

Foreword

by Yuanchun Shi

Nowadays, handhelds, especially smart phones, are becoming more and more popular which will be always with us. They are ideal user devices for learning. Researchers have paid attention to related topics of learning with mobile technologies. This book presents the latest researches and practice on methods for developing and deploying learning systems with mobile devices.

Student response system (SRS) plays an important role in learning systems which enable students and trainers to provide definite responses to many questions during the lesson with an immediate feedback to the students about their level of knowledge and understanding. By mobile devices, we can change the state that SRS were little used by teachers, and benefit of using mobile SRS for teaching. Challenges lay on many aspects. With several chapters, this book shows us the key technologies on 1) Database Management Architecture design which provides a relatively stable, independent and extensible data model for faster data storage and retrieval; 2) Web Service model with use-case specific interfaces makes strong use of open and flexible standards to allow external software to control the service which supports as many students using the service in parallel as possible; 3) Middleware Architecture being independent, scalable and flexible of using cloud computing, minimizing the risk of any alteration, data loss, data abuse, data misuse of XML critical business data information, are big consideration in the architecture; and 4) Developing and Evaluating Practical Methodologies are demonstrated in several cases which give insight into how SRS fit into the learning process.

Addressing the needs of collaborating with teaching events in classroom, especially the Global awareness towards some more environmentally friendly practices, development issues on mobile devices of blended learning activities that deploy an explorative and collaborative didactical framework with a combination of in-class instruction, virtual experimentation, storytelling practices, and on-line collaboration, are also carried out in this book.

As a rising topic, mobile learning technologies are widely used, and deriving more and more research issues as well. This book gives not only the state of the art, but also the potential requirements with research value. The book will be an opportune reference for both mobile learning system developers and service providers.

Yuanchun Shi
Tsinghua University, China