Editorial

Special Issue on "Global Software Development and its Challenges"

During the last decade, more and more software projects have been developed in a geographically distributed manner. As a result, global software development (GSD) has become a standard for the software industry, giving organizations the chance to take advantage of global resource pools and the follow-the-sun strategy.

Research on GSD has been mainly focused so far on its very particular characteristics which bring many challenges for global software projects, not only by economic and organizational issues but also by a variety of difficulties related to time zones, languages and cultural differences which are the nature of geographically distributed environments.

However, even when many issues have been analysed and a number of strategies have been proposed over the last years, many aspects about globally distributed software projects still require a thorough development being as such interesting focuses of research.

Global software development is a discipline that has grown from practice and, as a result, it has influenced the research on academic environments. What makes it specially interesting is the fact that, as it is a young discipline, there are still many methods and techniques to be developed before we could say that global software development is a mature discipline. Therefore, the motivation of this special issue is presenting new proposals that aim to set advances about the global software development.

In this issue

Four works are presented in this Special Issue:

In "*Studying the Impact of Global Software Development Characteristics on Project Goals: A Causal Model*", Ansgar Lamersdorf and Jürgen Münch present a causal model whose goal is identifying the characteristics that differentiate GSD and collocated development, in order to understand why a large number of problems and project failures appear in GSD projects.

In a complementary way, in "*Analyzing and Evaluating the Main Factors that Challenge Global Software Development*", Gabriela Aranda, Aurora Vizcaíno and Mario Piattini propose a method with which to evaluate the factors that are related to GSD challenges as well as they propose a set of strategies that can be used in each case.

Furthermore, in "*Improving Distributed Software Development in Small and Medium Enterprises*", it authors (Miguel Jiménez, Aurora Vizcaíno, and Mario Piattini) provide a global vision of the challenges that distributed software development projects must face, specially oriented towards Small and Medium Enterprises (SMEs) and propose some strategies that can be seen as a part of a global software development methodology.

Finally, in "*CWS: An Awareness Tool to Support Starting Collaboration in Global Software Development*" its authors, Ramón R. Palacio, Alberto L. Morán, and Víctor M. González, address the lack of timely adequate opportunities for informal interaction and introduce the concept of Collaborative Working Spheres (CWS) which were proposed to accentuate the need of exchanging information between the members of a team, that work in a geographically distributed environment, in a simple manner.

Since globally distributed environments has become a common setting for work in software development organizations, the need of strong models, methods, processes, and tools has grown up during the last years. Even when significant advances have occurred in that direction, there are still many things to do to assure efficiency and effectiveness in global software development. Our goal is that this special issue would be a contribution in that direction and hope that the readers find its contents useful.

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