

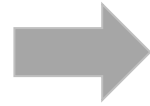
Automatic documentation of results during online architectural meetings

Oleksandra Klymenko, 11.01.2019, Garching b. München

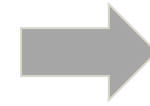
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Capturing and explicitly documenting decisions **enables reasoning and decision support** [1]



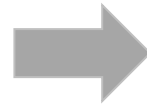
Manual effort, time and cost of explicit documentation is a **concern for practitioners**



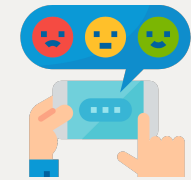
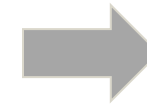
Automatic design decision detection becomes **highly advantageous**



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 Question 1

What are the requirements for the system that automatically detects design decisions in online meetings?

Research Question 2

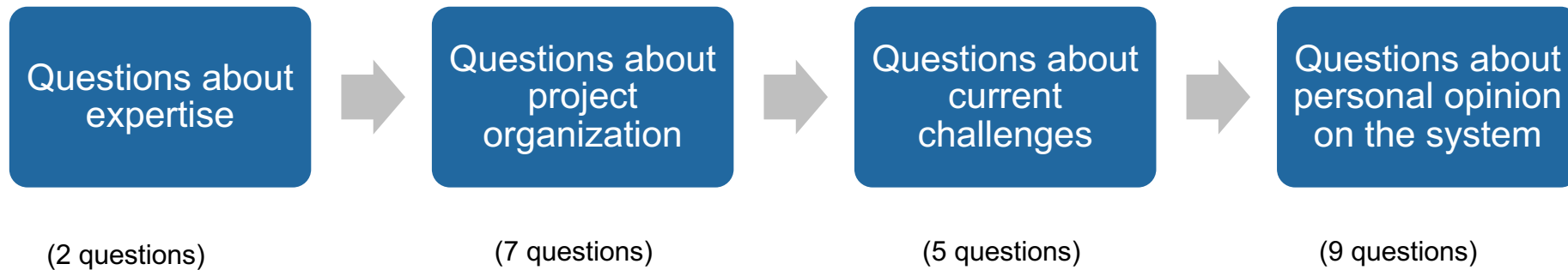
How to identify, extract and document design decisions in online meetings?

Research Question 3

How does documenting design decisions made in online meetings benefit architects?



Interview phases



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

Goal:

To understand participants':

- Current challenges faced with the existing Systems
- View of an Assistive Bot during a Virtual meeting Scenario

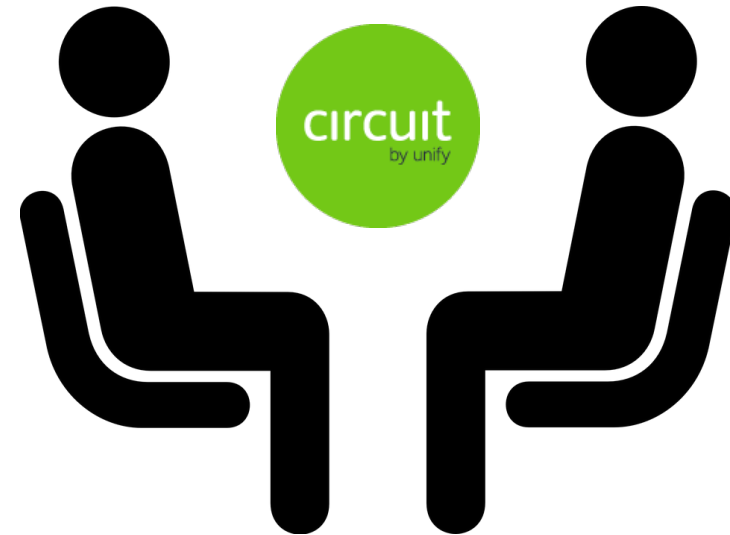
Current results:

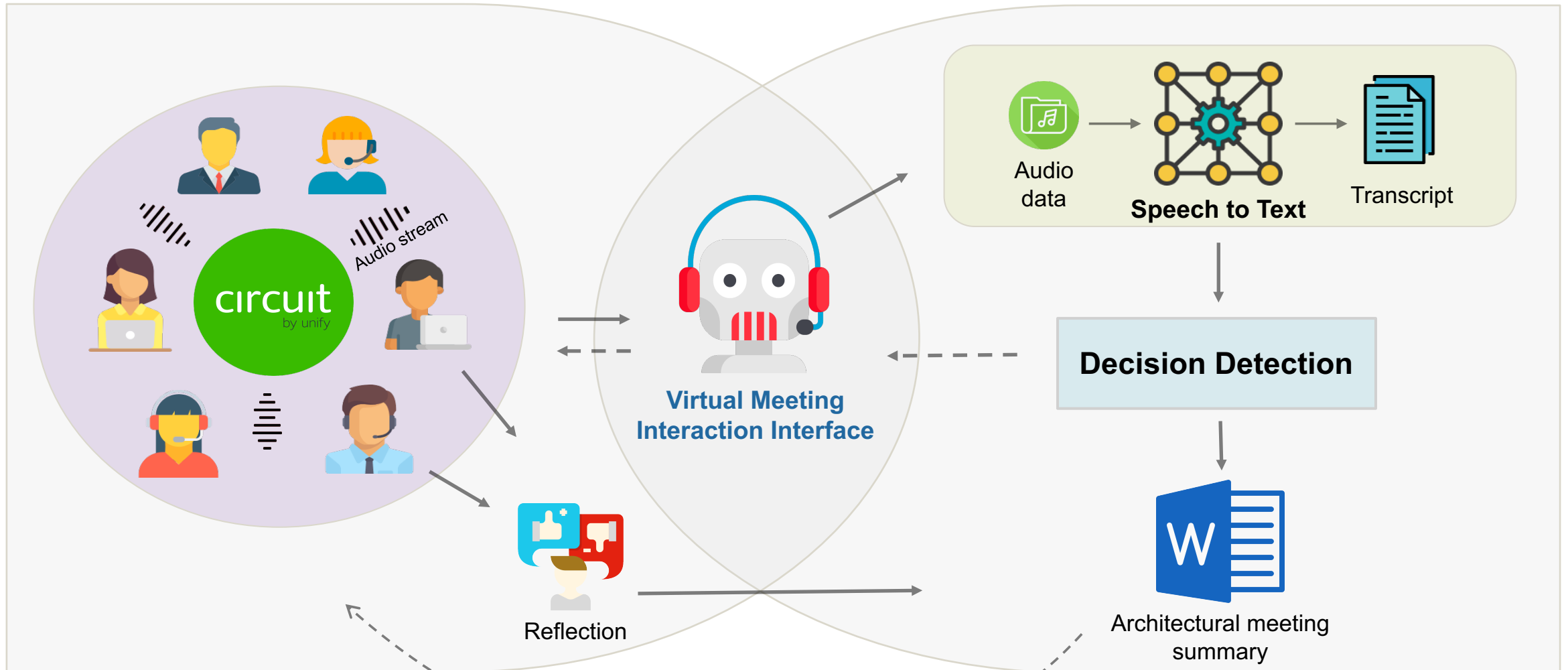
Gathered feedback concerning:

- 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





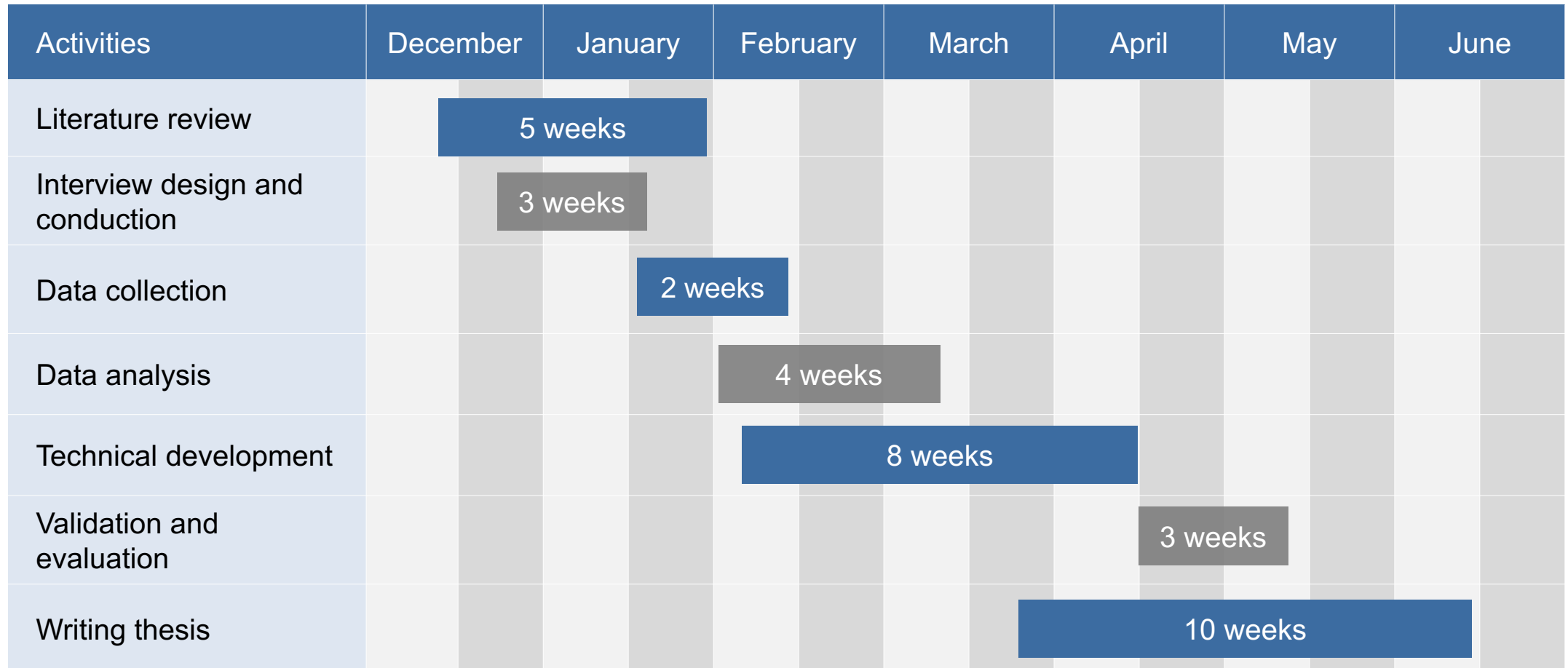
Research Approach

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

Timeline

Start date: 15.12.2018

End date: 15.06.2019



References

1. Bhat, Manoj, et al. "Automatic extraction of design decisions from issue management systems: a machine learning based approach." *European Conference on Software Architecture*. Springer, Cham, 2017
2. Razavian, Maryam, et al. "Reflective approach for software design decision making." *Software Architectures (QRASA), 2016 Qualitative Reasoning about*. IEEE, 2016.
3. Icons: <https://www.flaticon.com/>



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