

Bachelor project: Conceptual Modeling and Information Systems Design in Massive Online Open Courses

Semester: Sommersemester 2017

Language: English

Motivation

The Massive Open Online Course (MOOC) is a rapidly evolving phenomenon stimulating discussions in universities around the world. A central theme of these discussions is, on the one hand, the potential of the MOOC to disrupt the way universities do business, on the other hand, the need to find new ways of designing the learning materials and ensuring the involvement of users.

Description

The aim of this bachelor project is to identify and investigate different MOOCs offered in a widely understood area of conceptual modeling and information system design and development. The found courses should be documented and compared using the dimensions and criteria developed within the project. The special focus should be placed on the materials and activities made available, especially the modeling tasks and assignments as well as the way they are evaluated. In addition, based on the reported cases regarding the teaching experiences in the conceptual modeling domain, e.g., with automated correction of created models, the critical assessment of this issue should be conducted. Finally, for the selected areas of conceptual modeling (e.g., static perspective (data modeling) or dynamic perspective (e.g., process modeling)) a proposition should be made regarding the type of modeling tasks that would be suitable for e-learning and supporting tools etc. as well as exemplary tasks should be defined/implemented. Depending on the size of the team, the development of a prototype-application being able to assess some aspects of created models, may be part of the project.

Therefore, the project encompasses:

1. Identification and analysis, with the help of agreed upon criteria, of existing MOOCs in the area of widely understood conceptual modeling and information system design.
2. Identification and analysis of approaches and attempts to automate the assessment of modeling assignments (also outside of the analyzed MOOCs).
3. Preparing a prototype/recommendation regarding the types of tasks/tools etc.
4. Preparing a project report and documentation.

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Size of the group: 2-4

Expected outcomes: Project report describing the results of the work, prototype/exemplary tasks, documentation.

Application procedure: Please apply via email to the supervisor. Please attach a short letter of motivation (app. ½ A4 page) and a recent performance record ('Leistungsnachweis'). You can apply individually or in a group of 2-4 participants (in this case each person should still send a separate e-mail, however point to the other members of the group). In case you are applying also for other projects, please mention it in the email.

Application deadline: 05.05.2017