Preface

The formation of new ventures plays a decisive role in the social and economic development of the world and is often based on technological innovations. This is by and large due to the fact that with each new venture created, a market participant comes into existence, which potentially stimulates the competition and drives the economic vitality further. Over the last decades, information and communication technologies (ICT) in particular were associated with numerous entrepreneurial opportunities. Many of the world’s most reputed companies such as Microsoft, IBM, or SAP have benefited from this development and significantly shaped how business is done today. In recent times, those particular information and communication technologies that are related to digital networks such as the Internet have enabled numerous start-ups to exploit innovative entrepreneurial opportunities. Business models making use of information and communication technologies allowing for the execution of interactive, inter-business processes are usually labeled as electronic business or e-business. Until now, two significant waves of such ICT ventures could be witnessed: Well-known winners of the dot-com boom that ended around the year 2000 were companies like Amazon, eBay, or Google; the subsequent Web 2.0 excitement gave rise to, for instance, start-ups such as YouTube, Facebook, or Flickr, all of them established after the year 2003. Even if the long-term success of some of these ICT ventures is still uncertain, there is without a doubt one lesson to be learned from these events: The ongoing rapid technological development within the electronic business environment still makes even more innovative business models possible and will continue to do so in the future. Since young companies are especially likely to implement such business models based on digital networks, electronic entrepreneurship (or e-entrepreneurship) has emerged as a central theme within the academic discourse. E-entrepreneurship addresses the theoretical interface of electronic business and entrepreneurship research and is defined as (based on Kollmann 2006: 333)

“[...] establishing new companies with innovative business ideas within the e-business environment, which, using an electronic platform in data networks, offer their products and/or services based upon a primarily electronic creation of value. This value proposition becomes only possible through the intelligent utilization of information technology.”

The present edited volume, E-Entrepreneurship and ICT ventures: Strategy, Organization and Technology, provides a unique and much needed overview of the current state of conceptual and empirical research at the interface of e-business and entrepreneurship research. Because of its exclusive focus on this interface, two largely separate streams in the academic literature are merged, which closes an important gap in current research. The papers collected in this volume are therefore essential reading material for students, academics, practitioners (managers and entrepreneurs), and political decision mak-
ers interested in applying and fostering e-business concepts in an entrepreneurial environment. Over the years, at the E-Business and E-Entrepreneurship Research Group at the University of Duisburg-Essen, Germany, we came to the conclusion that especially three aspects are essential to understand and manage young e-businesses or ICT ventures, namely their strategy, their organization, and their technology. Consequently, this edited volume is divided into three corresponding sections collecting the experiences, ideas, and results of the work of many international experts on this topic. Section 1, Strategy, discusses various issues related to general strategic questions such as an ICT venture’s positioning, its internationalization strategy, its innovation approach, or the effects of market orientation. Section 2, Organization, focuses primarily on human relations, methods of collaboration, and communication. Last, Section 3, Technology, presents the state-of-the-art of selected technologies that enable e-business activities and provides an outlook on future developments such as the long awaited semantic web or Web 3.0. In the following paragraphs, we briefly introduce the main contribution of each chapter of E-Entrepreneurship and ICT ventures: Strategy, Organization and Technology.

Section 1, Strategy, consists of seven chapters. Chapter 1, “An Integrated Business Model Innovation Approach: It is Not all about Product and Process Innovation,” by Roman Boutellier, Markus Eurich and Patricia Hurschler, Swiss Federal Institute of Technology (ETH) Zurich (Switzerland), addresses business model innovation as an addendum to Abernathy’s and Utterback’s dynamic model of process and product innovation. Their integrated business model innovation approach proposes a framework for long-term differentiation and competitive advantages. They use different examples, in particular ICT-ventures, to clarify the effect of integrated business model innovation. Chapter 2, “Internationalization Strategy in New E-Ventures: Towards a General Model and New Research Agenda,” by María Gracia García-Soto and Antonia Mercedes García-Cabrera, University of Las Palmas de Gran Canaria, (Spain), highlights the fact that research in the fields of internationalization and entrepreneurship appears to overlook the internal and external context in which the international strategies are conceived and aims at filling that gap by answering two questions. First, the authors ask what it is about e-ventures allowing them to compete globally? The second questions focuses on what it is about e-venturing making it a specific mix of strategy shaping processes necessary to formulate a born global strategy? Chapter 3, “Market Orientation in Emerging Firms: Towards a More Rigorous Understanding of Entrepreneurial Marketing,” by Malte Brettel, Andreas Engelen, Florian Heinemann, RWTH University of Aachen (Germany) and Andreas Kessell, GFIU mbH / Antikörper-online.de (Germany), focuses on entrepreneurial marketing. Applying rigorous procedures in the development of the measurement instrument and using a unique sample of 141 young companies, the authors confirm that market orientation does have a significant and positive effect on the performance of emerging firms. However, results indicate significant differences to established firms. They conclude that founders of emerging firms should pursue an individual way of market-oriented behavior that seems most appropriate when considering the company-specific liabilities. Chapter 4, “Crossing Borders: Overcoming Political Barriers to Technology-Led Economic Development,” by Nicholas Maynard, RAND Corporation (USA), Aaron McKethan, Brookings Institute (USA), Michael I. Luger, University of Manchester (UK) and Alekhya Uppalapati, The University of North Carolina at Chapel Hill (USA), argues that political boundaries that transect otherwise integrated economic regions often impede economic development coordination and cooperation in general, and for technology access, workforce training, and business innovation in particular. Case study evidence from several successful cross-border efforts in the United States and internationally demonstrates the critical
success factors required to overcome political boundaries and initiate technology-based development. Chapter 5, “Legitimizing Innovative Ventures Strategically: The Case of Europe’s First Online Pharmacy” by Andreas Kuckertz and Karsten Jörn Schröder, University of Duisburg-Essen (Germany), focuses on the central question how radically innovative ICT ventures can build organizational legitimacy, which is essential to acquire other key resources. Based on an in depth case analysis of an extreme case, they illustrate how ICT ventures can manage their various stakeholder groups strategically. Moreover, they develop a number of novel strategies that entrepreneurs can employ to legitimate their innovative business model. Chapter 6, “Internet Portals in Rural Areas: An Investigation of their Provision in Rural Scotland,” by Laura Galloway, Heriot-Watt University (Scotland), David Deakins, Massey University (New Zealand) and John Sanders, Heriot-Watt University (Scotland), investigates the ownership structure, operating characteristics and sustainability of six rural internet portals located in Scotland. Based on in-depth interviews, the authors discover that two distinct forms of ownership structure exist. Despite differences, both forms of ownership structure struggled to achieve commercial viability. Chapter 7, “E-Social Entrepreneurship and Social Innovation: The Case of On-Line Giving Markets,” by Alfonso Carlos Morales Gutiérrez and J. Antonio Ariza Montes, Universidad de Córdoba (Spain), describes organizational features of a particular kind of social enterprises that have emerged since the development of Web 2.0: peer to peer charities and e-social banking. Moreover, the authors explain how the philosophy of Web 2.0 offers new opportunities for the development and growth of social enterprises and detail their main features. They finally offer some reflections on main dilemmas and challenges that could be faced in a short term future.

Section 2, Organization, consists of seven chapters. Chapter 8, “Enlisting Online Communicators in Web 2.0,” by Gianfranco Walsh, Simon Brach, University of Koblenz-Landau (Germany) and Vincent-Wayne Mitchell, City University (UK), focuses on e-Mavens, which are recognized as a consumer type engaging in on-line communication. Using a sample of more than 2,500 consumers, the authors profile e-Mavens using demographic and psychographic characteristics as well as explore their motives for visiting music web sites. In addition, changes in e-Mavens’ music-related consumption behavior are investigated. Moreover, using cluster analysis, they develop a typology of e-Mavens. Chapter 9, “The role of Creativity (and Creative Behaviour) in Identifying Entrepreneurs,” by Debbie Richards, Peter Busch and Ayse Bilgin, Macquarie University (Australia), aims at identifying those individuals with the potential to become entrepreneurs. The authors focus on scenarios within the field of information and communication technology. Their results indicate that innovators may present multiple personality styles, which offer strengths to entrepreneurial activities. Chapter 10, “Education and Training for the Entrepreneurial Employee: Value of ICT-Enabled Learning,” by Cecilia Hegarty, University of Ulster (Northern Ireland), explores entrepreneurship education through the lens of ICT-enabled learning within university education. In this case study presented, learners extol the benefits of ICT-enabled learning on their entrepreneurship module. There are a number of implications for employers and educationalists. Moreover, the value of entrepreneurship education via ICT-enabled learning is discussed. For the entrepreneurial firm, recommendations are given about providing training in entrepreneurship for employees. Chapter 11, “Open Scientific Entrepreneurship: How the Open Source Paradigm can Foster Entrepreneurial Activities in Scientific Institutions,” by Harald von Kortzfleisch, Mario Schaarschmidt and Philipp Magin, University of Koblenz-Landau (Germany), conceptually transfers the concept of open source software (OSS) development to scientific entrepreneurship and hypothetically discusses the support potentials of this rather new development philosophy for what the authors call open scientific
entrepreneurship. The main thrust of the chapter presents open scientific entrepreneurship from two points of origin: OSS development as a specific form of scientific e-entrepreneurship and further on potential benefits of opening ‘traditional’ scientific entrepreneurship up by looking at specific action fields. The general benefits as well as downsides of the concept of openness are discussed on a generic level. Chapter 12, “Open Source: Collaborative Innovation,” by Avi Messica, The College of Management (Israel), reviews the current status of Open Source (OS) and provides new insights into the prerequisites of the OS process as well as the profile of OS contributors. Moreover, the author extends the scope of possible business models such to augment those that exist or were already discussed in the past. While the term OS was coined in the context of software development and redistribution, the author presents and discusses the concept of OS to include any Open Collaborative Innovation in both software and hardware. Chapter 13, “Enterprise Resource Planning: An E-Entrepreneurial Challenge,” by J. Doug Thomson, RMIT University, Melbourne (Australia), addresses the Enterprise Resource Planning (ERP) entrepreneurial venture challenge for developing an ERP database using standard generic database software within existing resources and available data at lowest cost in minimum time for the Australian Department of Defence. He shows that the anticipation of the developers of the ERP database was that this entrepreneurial venture could not only help the Australian Department of Defence to become an inclusive knowledge based learning society, but to subsequently provide an inexpensive database model for other organizations, large or small. Chapter 14, “Delivery in the Net Economy,” by Anthony Scime, Purdue University (USA) and Anthony C. Scime, State University of New York (USA), examines the pursuit of e-entrepreneurial ventures by existing businesses with specific attention to the architecture of Web portals and to the delivery mechanisms of products. Additionally, outlined are features and facets of Web portals necessary to sell and deliver mark-up based and production based products and services in the B2C sector of the Net Economy.

Finally, Section 3, Technology, consists of four chapters. Chapter 15, “Web 1.0, Web 2.0 and Web 3.0: Revealing New Vistas for E-Business Founders,” by Tobias Kollmann, University of Duisburg-Essen (Germany) and Carina Lomberg, Ecole Polytechnique Fédérale de Lausanne (Switzerland), addresses the distinction between different generations of the web. The authors argue that whereas the distinction between Web 1.0 and Web 2.0 became widely accepted in both literature and practice, we are merely at the beginning of the possibilities arising from current trends culminating in our information society. The authors aim at clarifying this overall development with the objective of giving impulses for the 3rd generation of e-business. For this purpose, the characteristics of each generation (Web 1.0, Web 2.0, and Web 3.0) are highlighted. Chapter 16 “OpenSocial: Structured Partnerships in the Context of Social Networking Platforms,” by Matthias Häsel, XING (Germany), argues that by entering structured partnerships, e-ventures and social networks can gain a sustainable competitive advantage by integrating their highly complementary resources and capabilities. Building on the Resource-based View (RBV) of the firm and the concept of core competencies, the author shows that both partners can significantly benefit from the technology-induced possibilities that arise from the OpenSocial standard. Chapter 17, “Enabling Technologies in an Ambient Intelligence (AmI) System,” by Simrn Kaur Gill and Kathryn Cormican, National University of Ireland (Ireland), introduces the concept of Ambient Intelligence (AmI) with regard to the enabling technologies and how they are combined to assist e-entrepreneurs. The aim of the authors is to provide a better understanding of the AmI process and knowledge of the AmI system and tools. To this end, three of the enabling technologies are discussed, semantic web, multi-modal services, and radio frequency identification tags. These technologies are then examined within the AmI reference
model. Chapter 18, “Creating Value through Entrepreneurship: The Case of Artificial Intelligent Agents,” by Andrea Bikfalvi, Universitat de Girona (Spain), Christian Serarols Tarrés, Universitat Autònoma de Barcelona (Spain) and Josep Lluís de la Rosa Esteva, Universitat de Girona (Spain), provides a case study analyzing the creation and development process of ARTIFICIAL INTELLIGENT AGENTS, S.L. (AIA), a company spin-off from the University of Girona (Spain). It describes all phases, from concept to implementation, as well as the problems and challenges, faced by the entrepreneurial team composed of academics and professionals. Furthermore, it lays out the path from developing a technology in the field of human automation attempting to sell a user-friendly technology that would help customer intelligence and management.

Taken together, the chapters of E-Entrepreneurship and ICT ventures: Strategy, Organization and Technology contribute to an enhanced understanding of the important interface of e-business and entrepreneurship by bringing together leading academics and practitioners worldwide.

Tobias Kollmann
Andreas Kuckertz
Christoph Stöckmann
University of Duisburg-Essen, Germany

REFERENCES