

Book Review: Software Metrics for Evaluating the Quality of the Mobile Applications from Educational Environment

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The book entitled Software metrics for evaluating the quality of the mobile applications from educational environment, published by ASE Publishing House in 2016, is a book with a very important objective: building the quality evaluation metrics for mobile applications used in educational environment.

Quality evaluation approaches are multiple and have many perspectives, so it has become an area of great importance for research.

In today's society, where mobile systems play a very important role, the development of mobile application quality assessment metrics, in a coherent view of the context in which they are used, is a top priority. The design of the main components of the system, which provide adequate quality of mobile applications for individual users or for organizations, are also points of continuous interest.

In view of the great popularity and diversity of mobile devices as well as applications for these devices, a very important aspect to be considered is the quality of these applications.

In this context, the present paper analyzes the current situation in the field, presenting the main models, systems and methods for evaluation of mobile applications, their positioning within the management systems of an organization, as well as personal contributions to the development of a metric system to evaluate mobile applications.

The book addresses an important area for both research and organizations of any kind, namely that of mobile application quality assessment. The need for such a work at the moment is beneficial for the realization of quality mobile applications in the educational environment.

The paper represents an original and unprecedented approach to the construction of metric systems characteristic of mobile applications in the educational environment.

The approach is based on the researches already made by the author during the doctoral stage, on the experimental results obtained, as well as on the foundations taken from the literature.

The author uses the knowledge gained from experience in the knowledge-based society and the development of mobile applications for the educational environment in the context of the implementation and exploitation of the latest ICT technologies and infrastructures.

The author was based on the specific process of engineering and reengineering of mobile applications, integrating and capitalizing on research in the doctoral stage by designing and implementing a software product on mobile application quality assessment.

The paper seeks the gradual presentation stage is the subject of research and the implementation of the presented concepts. The book is divided in eight chapters.

In the chapter named **Results in quality of mobile applications domain** is performed an analysis of existing theoretical results in the literature in the country and abroad as well as practical results obtained in Romania and abroad.

In the second chapter named **Typologies of complex mobile applications**, criteria for the classification of mobile applications are identified. Structures of mobile applications after development mode, after the use, by the volume of existing information data entry criterion and after the presentation of results are presented.

In the chapter entitled **Mobile application for educational environment**, categories of applications running on M-Learning environment, and mode of development of such applications are defined. Characteristics of mobile applications used in education is identifies.

In the chapter named **Systems of quality characteristics for mobile applications**, specific quality requirements of mobile applications are identified, the requirements of mobile devices and applications developed for these requirements to interface mobile device applications or resources that are used by the mobile application are analyzed.

The chapter **Used weights in developing the quality evaluation metrics for m-learning applications** describes how a questionnaire which was established for interrogation specialists in mobile application development and mobile application users. Based on the responses to the questionnaire are built weights to build the metrics.

In the chapter named **The way of building the evaluation quality metrics for m-learning application** a metric for determining the quality of mobile applications software is defined. For the new metric defined, its components are analyzing and identify their properties. This creates a system of software metrics component properties. Indicators are constructed to determine the quality of mobile applications are set types such indicators and built a system of indicators for mobile applications.

In the chapter entitled **Validation and refinement of quality evaluation metrics** techniques and procedures for validation and refinement of metrics for mobile applications are reviewed and an indicator metrics newly built refinery is built. For the verification and validation of software metrics for newly built prototype is developing a mobile application on which measurements are taken and used metric for determining its quality.

In the chapter named **Improvements of mobile applications quality**, the process of optimizing quality mobile applications is presented, bicriterial optimizing is defined and optimizing costs for mobile applications are analyzed. Influence factors involved in increasing the quality are identified and the ways to increase the software quality are established.

The paper ends with conclusions, a list of references and two annexes with the acronyms (Annex I) and used variables in the models and indicators (Annex II).

Through the content of the paper, the author answers questions about the models and mechanisms underlying the assessment of the quality of mobile applications in the educational environment, using the technologies and the IT tools. The paper is in the sphere of general interest in informatics, representing a scientific approach of high relevance and complexity.

The reading of the book contributes to acquiring knowledge on the development and use of software metrics to evaluate the quality of mobile applications.

This paper is intended for both undergraduate, master and doctoral students as well as mobile application developers and anyone interested in developing high quality mobile applications.