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Michael Felderer · Daniel Méndez Fernández
Burak Turhan · Marcos Kalinowski
Federica Sarro · Dietmar Winkler (Eds.)

Product-Focused
Software Process Improvement

18th International Conference, PROFES 2017
Innsbruck, Austria, November 29 – December 1, 2017
Proceedings

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Editors
Michael Felderer
University of Innsbruck
Innsbruck
Austria

Daniel Méndez Fernández
Technical University Munich
Garching
Germany

Burak Turhan
Brunel University London
Uxbridge
UK

Marcos Kalinowski
Pontifical Catholic University of Rio de
Rio de Janeiro
Brazil

Federica Sarro
University College London
London
UK

Dietmar Winkler
Vienna University of Technology
Vienna
Austria

Preface

The 18th International Conference on Product-Focused Software Process Improvement (PROFES 2017) brought together software researchers and industrial practitioners to Innsbruck in Austria, from November 29 to December 1, 2017. The hosting institution was the University of Innsbruck (UIBK) in Austria. In the spirit of the PROFES conference series, PROFES 2017 provided a premier forum for practitioners, researchers, and educators to present and discuss experiences, ideas, innovations, as well as concerns related to professional software process improvement motivated by product and service quality needs.

PROFES 2017 established an international committee of well-known experts in software quality and process improvement to peer review the scientific submissions. This year, we received 72 submissions of which 17 were selected as full papers and ten as short papers. The scientific contributions were strictly scrutinized by members of our international Program Committee. Scientific papers in the PROFES conference received three reviews each and passed through an additional quality assurance via a fourth meta-review.

As a novelty for conferences in our field, we have committed ourselves to making the first steps in establishing an open science policy for all accepted papers. This way, we support increasing the accessibility, reproducibility, and replicability of the research outcomes in PROFES. The steering principle is that all research output should be accessible to the public and that empirical studies should be reproducible. This open science initiative encompassed two key aspects: open access, and open data and open source. The first was achieved by supporting authors of accepted papers in making their preprint copies available to the public. The latter concerned papers that relied on empirical data. In such cases, we asked the authors to – and supported them in doing so – disclose the anonymized and curated data within the limits of existing non-disclosure agreements to increase the reproducibility and the replicability of their studies. To support the authors in such, often complicated, endeavors – sharing data comes with great effort and often with legal concerns and questions – we have established an open science chair to support the authors. Given that the open science initiative was newly introduced to our community, the conformance to the policy was not a mandatory prerequisite for paper acceptance, but overall the initiative was very well perceived and can serve as a model for other (empirical) software engineering conferences.

A further observation from this year's PROFES conference is that certain topics seem to manifest themselves as constantly relevant in the community, reflecting also the needs of the industrial community. This became evident in discussions and pre-sentations, workshops, and tutorials. The topics included (1) software process models in general and agile software development in particular, (2) quality and quality assurance, (3) human factors and user-centric engineering, and (4) data analytics topics. Besides the open space events, there were three workshops and four tutorials given in

these areas, many by researchers from industry or industry-close institutions. The tutorials in particular attracted additional participants from local industry and fostered discussion and knowledge exchange between industry and academia.

The keynote talks this year were once again of high quality. Marcus Ciolkowski is a principal IT consultant at QAWare in Munich, Germany, and has an excellent reputation in the field of software quality management and empirical software engineering. Barbara Weber is full professor at the Technical University of Denmark. Moreover, she holds an associate professor position at the University of Innsbruck (Austria), where she leads the research cluster on business processes and workflows. Her research is on, inter alia, human and cognitive aspects of software and information systems engineering.

We are thankful for having had the opportunity to organize PROFES 2017 in Innsbruck. The Program Committee members and additional reviewers provided excellent support in reviewing the papers. We are also grateful to all speakers, authors, and session chairs for their time and effort that made PROFES 2017 a success. We are especially thankful to our sponsors, the Economic Chamber of Tyrol, the Province of the Tyrol, and the University of Innsbruck. We would also like to thank the PROFES Steering Committee members for the guidance and support in the organization process.

Finally, we would like to thank everyone in the organization team as well as the UIBK's student and staff volunteers for making PROFES 2017 an experience that will live in the memory of the participants for years to come.

November/December 2017

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Michael Felderer
Daniel Méndez Fernández
Burak Turhan
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