



Conversational Agents and Speech Interfaces for Learning ()



# Another Hackathon

Tobias Thelen: Conversational Agents and speech interfaces  
for learning (WS 2019/2020)

## HackUcation – Der Bildungshackathon

#HackUcation heißt es am 7. März 2020 in Hagen. Die FernUni ruft Studierende auf, beim ersten Bildungshackathon auf dem Campus dabei zu sein. Jetzt anmelden.



Collage: FatCamera/Getty Images/FernUniversität

1 day hackathon at Fernuni Hagen

Saturday, March 7th 2020

10:00-22:00

4 tracks:

1. Wir gehen auf Trend-Scouting: Wie lassen sich neue Trends aus der Arbeitswelt für den Hochschulbereich aufspüren und in den Uni-Alltag integrieren – zum Beispiel Agilität?
2. Chatbots oder Sprachassistenten? Wie lassen sich Aspekte von Künstlicher Intelligenz (KI) sinnvoll innerhalb der Lehre einsetzen?
3. Online-Praktika oder interkulturelle Vernetzung – Mit welchen Tools kann ein Studium internationaler werden?
4. Zwischen Zeitmanagement und Motivation. Ideen für die moderne Organisation eines Fernstudiums sind gefragt. Welche Strategien könnten funktionieren?

Travel expenses can be covered.

<https://www.fernuni-hagen.de/universitaet/aktuelles/2020/01/hackathon-an-der-fernuni.shtml>



# Deliverables

- Final Presentation
- Report:
  - Similar to a conference paper for a system demonstration.
  - Structure and formatting guidelines will be provided
  - At most 6 pages
- Video:
  - Should demonstrate key features of your implementation
  - At most 4 minutes
- Evaluation and grading criteria will be published
- Deadline: March 31st 2020



# Final presentation

When and what to present



# Final presentation

- Each group has to present their current state of work:
  - in 5-15 minutes
  - in one of the last three meetings (see Stud.IP pad to make a reservation for a time slot)
  - if possible, with and by all group members
- Presentations should include:
  - as a reminder/update: your idea and goal for technology and learning scenario
  - an interactive presentation of the current state of work (i.e. show a running prototype)
  - a personal statement: what are you lessons learned so far?



# Final report

- Formatting guidelines:
  - no strict guidelines
  - use A4 paper size, font size max. 12 points
  - use a consistent style



# Report structure

- Structure:
  - Problem description
    - Describe your learning scenario and target group
    - Describe the technology you want to use (including a short explanation of that technology including at least 2 references)
  - Designing your solution
    - Describe the didactical design, interaction design and technical design of your solution: How do you use the technological possibilities to achieve your didactic goals? (perhaps as a requirements analysis, see next slide) How do you use language?
  - Describing your implementation
    - Describe the technical architecture (including rooms and objects for Inform, used handlers for Telegram bots, ...)
    - Provide more information on interesting details, including source code snippets, screenshots, ...
  - Summary:
    - Reflection: Did you achieve your goals? If not, why not? What turned out to be more difficult than expected? What was easier than expected?
    - Your estimation: Is the selected technology suitable for the selected learning scenario?
    - Outlook: How could your prototype be improved? What would have to be changed?



# Requirements analysis

- Typical structure of an engineering thesis:
  1. Describe theoretical background and technological and research state of the art
  2. Describe a given problem and its context (and sometimes additional empirical evidence on the problem)
  3. Derive a set of requirements from your problem and its context, e.g.:
    1. "The program must have two modes: Explanation and practice."
    2. "In explanation mode, the program has to identify unknown facts and explain them."
    3. "In practice mode, it has to present a random set of questions from known facts and give feedback to the user's response."
  4. For each of the requirements:
    1. Systematically describe possible solutions with regard to chapter 1.
    2. Explain how you decided and why.
    3. Describe the implemented solution.
  5. Evaluate your solution: Does it meet the requirements?





# Recommendation for your report

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- Identify 3 or 4 requirements, derived from
  - your learning scenario
  - your target group
  - requirements from the seminar (use language as an important part of the interaction design)
- Structure the description of your implementation by these requirements
- Instead of a formal evaluation: Give your own impression and estimation



# Video

- Video:
  - Should demonstrate key features of your implementation
  - At most 4 minutes
- Simplest way:
  - Use a simple screen recording tool (Windows 10: use the builtin X-Box Game Bar by pressing Windows+G)
  - Record a sample session with your tool
  - Provide explanations:
    - Either by an audio comment recorded along with your screen recording
    - Or with inter-titles from a presentation software (e.g. prepare 4 slides and switch between slides and your software or arrange windows next to each other)



# Video

- "Pro" way: Use a tool like Camtasia (limited time demo version available)
- Tips:
  - Simple way is enough!
  - The purpose of the video is to give a live impression of your tool
  - Make a short script of your interactive presentation and test it
  - Don't make a full script of what you want to say
  - If you record audio, just give a natural description, slips of the tongue etc. are no problem!
  - It would not be necessary to spend more than 1-2 hours with the video



# Grading criteria

How your grades will be calculated



# Grading criteria

- Your implementation / presentation video (50)
  - Formal aspects of video (length, image and sound quality) (5)
  - Quality of video presentation (completeness, argumentation) (10)
  - Quality of user interface (see today's guidelines) (15)
  - Technical quality of implementation (10)
  - Didactical quality of implementation (10)
- Submitted Paper (50)
  - Formal aspects (length, scientific language, consistent formatting, proper referencing) (10)
  - Clear description of learning scenario and target group (10)
  - Clear description of technical implementation (10)
  - Originality of approach (10)
  - Discussion of limitations, possible additions (10)