Introduction to the Minitrack on Information Systems in the Regulatory Landscape

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1. Introduction

Advances in information systems (IS) continue to transform the economy and society at an unprecedented pace. While IS drive innovation, novel business models, and efficiency, they also introduce increasingly complex challenges that regulators struggle to address, ranging from cybersecurity and privacy to intellectual property rights, market dominance of digital platforms, and the ethical use of emerging technologies (Berente et al., 2021; Butler et al., 2023). With innovations such as artificial intelligence (AI), big data, and the Internet of Things considerably disrupting established regulatory processes and legal frameworks, exploring the dynamic interaction between IS and the regulatory landscape has become more necessary than ever.

Despite this rising importance, regulation remains an often-overlooked and largely unexplored topic in IS research (Butler et al., 2023; Clarke, 2022). The intricate interplay between IS artifacts and the ever-expanding body of regulatory obligations has revealed a significant knowledge gap within the IS field. This gap becomes especially apparent when examining how regulations shape the design and development of IS (Dickhaut et al., 2023), and conversely, how advances in IS prompt the creation or modification of regulations (Fast et al., 2023; Henningson and Eaton, 2023). A recent example of this dynamic can be seen in the European Union's AI Act, where the rapid rise of generative AI challenged the original risk-based approach, leading to extensive last-minute amendments to address emerging technological realities (Helberger and Diakopoulos, 2023).

While regulators grapple with the need to establish more agile regulatory processes and legal frameworks that can keep pace with IS advances, organizations must navigate an increasingly complex regulatory landscape that imposes stringent requirements on the design, implementation, and management of IS. In this regard, there is a growing need for a deeper understanding of the reciprocal relationship between IS and regulation. Addressing this knowledge gap is crucial, as it holds the key to ensuring that organizations can continue to drive innovation while adhering to the expanding regulatory landscape that governs the use of IS.

The aim of the minitrack on *Information Systems in the Regulatory Landscape* is to explore the evolving role of IS in shaping regulation and vice versa, addressing important questions about how laws adapt to advances in IS, how organizations can ensure compliance in an increasingly complex "jungle of regulations," and how regulators can strike the right balance between fostering innovation and managing potential risks. The minitrack aims to encourage researchers, regulators, and different practitioners (e.g., IS developers, lawyers) to engage in discussions about how IS both shapes and is shaped by regulatory developments. The minitrack covers a broad range of topics, including the reciprocal influence of IS and regulation, strategies and practices to ensure lawful IS, AI for compliance, the impact of regulations on organizations, comparative analyses of regulations and their IS implications, privacy challenges in distributed data processing, and the detrimental effects of laws.

2. Accepted Papers

While this is the first time we are organizing this minitrack, we attracted significant attention, reflecting the growing importance of the topic and resulting in eleven submissions. After a careful and rigorous review process, we accepted six high-quality papers. Below, we provide a summary of the accepted papers.

On the Role of Regulation in Information Systems Research: Literature Review and Research Agenda *(Authors: Antonia Wurzer, Jan vom Brocke)*

This study reviews the body of knowledge on regulation in IS research, identifying the regulation of and through IS as major research streams. It focuses on three key themes: the fragmented regulatory landscape, regulatory costs, and the impact of rapid technological change. The authors propose a research agenda for IS regulation and highlight areas for further exploration.

A Systematic Analysis of Data Protection Regulations *(Authors: Alexandra Klymenko, Stephen Meisenbacher, Ali Asaf Polat, Florian Matthes)*

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In this work, the authors performed a systematic analysis of 14 data protection regulations and identified a set of regulatory aspects for comparison. The paper presents an artifact with side-by-side comparisons of these aspects for all selected regulations, supporting scholars and practitioners in understanding the current data protection regulation landscape.

Consumer Health Data: Regulation, Governance, and Innovation *(Authors: Elizabeth Davidson, Jenifer Sunrise Winter)*

The paper reviews sources of consumer health data, presents data governance challenges in this context, and outlines corresponding regulatory approaches. On this basis, the authors highlight opportunities for research and pedagogy in the IS field.

Critically Comparing Global AI Regulations *(Authors: Eryclis Rodrigues Bezerra Silva, Zachary Kilhoffer, Sang Hoo Oh, Madelyn Rose Sanfilippo)*

The authors explore global AI governance through regulatory documents from 64 countries, the European Union, and the African Union. Using mixed methods, the paper identifies key trends, including regulatory capture by industry in the Americas, decolonial dissent in Africa, and rhetorical and substantive similarities across nations. The work gives policy recommendations and applies multi-modal governance concepts to AI.

Copyright and the Dynamics of Innovation in Artificial Intelligence *(Author: Christian Peukert)*

This study compares countries based on the breadth of exceptions in copyright law and finds that broader exceptions are associated with higher levels of AI innovation, including more research publications, open-source participation, patent filings, and AI ventures. The paper suggests that mandatory licensing could better align the incentives of rights holders and AI developers.

Can Generative AI even Climb the High Mountains? An Identification of Resistance Factors and Forms among Legal Practitioners *(Authors: Muhammad Akash Bin Nasir, Christian Matt)*

Grounded in Innovation Resistance Theory, this study explores the factors driving legal professionals' resistance to Generative AI (GenAI) through interviews with 16 practitioners. The findings highlight that risk and tradition barriers significantly influence resistance, manifesting in postponement, opposition, and rejection. The study introduces conditional resistance as a new form of resistance and offer implications for promoting GenAI adoption in the legal domain.

3. Conclusion

By integrating IS and legal perspectives, this minitrack offers valuable insights into the complex and dynamic intersection of IS and regulation. Along with its accepted papers, the minitrack provides implications and practical solutions for both academia and industry to navigate this intricate field. We argue that, due to its multidisciplinary nature and socio-technical perspective on digital phenomena, IS research is uniquely positioned to help both regulators and organizations identify and mitigate the harmful issues and risks posed by novel technologies to society. However, IS research must also recognize the importance and necessity of collaborating more closely with legal experts to effectively address the upcoming challenges of digitalization.

4. References

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