Facilitating Classroom Questioning and Participation through Mobile Technologies

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Abstract

Research shows that traditional lecture methods, in which instructors talk and students listen, dominate higher education classrooms. While most instructors encourage and welcome questions, ample evidence suggests that students do not ask questions in the classroom. One reason might be that such lectures aren’t really designed for questions. The instructor has an agenda that has to be squeezed into a limited amount of time. Furthermore, as the number of students in a classroom increase, opportunities for interaction seem to decrease since it is practically infeasible for 100 students to each ask a question during a 50-minute lecture. Nonetheless, the most widespread reason that students might be hesitant to ask questions in class relates primarily to embarrassment. Students are afraid that their question might be foolish and thus embarrass themselves in the eyes of the instructor or in the eyes of their classmates.

This paper presents an innovative educational application that runs on mobile phones and enables students to anonymously ask questions during a lecture. The paper discusses the pedagogical considerations and design decisions for both the student and lecturer components of this educational system which also enables an online library of real-time questions and answers. It then discusses the architecture and technologies that were used for the development of the mobile application. Finally, the paper concludes with an evaluation of the system and discussion for further enhancements.