Introduction to the Minitrack "IT Governance and its Mechanisms" HICSS 56 (2023)

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In many organizations, information technology has become crucial in the support, sustainability and growth of their businesses. The pervasive use of technology has created a critical dependency on IT that calls for a specific focus on IT Governance (or Enterprise Governance of IT).

Enterprise Governance of IT (EGIT) is *"an integral part of enterprise governance exercised by the Board overseeing the definition and implementation of processes, structures and relational mechanism in the organization enabling both business and IT people to execute their responsibilities in support of business/IT alignment and the creation of business value from IT-enabled business investments."* [1, p. 3]

The minitrack "IT Governance and its Mechanisms" welcomes papers on theories, models and practices in the IT governance domain and aims to contribute to the understanding of IT governance and its structures, processes and relational mechanisms. The minitrack was first introduced at HICSS 35 in 2002. For its 22nd edition at HICSS 56, the following papers are included in the minitrack.

1. *"Cybersecurity Governance – An Adapted Practical Framework for Small Enterprises"*, by Petra Asprion, Patrick Gossner, and Bettina Schneider. In this paper, the authors develop and validate a 'cybersecurity governance framework' for small enterprises. The framework focuses on criteria that are essential for small businesses, such as simplicity of understanding and ease of use (both for non-experts). Six principles identified relevant build the common thread of the framework, which guides the main activities to be implemented: 'responsibility', 'strategy', 'cybersecurity threats and risks', 'development and change', 'conformance' and 'people, skills and competencies'.
2. *"Perennializing Information Technology Infrastructures: A Dynamic Capabilities Perspective"*, by Simon Bourdeau, Thibaut Coulon, Dragos Vieru, and Claudine Bonneau. This paper argues that managing the evolution and sustaining transformations of information technology infrastructures (ITI) can be very challenging. To cope with this sustainability challenge, organizations must develop specific dynamic capabilities to sustain ITI and their evolution under turbulent and changing business contexts. In response, the paper sheds light on twenty key organizational actions that were identified by twenty-nine ITI experts, and that were grouped into three interrelated vectors: (1) Watching and developing knowledge and know-how to sustain ITI; (2) Visioning and governing ITI; (3) Standardizing and adopting a flexible approach to ITI.
3. *"Digital security governance: what can we learn from high reliability organizations (HROs)?"*, by Stef Schinagl, Abbas

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Shahim, Svetlana Khapova, and Bart Van Den Hooff. The authors argue that many organizations fail to establish successful Digital Security Governance (DSG) practices and, consequently, fail to understand how DSG can lower the severity of cybersecurity failures. This paper aims to contribute to filling this gap. By putting the five principles of the High Reliability Organization (HRO) central to the design of our qualitative investigation, the authors engage in interviewing forty-two chief information security officers (CISOs) and chief information officers (CIOs) of large organizations in the Netherlands about their views on why organizations fail to successfully achieve DSG. The data show that HRO principles are partly relevant but lacking in DSG approaches, which potentially increases security failure.

4. *"A Domino Effect: Interdependencies among Different Types of Technical Debt"*, by Netta Mäki, Esko Penttinen, and Tapani Rinta-Kahila. The paper examines the accrual of technical debt, which represents an increasingly pressing concern for many organizations. To advance understanding of how this debt-accumulation process unfolds, an in-depth case study was conducted with a large manufacturing firm for identifying particular types of technical debt and potential interdependencies among them. The findings point to architecture debt being "the root of all evil" at the case company, setting in motion dynamics that led to the development of other types of technical debt.
5. *"Between The Rock and The Hard Place - Conflicts in Implementing Integration Platforms"*, by Sonja Hyrynsalmi and Kari Smolander. In this research, the authors study the experiences of professionals, who have gone through an integration platform adoption project in their company recently. In their analysis, the authors found out that the technical challenges of the companies were easier to solve. However, if the organization does not have clear management, strategy, or understanding of how to get the most from the new integration platforms, the capabilities of the integration platform are not used at their full scale. In the paper, the authors outline the intervention points for a successful integration project.
6. *"Adaptive Governance Model with a Sociotechnical Approach"*, by Jose Antonio Ortega, Óscar Pedreira, and Mario Piattini. Using an action-research approach with international Spanish organisations, the authors of this paper have developed a governance model based on Agile Portfolio Management. The paper shows that it is possible to use this approach to create an adaptive governance model, which allows to take on business transformation initiatives, regardless of their level of complexity. At the same time, the organisation is encouraged to embrace a new working mindset, one that is more organic, more transparent, and gives autonomy to staff.
7. *"Open Source Software Governance: A Case Study Evaluation of Supply Chain Management Best Practices"*, by Nikolay Harutyunyan and Dirk Riehle. This paper proposes a set of industry-inspired best practices for supply chain management organized into a handbook. To evaluate the handbook, the authors ran a one-year case study at a large enterprise software company. The authors assessed the initial situation of open source governance, the implementation of the proposed SCM best practices, and the resulting impact. The results of this study demonstrate and discuss the artifacts created while the case study company implemented the SCM-focused governance process.
8. *"IT investment and Firm Performance: The Role of Board Gender Diversity"*, by EunJu Jung and Yen-Yao Wang. This study investigates how gender diversity, the proportion of female board members in a firm, moderates the impact of IT investment on firm performance. The authors found a positive moderating effect of gender diversity on the effect of IT investment on firm performance.

References

[1] S. De Haes, W. Van Grembergen, A. Joshi, and T. Huygh, *Enterprise Governance of Information Technology: Achieving Alignment and Value in Digital Organizations, Third Edition*. Cham, Switzerland: Springer, 2020.