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Josep Carmona · Gregor Engels
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Business Process Management

15th International Conference, BPM 2017
Barcelona, Spain, September 10–15, 2017
Proceedings

Editors

Josep Carmona 
Department of Computer Science
Universitat Politècnica de Catalunya
Barcelona
Spain

Akhil Kumar 
Department of Supply Chain
and Information Systems
Pennsylvania State University
University Park, PA
USA

Gregor Engels
Department of Computer Science
University of Paderborn
Paderborn
Germany

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Preface

We are pleased to present to you the proceedings of the 15th edition of BPM, which was held in Barcelona during September 10–15, 2017. That this conference is in its 15th year is a clear sign of the maturity of the business process management (BPM) area. During this time the conference has clearly established itself as the most important academic event in BPM. It is the premium forum for researchers, practitioners, and developers in this area.

The Program Committee (PC) comprised 21 senior PC members and 103 regular PC members. We received 116 full paper submissions. Out of all submissions, 19 papers were accepted or conditionally accepted, with an acceptance rate of 16%. This conference has very rigorous reviewing criteria. Each paper is reviewed by a team comprising a senior PC and four regular PC members who engage in a discussion phase after the initial reviews are prepared. The authors receive four review reports, and a meta-review that summarizes the reviews and the discussion. In the end, a conference program is only as good as the PC members. The program chairs are, for the most part, coordinators of the review process and messengers who relay the recommendations of the review team to the authors. We were very fortunate to have an excellent set of PC members who were very diligent and conscientious. We cannot thank them enough for their support and cooperation. The review process was conducted entirely on the EasyChair conference management system that was an invaluable resource for us.

There were six main sessions into which the papers were organized, spanning process modeling, process mining or discovery, process knowledge, and decisions and understanding. There were also papers that relate to the novel Blockchain paradigm and business process as a service. The conference program was enriched by talks from three distinguished keynote speakers: Alan Brown (University of Surrey), Miguel Valdés (Bonitasoft) and Mathias Weske (HPI Potsdam); along with panel and tutorial sessions. In conjunction with the main program of BPM, there was an industry track and a BPM Forum, a sub-track of the conference to host innovative research which has potential to stimulate discussions. The papers included in the industry track and the forum for presentation at the BPM Conference will be published in a separate volume.

We are grateful for the generous support of our sponsors: Signavio, Celonis, IBM, Diputacio de Tarragona, MyInvenio, DCR, Bizagi, CA Technologies, Mysphera and Springer. We very much hope you will enjoy reading the research papers in this volume.

September 2017

Josep Carmona
Gregor Engels
Akhil Kumar

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BPM 2017 was organized by the Universitat Politècnica de Catalunya, and took place in Barcelona, Spain.

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Keynotes

A Leaders Guide to Understanding New Business Models in the Digital Economy

Alan W. Brown

Surrey Centre for the Digital Economy, University of Surrey, Guildford, UK
alan.w.brown@surrey.ac.uk

Many organizations have been preoccupied in recent years with their repeated efforts to upgrade to digital technologies, digital media, and digital delivery channels. However, digital transformation has also opened the opportunity for organizations to question major assumptions about their business model – the users being served, the experiences offered to them, and the most efficient ways to deliver those experiences in a coordinated, consistent and cost-effective way. Consequently, real world thinking and experiences in business model innovation have changed significantly over the past few years. How can business model innovation keep pace with changing business needs? This session explores business model innovation in digital transformation and presents a range of simple frameworks and models that can be used to help explain core concepts of business model innovation, and techniques that help accelerate business model experimentation

Intelligent Continuous Improvement, When BPM Meets AI

Miguel Valdés

Bonitasoft

miguel.valdes@bonitasoft.com

Artificial Intelligence (AI) technologies are evolving faster than ever thanks to the maturity of cloud computing, BigData and the accessibility of predictive and machine learning algorithms and frameworks. But, is BPM software ready to embrace AI? Through continued modernisation BPM platforms goes beyond traditional process automation and optimisation use cases to play a key role in digital transformation in organisations of all sizes. Modern BPM applications requirements include advanced end user interfaces (UIs), access to big volumes of business data and real time updates of those processes, UIs and data. AI will be the next major wave of innovation in BPM. In this session we will discuss the challenges and opportunities involved in the shift towards the use of AI technologies in BPM. We will particularly cover uses cases in which AI enables intelligent continuous improvement of business processes and BPM applications. We will also discuss about pros and cons of different AI technologies when it relates to BPM.

BPM: Reflections on a Broad Discipline

Mathias Weske

University of Potsdam, Germany
weske@hpi.de

BPM is a broad discipline. Topics addressed in business process management range from formal methods in computer science to behavioral science methods in management. These distant points in the spectrum are linked by information systems engineering methods. Computer science, information systems engineering, and management share business processes as a common interest, as a joint research area. There are few disciplines that share this breadth. Under a BPM umbrella, not only different research topics are addressed, but also different research methods are employed that ask for different evaluation criteria.

In this talk, the breadth of the BPM discipline is illustrated by highlighting research results from its sub-fields and discussing their respective research objectives. In the second part of the talk, the implications of these observations on the BPM conference are discussed. The goal of our conference series has always been to provide a forum for all aspects of BPM research. Despite this claim the center of gravity has been initially in formal aspects of business process models and, more recently, in business process intelligence. While these research areas will continue to be cornerstones of our conference, an important area of business process management is not well represented: management aspects that focus on the interplay between process technology, persons, and organizations. These topics clearly deserve more attention in a conference on business process – management.

To further develop the conference and to match in the conference structure the breadth of the field, the Steering Committee proposes a novel structure of BPM conferences. This structure is based on different tracks, each of which has a track chair, a dedicated program committee, and specific evaluation criteria.

By this new structure we hope to broaden the BPM community and, ultimately, to be a forum for all aspects of the broad business process management discipline.

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