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Introduction to Agile and Lean Software Engineering Minitrack

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Over the last decade and a half the pendulum has swung decidedly towards agile and more recently lean software development and away from a more traditional software engineering approach. There are many who feel, however, that the pendulum may have swung too far and may need to move back to more of a middle ground between these approaches (and there are signs that it already is happening).

Now in its third year, this minitrack continues to explore the middle ground between traditional software engineering (TSE) and the new agile software development (ASD) and lean software development (LSD), or what we call agile and lean software engineering (ALSE). This year the minitrack includes seven contemporary and high quality international papers covering many aspects of agile and lean software development and engineering. As always it has a mixture of academic research and industry experience papers.

The minitrack commences with a case study paper by Rodríguez et al. that "provides empirical evidence of how lean software development can be combined with agile software development to enhance the software development process" in a paper entitled "Combining Lean Thinking and Agile Methods for Software Development." The paper makes it clear what lean thinking brings to agile software development.

Oorts et al. in their paper "Building Evolvable Software Using Normalized Systems Theory" looks at the application of the NS development process to a budget management application and explains the advantages of this approach. For those not familiar with the theory the paper also introduces the Normalized Systems Theory and its foundations.

The paper on "Guiding Flexibility Investment in Agile Architecting" by Fernández-Sánchez et al. presents a process to assist software architects in making decisions about flexibility investments in software architecture. Agile software development embraces continuous change but as the authors suggest, "designing for flexibility entails high costs and risk that comes with the assumption change will happen."

"Exploring the Relationship Between Organizational Adoption Motives and the Tailoring of Agile Methods" is the title and focus of the paper by Tripp et al. Through an exploratory study of the forces that impact the manner in which agile methods are tailored they find that various motives for agile adoption are associated with different configurations of project management and ASD approaches.

Scheerer et al. present a multiteam systems perspective on "Coordination in Large-Scale Agile Software Development" in teams of teams (employing agile and lean software development), particularly "to describe different conceptual strategy types for inter-team coordination."

Clark et al. present a paper proposing a move "Toward the Model Driven Organization" to ensure alignment of an organization's systems and its goals. In the paper they discuss the shortcomings of current alignment management approaches and present their MDO vision.

Aitken concludes the minitrack with a proposal for a "Dual Application Model for Agile Software Engineering" that reinvents the traditional logical model of software as a runnable application that is central to development. It is suggested that this approach brings to ASD more of the benefits of traditional software engineering without the pains.

This year we have a new co-chair in Jay Trimble and we are grateful for his assistance organizing the minitrack. We thank all the authors for submitting their papers and the many reviewers from around the world for their constructive and detailed reviews containing valuable feedback to help improve the papers. These papers are going to make this year's minitrack the most engaging and interesting for researchers and practitioners alike. We welcome everyone with an interest in this area to come along to hear the presentations and, most importantly, to contribute to the discussion at HICSS-47.

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