The Chair for Technology and Innovation Management (Prof. Dr. Joachim Henkel) at the TUM School of Management is offering an interdisciplinary research project (IDP):

OnlineTED: A Novel Web-based Audience Response System for Higher Education

Background:

Audience response (AR) systems are increasingly used in higher education. However, high costs and complexity of conventional AR systems often limit their use. "OnlineTED" is a novel AR system that is platform independent and does not require hardware clickers or additional software to be installed. "OnlineTED" was developed at Technische Universität München (TUM) based on Hypertext Preprocessor (PHP) with a My Structured Query Language (MySQL)-database as server- and Javascript as client-side programming languages. "OnlineTED" enables lecturers to create and manage question sets online and start polls inclass via a web-browser. Students can participate in the polls with any internet-enabled device (smartphones, tablet-PCs or laptops). A paperbased survey was conducted with undergraduate medical students and lecturers at TUM to compare "OnlineTED" with conventional AR systems using clickers. "OnlineTED" received above-average evaluation results by both students and lecturers at TUM and was seen on par or superior to conventional AR systems.

Aim:

Lecturers at TUM already use "OnlineTED" regularly. The use could be extended if further features would be implemented.

For example:
- Competition mode (two groups play against each other in the auditorium)
- Optimizing the administration of questions
- Tag Cloud (auditorium can submit headwords)

Other features are possible. The scope of the project depends on the number of students working on the IDP and can be discussed with the supervisors.

Your profile

You are
- interested in developing a program further that makes learning at TUM more interactive and more exciting
- creative in using your knowledge, like to work structured and result-driven, and are most motivated when you understand the meaning of what you are doing
- skilled in PHP, MySQL, and Javascript

Following IDP rules, the project can be done with one student, but a group of up to three students would be more suitable due to the project scope.

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