

[Keynote Talk]: The Challenges and Solutions for Developing Mobile Apps in a Small University

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Abstract : As computing technology advances, smartphone applications can assist in student learning in a pervasive way. For example, the idea of using a mobile apps for the PA Common Trees, Pests, Pathogens, in the field as a reference tool allows middle school students to learn about trees and associated pests/pathogens without bringing a textbook. In the past, some researches study the mobile software Mobile Application Software Development Life Cycle (MADLC) including traditional models such as the waterfall model, or more recent Agile Methods. Others study the issues related to the software development process. Very little research is on the development of three heterogenous mobile systems simultaneously in a small university where the availability of developers is an issue. In this paper, we propose to use a hybride model of Waterfall Model and the Agile Model, known as the Relay Race Methodology (RRM) in practice, to reflect the concept of racing and relaying for scheduling. Based on the development project, we observe that the modeling of the transition between any two phases is manifested naturally. Thus, we claim that the RRM model can provide a de facto rather than a de jure basis for the core concept in the MADLC. In this paper, the background of the project is introduced first. Then, the challenges are pointed out followed by our solutions. Finally, the experiences learned and the future work are presented.

Keywords : agile methods, mobile apps, software process model, waterfall model

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