EDITORIAL

In this issue

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The first paper, by Douglas Kirk, Marc Roper, and Murray Wood, is entitled "Identifying And Addressing Problems In Object-Oriented Framework Reuse". This paper investigates the major problems that occur during object-oriented framework reuse. The definition and reuse of frameworks is indeed widely perceived as an effective solution for maximizing reuse by providing classes and components that can be specialized. However, are frameworks always cost-effective? What are the factors affecting their usability? This paper is a very good example of something that we simply do not do enough in software engineering research: identify the real problems that need to be solved and analyze their root causes.

In the second paper, by Steve Counsell, George Loizou, and Rajaa Najjar entitled "Quality of Manual Data Collection in Java Software: an Empirical Investigation", the authors investigate an important practical issue when collecting quality measures in Java systems. In many situations, manual data collection is unavoidable or even preferable. An important concern is whether such manual data collection is reliable. Based on the investigation of five Java systems, this study shows that manual data collection is much more reliable than originally thought and that it is mostly driven by the quality of the code itself.

The third paper, by Raimund Moser, Barbara Russo, and Giancarlo Succi, entitled "Empirical Analysis On The Correlation Between GCC Compiler Warnings And Revision Numbers Of Source Files In Five Industrial Software Projects", investigates a practical and original strategy for identifying fault-prone files in C++ systems: can we use compiler warnings as indicators? This paper reports a study of five industrial projects in the telecommunication domain where a positive correlation is found between warnings and

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defects, thus suggesting a practical, low-cost alternative for identifying defect-prone files. This is particularly useful in contexts where there is little or no change history.

The fourth paper, by Allen Milewski, entitled "Global And Task Effects In Information-Seeking Among Software Engineers", investigates an issue which is at the crossroad of human and social factors and software engineering: how do software engineers retrieve relevant information to answer diagnostic or problem-solving questions? Results appear to be influenced by the nature of the tasks and the cultural background of developers, thus suggesting complex patterns. We have known for a long time that human, social, and organizational factors play an important role in the way developers perform their tasks. This, however, is a domain in which we know very little. This journal has a tradition of regularly publishing on such topics.

This issue contains a particularly diverse set of papers but what they have in common is their practical relevance to the development of complex, large scale software systems. Enjoy it!