



Teaching Programming Online

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Abstract

Online education has given opportunities to people who traditionally do not have access to universities. However, we still need more empirical studies to gain better understanding on how to provide quality online education. Comparing to subjects such as history, philosophy, math, and literature etc, teaching online programming course faces unique challenges: due to the fast pace of technology development, the content of the IT courses need to be updated much more frequently to stay relevant. Also, learning to program is a demanding and complicated process. Students, especially beginners, would need constant guidance. In an online environment however, most students live in different time zones, they would not have the benefits of having instant feedback from professors that their peers in the classroom enjoy. Furthermore, one very important aspect of learning is to learn from each other, to see how other students approach the same problem, and learn to work together as a team. It is especially important in terms of learning how to program. In an online environment, students would have more difficulties to do this than in a traditional computer lab.

This paper describes and discusses our journey with redesigning and teaching an online programming course from 2008 to 2010. By examining issues we encountered in the process of designing and teaching this course, how we address the above mentioned issues, how we use students' feedback to improve course content and adjust teaching styles, the impact of these changes on students, and the lessons we have learned, hopefully it will shed lights on offering quality online learning experience.