal:
To understand participants’:
• Current challenges faced with the existing Systems
• View of an Assistive Bot during a Virtual meeting Scenario

Current results:
Gathered feedback concerning:
• The proposed use cases
• Information the bot should capture
• Desired degree of intrusiveness of the bot
• Usefulness of such a bot
• Other ideas

Next steps:
- Creating transcripts
- Coding transcripts
- Consolidating the list of requirements
Research Approach

1. Literature review
2. Design and conduct interviews (RQ1)
   1) Transcribe interview recordings
   2) Elicit requirements
3. Data collection and analysis
   o AMI corpus
   o Meeting recordings
4. Technical implementation (RQ2)
   o Rasa NLU
5. Validation and evaluation (RQ3)
   o What is the quality of the proposed solution?
   o Were the needs identified by RQ1 met?
### Timeline

**Start date:** 15.12.2018  
**End date:** 15.06.2019

<table>
<thead>
<tr>
<th>Activities</th>
<th>December</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
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<tbody>
<tr>
<td>Literature review</td>
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<tr>
<td>Interview design and conduction</td>
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<tr>
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<tr>
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<td>Validation and evaluation</td>
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<td></td>
<td></td>
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<td>3 weeks</td>
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<td></td>
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<td>10 weeks</td>
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</table>
References


3. Icons: [https://www.flaticon.com/](https://www.flaticon.com/)
M.Sc.

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