

Barbara E. Hedderich, Michael S.J. Walter,  
Patrick M. Gröner (Eds.)

# Business Meets Technology

Proceedings of the 1<sup>st</sup> International Conference  
of the University of Applied Sciences Ansbach  
25<sup>th</sup> to 27<sup>th</sup> January 2018



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## Introduction

"Und jedem Anfang wohnt ein Zauber inne" (in all beginnings dwells a magic force) as the German poet Hermann Hesse tells us. Thus we were looking forward to our first international academic conference here in Ansbach, where we could meet, discuss and learn with and from all our partners and friends who started with us our journey into developing even more our applied research and starting our doctoral program. In this context special thanks go to our longstanding partners from Valencia but also our colleague Frank Schwab from the neighboring University of Würzburg and all our colleagues at home who organized several workshops. Without them all our endeavors would not have been as fertile as they were. Obviously, such an event needs a certain infrastructure and funding and thus we gratefully thank our president Ute Ambrosius, our vice-presidents and deans for their unfailing assistance.

With all that team effort you have in your hands the first proceedings ever published at our university and we hope they give you a first glimpse into the diversity and scope of our conference. The papers were grouped into thematic workshops and the proceedings follow the chronological order of the conference.

In **Media Psychology** a general overview of the characteristics of young people's media usage is given by Frank Schwab trying to separate anecdotal myths from researched facts. Patrick Gröner presents his results to an experiment looking at the impact television series aimed at entertaining the public can have on the perception of political parties. Political parties are seen as brands and their placement in entertainment contexts offers opportunities and challenges for all parties concerned. Isabelle Menne introduces first insights from experiments looking at the reactions of humans to robots able to express emotions, work that is obviously necessary once robots leave the industrial context and find their place in human homes. Maximilian von Andrian-Werburg and Frank Schwab answer some questions about the connection between different forms of publicity and the general rise in pornographic content in the media. The workshop was rounded off by some insights of a former student of Multimedia and Communication, Julian Vogels together with Cornelius Pöpel, into the process of founding a global start-up selling metronomes.

Current **Advances in Engineering Research** are in scope of the second workshop. The considered challenges span a broad range in several fields of engineering and technology - lasting from the current

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trend on sustainable engineering to in-depth challenges in numerical simulations. With their detailed view on numerical simulations of diffuser flow regions in a rectangular to circular transition duct, Konstantin Zacharias and Wolfgang Schlüter illustrate the benefits of modern computer simulation techniques. Furthermore, David Wagner proves the applicability of those simulations for the determination of operating limits for biogas plants, while Jakob Krieg investigates how Smart Data can be introduced in medium-sized aluminum melting and die-casting industries. With a strong focus on sustainability in engineering, three presentations were given considering energetically and environmentally relevant topics, such as the use of different lubricant oils in combined heat and power units (by Mirko Gröper, Roman Petsch and Jörg Kapischke) and the arising challenges in developing a method to produce a wood-polymer-composite foam from waste wood and waste polystyrene foam by Stefanie Wiese, Kay Komynarski and Hans-Achim Reimann.

The proceedings of the workshop on **Entrepreneurship** start with some analysis on the situation of startups in Valencia using the GEM data to filter out the barriers to founding firms successfully firms in the region. Rosario Perello Marin, Gabriela Ribes Giner, Ismael Moya Clemente and Roberto Cervelló Royo highlight especially the need for transparency and the availability of relevant information concerning governmental programs to foster entrepreneurial activity. Linked to this area Sabine Sachs, Barbara Hedderich, Rosario Perello Marin and Gabriela Ribes Giner give a first literature review concerning factors of success and failure for women entrepreneurs with the long-term goal of comparing the German and Spanish case. Nicole Osbelt gives also a preliminary introduction into the question how SMEs can and should react to their aging workforce. Daniel Catalá Perez and María de-Miguel-Molina close the session of presenting literature reviews for upcoming bigger research projects by presenting their findings concerning the instrument of private-public-partnerships for boosting innovation. Again a comparison between Spain and Germany is aimed for. Joaquín Sánchez-Planelles and Marival Segarra-Oña look into the necessity of developing new business models to take the growing environmental awareness of the different stakeholders into account.

The section **Languages meet Business and Technology** focuses on communication about and within the field of technology and business and takes into account language learning and teaching at tertiary level in Germany and addresses the issues of digitization and innovation in this and other contexts. With Spanish still being a highly popular selective course at German universities, María Mahúgo and Christian Gebhard take

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into account how learners at these institutions study this language. They present results of an investigation into language learners' strategies and analyze the frequency of strategies identified in previous studies. Thereby they come up with questions about the interrelatedness of variables and aim to improve foreign language teaching strategies for adults. Verena Gerner takes a look at the digitization process taking place in society and discusses its reverberance in institutions and companies. She investigates into trainings aimed for developing digital skills among educational staff and discusses definitions of digital competences. In her preliminary article, she outlines the methodological approach of her empirical investigation into the professional training of educational staff and announces tentative ideas about its systematic improvement. Yet another topic related to communicating ideas and developing them is innovation, and Marival Segarra-Oña presents with her colleague Conrado Carrascosa-Lopez models of innovative behavior. They describe an empirical investigation into students' self-evaluation and peer-evaluation of innovation competence and also comment on the difference between the two. Presenting the results of a survey among students of Innovation Management, they discuss the importance of different aspects that define an innovative character and how they interact in their study. Finally, Christian Gebhard returns to the issue of language learning and teaching and analyzes frequent errors in foreign language acquisition of young German adults. He presents results of investigations into written final exams of Chinese and Spanish language instructions and finds both differences and similarities that may, in part, be explained by the structural differences between these two truly different languages. An outlook for the improvement of foreign language teaching depending on an investigation into the individual acquisition process is given as well.

In the workshop **Management and Technology** Julia Schrandt gives a literary review concerning SMEs and digitalization as a basis for asking questions referring to the preparedness of those firms confronted with the challenges of Industry 4.0. Michael Möhring and Barbara Keller use a scenario method to help firms evaluate possible public cloud solutions for their analytical CRM. Blanca de-Miguel-Molina, María de-Miguel-Molina, Marival Segarra-Oña and Virginia Santamarina-Campos give interesting insights into how the use of management tools like business model canvas and design thinking can help to structure projects presented for funding to the EU, thus making the process more efficient and helping to establish transparency in interdisciplinary groups. Veselin Stanev presents some first remarks about the influence of regulations on the European Banking System. Another influence of regulation is ex-

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plained by Astrid von Blumenthal and Anja Bartsch, when they give an overview on how to avoid liability in the area of Technical Compliance in the regulatory frame of German law. In a completely different area Ana Almerich-Chulia and Jessica Moreno-Puchalt show how with the help of new non-invasive measuring tools combined with virtual modelling conclusions about the stability and flexibility of old buildings can be reached. A comparison between two Gothic churches, one in Valencia and one in Ansbach is the first goal of this project.

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Ansbach, January 2018

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