Seventh Workshop on Software Quality

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Abstract

Software Quality has been a major challenge throughout Information Technology projects. Whether it is in software development, in software integration or whether it is in the implementation or customization of shrink-wrapped software, quality is regarded as a major issue. In the last couple of decades, much software engineering research has focused on standards, methodologies and techniques for improving software quality, measuring software quality and software quality assurance. Most of this research is focused on the internal/development view of quality. More recent studies have made attempts to understand the stakeholder view of quality. With globalization, many new challenges affect software quality. Not only do we need to understand the many stakeholder views of quality, we now need to consider the cultural issues, and the outsourcing issues. The Seventh Workshop on Software Quality aims to bring together academic, industrial and commercial communities interested in software quality topics to discuss the different technologies being defined and used in the software quality area.

1. Introduction

Software users today are demanding higher quality than ever before and many of them are willing to pay a higher price for better quality software products. Mature IT organizations are setting up IT Governance frameworks to provide for accountability for the quality of the products they purchase and deploy. The Software Evaluation Framework, for example, considers the influence of both the development methodology and the background of the stakeholder in its attempt to evaluate software quality [1], [2], [3], [4]. The Stakeholder/Value Dependency Framework supports the view that there are many definitions of quality and many stakeholder priorities, which influence any software quality evaluation [5], [6]. In [7] and [8], quality is presented from the customer’s perspective and studies have shown that companies can generate higher revenue through increased customer satisfaction and improved product quality.

With the growing number of software projects spanning the globe, and the large numbers of outsourcing projects to countries like India and China, appreciating the cultural differences amongst the stakeholders is extremely important. Research, like that of Alami et al [9] is needed to help us understand the differences between cultures and how they affect software quality.

In an article titled ‘The Failure of Quality’, Kitchenham challenges the software industry in their approach to quality. She states that quality systems and procedures have become a means of avoiding blame rather than a means of delivering an excellent product or service [10]. She concludes that we need procedures that support efforts for producing quality software products rather than mindless bureaucracy that influences trust and goodwill between stakeholders.

Today, organizations in search of competitive advantages, have invested heavily in automating their business processes. Greater reliance is placed on software products, to the point where software has a critical and strategic role in organizations’ business. With this level of importance and the reliance placed on software products, it has become important to set up IT Governance frameworks for accountability. We also need to improve the efficiency and productivity of the development and maintenance processes. As such, researchers and practitioners have been paying increasing attention to understanding quality and improving the quality of the software being developed. Some studies have focused on techniques and approaches to assure the quality of software products, whilst others have focused on the software development process, how to define it, evaluate it and
improve it. Many of these areas will be addressed during this workshop.

2. Workshop Goals

This workshop, which is co-located with ICSE 2009, the International Conference on Software Engineering, the premier software engineering conference, brings together academic, industrial and commercial communities interested in software quality in order to discuss the different technologies that have been defined and used in the software quality area.

The goal of the workshop is to discuss how well, and under what conditions, current and emerging software quality-related standards, methodologies, and techniques enable us to improve the quality of our software projects. Here, papers are solicited on such topics as the software quality-related aspects of:

- Cross-Cultural Issues in Software Quality
- Software Product Evaluation and Certification
- Software Process Definition, Evaluation and Improvement
- Software Quality Education
- Introduction of Software Quality Programs
- Methods and Tools for Quality Assurance
- Quality Metrics – in-process quality and customer views of quality
- Software Quality for Web-based and Object-Oriented development
- Total Quality Management
- Building quality into software products
- Project management and software quality
- Testing, Inspections, Walkthroughs and Reviews
- Combining Quality and Rapid Development.

3. Workshop Format

The workshop is designed to cover one day of presentations and discussions. Interested participants were invited to submit papers describing problems and experiences describing their current research into software quality.

Discussion points will be recorded for each topic and will consider:

- a set of current research efforts;
- a set of topics requiring further investigation;
- a list of research groups who have agreed to collaborate in their research area; and,
- a set of possible future trends.

Finally, the results of the discussions will be presented in the closing plenary session.

4. Steering Committee

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5. References


