Computer Science and Educational Software Design
A Resource for Multidisciplinary Work in Technology Enhanced Learning

Developing educational software requires thinking, problematizing, representing, modeling, implementing and analyzing pedagogical objectives and issues, as well as conceptual models and software architectures. Computer scientists face the difficulty of understanding the particular issues and phenomena to be taken into account in educational software projects and of avoiding a naïve technocentered perspective. On the other hand, actors with backgrounds in human or social sciences face the difficulty of understanding software design and implementation issues, and how computer scientists engage in these tasks.

Features
► Truly interdisciplinary approach to combine the viewpoints of computer scientists and educational actors ► Provides practical and context-related hints on how to deal with the peculiarities of educational software design and development ► Complemented by several examples illustrating issues and propositions ► Based on the author’s more than 20 years’ experience in projects on technology-enhanced learning

Contents

Fields of interest
Computers and Education; Educational Technology; Computer Appl. in Social and Behavioral Sciences

Target groups
Research

Type of publication
Monograph

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Software Architecture
A Comprehensive Framework and Guide for Practitioners

As a software architect you work in a wide-ranging and dynamic environment. You have to understand the needs of your customer, design architectures that satisfy both functional and non-functional requirements, and lead development teams in implementing the architecture. And it is an environment that is constantly changing: trends such as cloud computing, service orientation, and model-driven procedures open up new architectural possibilities.

Features
► Provides an encompassing and consistent architectural taxonomy ► Provides a holistic framework including both people and technology management ► Provides a technology-independent perspective based on best practices ► Authors combine for many years of industrial experiences and academic research

Contents

Fields of interest
Software Engineering; Management of Computing and Information Systems; Information Systems

Target groups
Professional/practitioner

Type of publication
Professional book

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