

## Editorial 22/4

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Dear readers of Electronic Markets,  
In 1971 NASDAQ was founded as the world's first electronic stock market and together with the computer reservation system Apollo (by United Airlines) it became one of the earliest examples of electronic markets. Many other electronic markets followed in these industries as well as in others, such as retailing, energy, electronics or chemicals. Multi-vendor catalogs or order books contributed to market transparency, formalized matching procedures improved allocation results and integrated settlement mechanisms increased the efficiency of executing transactions. Compared to industries involving physical products with multiple characterizing attributes, the highly structured and information-based nature of financial products explains why electronic markets gained momentum in this industry. Today, electronic exchanges, trading and clearing systems have become a competitive necessity for all financial institutions worldwide.

At the same time the increasing dependency on these systems is reflected in unintended effects, such as exceeded market development and repeated market crashes. Electronic agents that substituted brokers on the trading floor or in remote trading rooms, known as algorithmic trading, as well as the design of allocation mechanisms, for example the implementation of so-called circuit breakers

that suspend trading under predefined market conditions, are considered as important reasons. Remarkably, the discipline of engineering market mechanisms has received particular attention since two researchers who investigated the allocation efficiency of alternative market designs were rewarded the Nobel Prize in 2012. Their results extend the price mechanism to also include other non-monetary criteria, such as work performance or social criteria, with the goal of identifying suitable instruments that contain financial risk and sustain market stability. Mechanism design in electronic markets has become a primary concern for the domain of market engineering (e.g. Weinhardt et al. 2006). Due to the nature of its products, the financial industry regards this as an important application area.

Contrary to the evolution of electronic markets in the interbank area, electronic markets have enjoyed only little success in customer-facing processes. Based on insights from other industries, the Internet and mobile technologies have the potential to 'change the game' between traditional actors (see Spulber 2010). While research on aspects of mobile commerce were already included in a special issue 10 years ago (Rao 2002), the first paper to report on electronic financial services in Electronic Markets dates back 20 years (Krähenmann 1992). Together with the objective to strengthen industry-specific special issues, the present issue will focus on the banking industry. The five papers comprise a position paper as well as four research contributions and will be introduced in a comprehensive preface by our team of guest editors Roger W.H. Bons, Rainer Alt, Ho Geun Lee and Bruce Weber.

Two general research articles complete this issue. In the first paper titled "Virtual or vague? A literature review exposing conceptual differences in defining virtual organizations in IS research" the authors Kai Riemer and Nadine Vehring explore various notions of virtual organizations and define three types of virtual organizations: the internal

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virtual organization, the network virtual organization and the outsourcing virtual organization. The authors use this classification to analyze the changes in the organizational structures induced by the information technologies (IT) within the last 15 years. The second general article develops a model for measuring the degree of IT within value chains. In their study on “Determining chain digitization maturity: a survey among Dutch CIOs” Marijn G. A. Plomp, Ronald S. Batenburg and Ron C. M. van Rooij interviewed 33 executives to validate a model which distinguishes between technological and organizational aspects on the one hand and the supply and the demand side of organizations on the other. Based on their model, the authors conclude that the complexity of chain digitization solutions, the synchronization of data and the size of the organization strongly influence the maturity of IT-based value chains.

To follow-up this first industry-specific special issue, a call for papers in the energy sector was released. Titled “Smart Energy: Building Business Models, Best Practices, and Theories” submissions are due by March 1, 2013. In addition, another team of guest editors addresses the field of “Personal Data Markets” which receives increasing relevance in view of the growing volume of personal information of social media

and cloud services. Submissions to this CfP are invited by March 8, 2013. Finally, we would like to thank all authors, reviewers and editors for their effort involved in this issue. We hope you enjoy reading it.

Best regards from Leipzig and St. Gallen,

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