

# Abstract

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## **Adaptive feedback generation to support teachers in web-based distance education**

This work examines the application of user-adapted technologies to address problems experienced in web-based distance education. We have proposed an approach to support distance learning instructors by offering advice that points at problems faced by students; suggests possible activities to address these problems. The paper describes an original feedback generation framework which utilises student, group, class models derived from tracking data in web course management systems; follows a taxonomy of feedback categories to recognise situations that are brought to the instructors' attention. The results of an empirical study in an online learning course point at benefits of the generated feedback to both instructors; students. Teachers can get a better understanding of their students by knowing what problems they may be facing, when they are behind ahead of their peers, who can help them; how; what roles can be assigned in discussion forums. This, in turn, can have a positive effect on students who can receive feedback tailored to their needs; problems. The evaluation study points at issues that can be related in general to planning empirical evaluations of user-adapted systems in realistic web-based learning settings.