Preface

Agile is a relatively recent methodology used in the development process of a project. Therefore, it is important to share new emerging knowledge with the audiences interested in adopting an Agile mindset. The upcoming book, Emerging Innovations in Agile Software Development, focuses on the use of agile methodologies to manage, design, develop, test and maintain software projects. This book consists of fourteen chapters.

In “Design of a Framework to Implement Agility at Organizational Level: Organizational Agile Transformation” Jagadeesh Balakrishnan highlights compatibility problems with existing agile product development methodologies for companies laying foot for the first time in agile domain. To assist in such situation, He has provided guidelines for each phase of agile adoption respectively.

In “Rapid Agile Transformation at a Large IT Organization” Pan-Wei Ng describes agile transformation of an IT organization in China with 4000 people including contractors. At the team level, a practice architecture provided a roadmap for continuous improvement. This transformation had 44% reduction in development lead-time, 5% reduction in production defects and 22% reduction in production incidents and proved to be a win-win situation for everyone.

In “A Canvas for Capturing Context of Agile Adoption” Pan-Wei Ng identifies the reasons for which companies are not able to gain better customer response and quality using agile practices. To address this problem they propose capturing and describing agile adoption context visually using a set of architectural views.

In “Agile Software Development Challenges in Implementation and Adoption: Focusing on Large and Distributed Settings - Past Experiences, Emergent Topics” Abbas Moshref Razavi, Rodina Ahmad present the results of systematic literature review on agile software development challenges and identify mediating between agile projects and traditional forms of management, and, economic governance as major rival approaches that are emerging in response to these challenges.

In “Fixed Priced Projects in Agile: Fixed Projects in Agile Software Development Environments” Anuradha Chaminda Gajanayaka points out that why agile software development has been limited to time based contracts and not for time limited contracts. Issues were further explained using case studies which used agile software development concepts throughout planning, execution, monitoring, reporting, etc. for the project documentation.
Preface

In “A Transformation Approach for Scaling and Sustaining Agility at an Enterprise-Level: A Culture-Led Agile Transformation Approach” Ahmed Sidky explain how Sustainable, effective agile transformations affect all the elements of corporate culture such as, leadership style, leadership values, work structures, reward systems, processes, and of course the work habits of people.

In “Agile Assessment Methods and Approaches” Mina Ziaei Nafchi, Taghi Javdani Gandomani introduce the structure and main features of the existing agile assessment methods and providing a brief discussion on drawbacks of these methods.

In “A Survey of Agile Transition Models” Imran Ghani, Dayang Abang Jawawi, Nahmeh Niknejad, Seung Ryul Jeong and Murad Khan present a survey on existing models and frameworks available to guide organizations for agile transition. These models and frameworks may help the organizations to follow professionals’ suggestions during their migration from traditional environment to agile environment.

In “10 Years of Experience with Agile and Model Driven Software Development in a Legacy Platform” Chung-Yeung Pang discuss an agile and model driven approach to software development established while re-engineering project of a legacy IT system by modernizing COBOL application. This approach has been successfully applied in 13 projects since 2004 is presented.

In “Usability Engineering in Agile Software Development Processes” Muhammad Aminu Umar, Sahabi Ali Yusuf, Salami Sheidu Tenuche, Aminu Onimisi Abdulsalami, Aliyu Muhammad Kufena point out while in agile the focus is on technical and functional requirements not on end-user interaction, usability is usually only dealt with on the side. Combining this two in practice will go a long way in development of better product. Hence chapter puts together works on how usability engineering has been integrated with agile processes.

In “Agile Coaches and Champions: Two Hidden Facilitators of Agile Transition” Taghi Javdani Gandomani, Mina Ziaei Nafchi Conducted a large-scale research study showing that agile transformation need to be supported by several facilitators and identify its most important facilitators. Hence they present two hidden facilitators of agile transition, Agile coaches and Agile champions, which rarely have been taken into consideration. Both of these facilitators directly impress the people involved in the transition.

In “Product Ownership is a Team Sport” Shane Hastie describes that product ownership requires clarity of vision, alignment with organizational strategy, understanding of the development process and the ability to communicate with a wide variety of stakeholders across all levels both inside and outside the organization.

In “Behavior-Driven Development Using Specification by Example: An Approach for Delivering the Right Software Built in Right Way” Praveen Ramachandra Menon highlights a crucial problem seen often in software development that is bridging the communication gap between business and technical language and that it can be addressed with “Behavior Driven Development” (BDD) methodology supplemented with “Specification By Example” approach of delivering the right software that matters.

In “The Agility of Agile Methodology for Teaching and Learning Activities” Deshinta Arrova Dewi, Mohana Muniandy present review of literatures that shows the contribution of the agile methodology towards teaching and learning environment at university level. Later they offer options for the agile evaluation framework to consider academic environment as a tool to obtain the agile performance feedback in academic environment.
In the preparation of this book, we received many high quality contributions in response to our call for chapters. The number of contributors indicates that Agile Software Development is a promising technique transforming software industry. We are very grateful for the contributions and would like to thank all the authors for their efforts.

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