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## Foreword: Digital Adaptation, Disruption, and Survival

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# **Selected Papers of the Information Systems Research Seminar in Scandinavia (IRIS)**

IRIS41: Digital Adaptation, Disruption, and Survival  
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## **1 About Issue 9 (2018)**

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## 2 Foreword

We know that the disruption of digital technology transforms society and organizations at all levels. We are, however, less certain about how this transformation can be understood and how societies and organizations can adapt to and survive the comprehensive changes it implies. The aim of this issue is to look into what kind of technology is accelerating the disruptive transformation of society and organizations, and how business models, work practices and individual behavior are changing and being adapted to support new forms of economy.

This 9th issue of IRIS selected papers consists of 9 insightful papers that cross many layers of the digitalized society, from individual citizens and people to various organizations. The papers examine the integration of public sector services, new modes of project management, new roles and demands for new skills of workers, and organizational design and work practices. The selected papers consist of both literature reviews and empirical studies, qualitative as well as quantitative studies and mixed methods studies.

IRIS41 was hosted by Aarhus University, and was held in Odder, Denmark, August 5th-8th 2018. The 9 selected papers were nominated by the group leaders at IRIS41. The papers have all been subjected to a blind peer-review process and substantial group discussions during the conference. After selection they were revised and resubmitted for inclusion in this issue. Based on a total of 51 submissions to IRIS41, this issue has an acceptance rate of 18%.

### 2.1 Agility and performance in cross-organizational settings

Fast and high quality of performance of activities and processes become vital prerequisite for adaptation and survival of organizations in the new business landscape. As work and business settings are increasingly becoming more knowledge intensive, networked, and less bound to well-established organizational units, the development of more dynamic business strategies is motivated. With the aim to understand the demands of such transformation, in the first paper with the title “*Dynamic Capabilities in Information Systems Research - A Literature Review*”, authors Vartiainen and Hansen investigate the literature on organizations’ capability to handle dynamics. Drawing on a literature review on ‘dynamic capabilities’ and ‘Information systems (IS) strategy’, the authors suggest that research on dynamic capabilities within IS lacks clear definitions of the concept and it lacks a cross-organizational perspective.

Related to demands of dynamic capabilities is the capacity to handle and exploit complexity. In paper two with the title “*The role of the IT-Project Manager in Organizations that Balance Agile and Traditional Software Development*” Tjørnehøj investigates what are the requirements needed for successful project performance in complex Information technology (IT) projects. The author recognizes the need for a “post-agility” approach to IT projects in which both agile as well as traditional methods can meet. The paper emphasizes the importance of ‘project managers’ in

such approach, as they can serve as key persons and boundary spanners between different approaches and between the organization and the project. The author discusses how the role and the work of the IT project manager change in these new settings when work tasks imply being a translator and a mediator of collaboration between diverse actors. The paper recognizes how the management style needs to be dynamic, ranging from coaching to controlling and delegating, and it emphasizes the importance of having the skill to switch fluently between the different approaches.

A prerequisite for this kind of boundary spanning activities of professionals is a system or an “object” that can facilitate meetings, relations and collaborations. The theoretical concepts of ‘boundary objects’ (BO) and ‘coordination mechanisms’ (CM) have both successfully been used as lenses in the literature to understand such object and emerging collaborative activities. In paper three, Çarçani and Holone review the literature on BO and CM in the Computer Supported Collaborative Work (CSCW) research and find that the concepts are sometimes both used in the same piece of research without being conceptually distinguished. In the paper with the title *“Boundary Objects or Coordination Mechanisms? The case of cognitive rehabilitation”* the authors elaborate on what constitutes BO and CM and they outline important issues to consider when an “object” used between different actors or groups are conceptualized as either a BO or a CM.

When communication and collaboration are taking place beyond organizational boundaries, there is a challenge for organizations to preserve the customers’ experience of the organization as an integrated whole. An integrated organization is important both from an efficiency perspective as well as from a service quality perspective. In the fourth paper by Madsen and Christensen titled *“Integrated and seamless? Single Parents’ Experiences of Cross-Organizational Interaction”* challenges with cross organizational interaction is investigated from the perspective of individual citizens, when they use e-government services. Specifically, the paper focuses on citizens’ cross- and inter-organizational interaction during a benefit application process. The authors identify seven challenges the citizens face, that reduce the feeling of seamlessness and that break the experience of an integrated public sector.

Flexibility and high speed of change of digital goods and services demand for more value-based pricing practices. By studying five firms that develop and market some sort of digital goods and services, the 5th paper by Laatikainen and Ojala, titled *“Pricing of digital goods and services”* analyzes what resources and capabilities are needed for good pricing. The paper discusses how new ways of pricing are characterized as processes of trial and error, learning by doing and iterative work cycles. The pricing tends to be made more and more in teams of different experts and in more informal ways through simple activities, rather than through official and complex strategies. This new way of pricing, the authors argue, demand for new skills of the employees such as technological skills, market knowledge, analytical skills and negotiation skills. There is also a need to understand how to make use of available data from competitors and customers.

## 2.2 Strategies and Organizational Design

To manage and adjust to disruption organizations are increasingly relying on different types of data for decision making. Technologies, applications and processes used to make use of the data can be gathered under the term business intelligence (BI). In the 6th paper by Gaardboe and Svejvig, titled *“Better and more Efficient Treatment: The Individual and Organizational Impacts of Business Intelligence Use in Health Care Organizations”* the authors investigate individuals’ use of BI and the organizational impact of BI, in healthcare. The paper suggests that there are two categories of users of BI: ‘Information users’ and ‘System users’. The information users are suppliers of information and they do not experience BI as having high impact on their work, while system users utilize BI for decision making and they also experience a higher impact of BI on work. The paper suggests that existing IS success models need to take this into account and be expanded with more focus on task characteristics, e.g. task compatibility, task difficulty etc. The authors finally discuss three areas of organizational impact of BI in healthcare organizations: 1) hospital efficiency, e.g. bed-occupancy rates, days of hospitalization etc.; 2) healthcare quality, e.g. early identification of errors and problems in treatment and; 3) learning, e.g. prediction of patient pathway and consequently prevention of future risks.

Another application area in which fast and correct decision making is vital, is crisis management. In the 7th paper with the title *“Affordance for municipal crisis management”* Granholm and Borglund study affordances in municipal crisis management rooms by applying ethnographic methods. The paper aims to understand the work in situation rooms and to provide insights for the design of situation rooms. Affordances in municipal crisis management are argued to have organizational and material dimensions. Within the organizational dimension, aspects such as flexibility, scalability, knowledge about tools, as well as time and opportunity for exercise, are vital in order to enhance trust in crisis management. In terms of materiality, a structure and a back-up structure (e.g. when water and electricity is not available) is shown to be important as well as tools that are easy enough to use during a crisis and that are available over time in the situation room.

Enterprise Architecture (EA) is an organizing logic and a tool for aligning business and IT. In the era of technology disruption, the concept has been especially acknowledged as a means to cope with challenges of the fast transformation of business models, networks and relationships. However, definitions of the concept vary and there is a lack of common understanding of the concept among researchers. In search for conceptual strengthening, paper 8 titled *“Examining Enterprise Architecture Definitions – Implications from Theory and Practice”* by Nurmi, Penttinen and Seppänen, synthesizes results from a systematic literature review on EA and a set of cross-sectional practitioner interviews regarding EA in public and private sectors. The authors find that the concept is extending from its original IT-business alignment focus towards a holistic organizational design and development tool.

Technology disruption also affects consumers in their daily life and consumers’ behavior. Anthropomorphism is the skill to attribute human characteristics and features to non-human objects. In paper 9 titled *“Influence of anthropomorphism on consumer behavior”* Mazurova reviews literature on the influence of anthropomorphism on consumer behavior, and how positive and negative aspects of

consumer behaviors are interrelated. The paper discusses that even though humanized technology has showed to have positive influence on human technology interaction, too much humanization may risk reducing real human socialization, hence technology may replace humans. The paper further discusses how humanized technology tends to “distract” the consumers and shift focus away from quality of the products to humanized design features. In that way, the author claims that anthropomorphism can have both positive and negative influence on consumer behavior.

### **2.3 Conclusion**

In summary, the selected papers together contribute to the understanding of complexity, dynamic and collaboration across organizational boundaries when disruptive technology and humans’ desire for adaptation, improvement and survival blend. The papers make clear that IS and the IRIS community have a significant role here to continue the important work of digging deep into the challenges organizations face with the speed of transformation of economy affecting work, strategies, management and the performance of an increasingly more dynamic organizational unit. We are happy to have got the privilege to closely read and summarize all the interesting work of the IRIS41 selected papers 2018 and we wish all the authors good luck with future work.

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