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# Agile Methods

9th Brazilian Workshop, WBMA 2018 Campinas, Brazil, October 4, 2018 Revised Selected Papers



Editors Graziela Simone Tonin Federal University of Fronteira Sul Chapecó, Santa Catarina, Brazil

Bernardo Estácio Farfetch Porto, Portugal Alfredo Goldman University of Sao Paulo Sao Paulo, São Paulo, Brazil

Eduardo Guerra National Institute for Space Research São José dos Campos, São Paulo, Brazil

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#### **Preface**

The 9th Brazilian Workshop on Agile Methods (WBMA 2018) was held on October 4, 2018, in Campinas, São Paulo, Brazil, The workshop is the research track in the Agile Brazil Conference. WBMA is an academic event that focuses on agile software development. This year's edition continued the history of success. Our past editions received a significant number of paper submissions with a number of attendees (students, researchers, and practitioners) from different countries. We repeated the success this year and influenced, even more, the academic integration in an industry context. We believe this integration creates ideas, opportunities, and innovations for all involved. We received 18 submissions. All the accepted papers were peer-reviewed by three referees and evaluated on the basis of technical quality, relevance, significance, and clarity. The Organizing Committee decided to accept six full papers and one short paper (40% acceptance rate). Accepted papers in this edition present empirical results and literature reviews on agile requirements validation in Brazilian software development companies, a survey on Brazilian software processes about whether to be agile or not, an evaluation of an agile maturity model, strategies to increase customer value in agile software development, a discussion toward an agile development environment, and a report on Scrum in a strongly hierarchical organization. The Organizing Committee awarded one prize in this edition, the best paper award. This CCIS volume comprises peer-reviewed versions of six full papers and one short paper. The organizers thank the Program Committee members for their contributions, and would especially like to thank all those who submitted papers, even though only a fraction could be accepted. We also thank Springer for producing these high-quality proceedings of WBMA 2018.

November 2018

Bernardo Estácio Graziela Simone Tonin

# **Organization**

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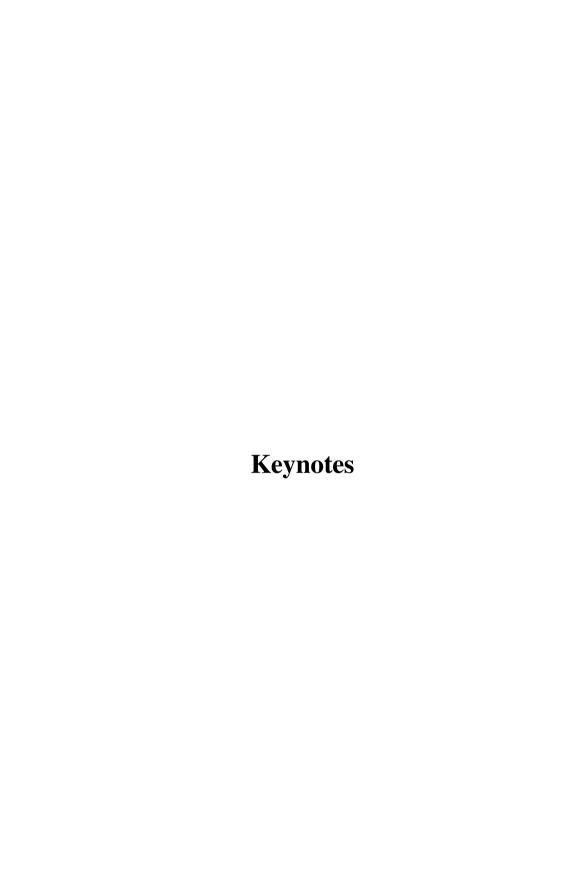
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FAPESP (Foundation for Research Support of the State of São Paulo) and Agile Brazil.



# **Cultivating Your Personal Design Heuristics**

#### Rebecca Wirfs-Brock

Wirfs-Brock Associate rebecca@wirfs-brock.com

The ouroboros is an image of a serpent shaped into a circle, clinging & to or devouring its own tail in an endless cycle of self-destruction, self-creation, and self-renewal. Becoming a good software designer sometimes feels like that. How can we get better? By becoming more aware of our design heuristics and continuing to cultivate and refine them. Heuristics aid in design, guide our use of other heuristics, and even determine our attitude and behavior. For example, as agile software designers we value frequent feedback and decomposing larger design problems into smaller, more manageable chunks that we design and test as we go. We each have our own set of heuristics that we have acquired through reading, practice, and experience. This talk introduces simple ways to record design heuristics and how to share them with others. You can grow as a designer by examining and reflecting on the decisions you make and their impacts, becoming more aware of seemingly minor decisions that were more important than you thought, and putting your own spin on the advice of experts. While we may read others' design advice—be it patterns or stack overflow replies, the heuristics we've personally discovered on our own design journey may be even more important.

# Sustainable Development with Agile: "Keeping Your Architecture Clean"

Joseph W. Yoder

The Refactory Inc. joe@joeyoder.com

Being Agile, with its attention to extensive testing, frequent integration, and focusing on important product features, has proven invaluable to many software teams. When building complex systems, it can be all too easy to primarily focus on features and overlook software qualities, specifically those related to the architecture and dealing with technical debt. Some believe that by simply following Agile practices—starting as fast as possible, keeping code clean, and having lots of tests—a good clean architecture will magically emerge. While an architecture will emerge, if there is not enough attention paid to it and the code, technical debt and design problems will creep in until it becomes muddy, making it hard to deliver new features quickly and reliably. It is essential to have a sustainable architecture that can evolve through the project lifecycle. Sustainable architecture requires ongoing attention, especially when there are evolving priorities, a lot of technical risk, and many dependencies. This session will discuss elements of sustainable development specifically for dealing with technical debt. The discussion will include: choices of which problems need to be solved (upstream, how to define stories, priorities, etc); - how this development is done (downstream); - how to observe the necessary bugs and improvements in the team's backlog.

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