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How Do We Optimize Risk in Enterprise Architecture when Deploying Emerging Technologies?

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Abstract. Emerging Technologies which merge cyber-physical systems continue to transform businesses and digital agility in transformative ways. Importantly, most investigations around focus on either cyber risk or the risk around physical systems but it does not encompass both. However, the immediate challenge is new opportunities occurring with emerging technologies. Examples include automobiles, the Internet of Things (IoT), medical devices, and building controls. In this study we will focus identifying risk as an optimization not a minimization problem and how to develop a practical approach for executives and boards to use in the oversight of cyber physical systems. Based on interviews with executive leadership teams and boards of directors we explored the over-arching research question: How can we apply a risk-based approach to cyber-physical security and what questions should business leaders be asking? The research methodology used a survey instrument and multiple qualitative methods involving business leaders from 60 companies and 80 business leaders from September 2018 – September 2019. Based on this analysis, we developed an extended framework for executives, as well as questions and process for boards to consider as part of their oversight. The Extended Risk-Based Approach equips boards and executives as they begin to develop their thinking around enterprise cyber physical risk.

Keywords: Emerging Technologies, Cyber Security, Information Security, Cyber Physical Risk, Internet of Things (IoT)

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Video Advertising: Connection and differences between consumers?

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Abstract. The internet search trend has caused that online user are looking for more and more enriched information. The evolution of social media has been huge and users relate to social networks differently than they did before. Currently, there are more than 4 billion active users on social networks and brands are looking to showcase their products and services. Our research found the following factors that influence social media engagement: informativeness, self-connection and advertising stimulation. Through literature review, we propose a conceptual model that has been tested in the PLS-SEM. Data were collected from 237 consumers and our survey found that engagement in social media is explained by the variables identified by our model. Important contributions to brand theory and management will be found in this investigation.

Keywords: Social Media Engagement, Video Advertising, Self Brand Connection.

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Mobility Assistants to Support Multi-Modal Routes in Smart Cities: A Scoping Review

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Abstract. Objectives - This study aimed to identify: (i) the current research trends related to mobility assistants to support multi-modal routes in smart cities; (ii) the types of smart cities' data being used; (iii) the methods applied to assess the proposed solutions; and iv) the major barriers for their dissemination. Methods - An electronic search was conducted in several databases, combining relevant keywords. Then titles and abstracts were screened against inclusion and exclusion criteria. Finally, the full texts of the eligible articles were retrieved and screened for inclusion. Results - A total of 19 articles were included. These articles either propose algorithms to optimize routes planning or presenting specific applications that make use of a broad range of smart cities' data. Conclusion - The number of included articles is very reduced when compared with the total number of articles related to smart cities, which means that the mobility assistants to support multi-modal routes are still not significant within the smart cities' research. Moreover, most of the included articles report applications in an early stage of development, which is a major barrier for the respective dissemination.

Keywords: Smart cities, Smart mobility, Mobility assistants, Scoping review.

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Risk management in the healthcare safety management system

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Abstract. The paper discusses the main components of the modern system of risk management in medicine. Using the ISO 31000 standard of risk management and the ARIS integrated modeling environment, the authors have built a model of the risk management process in a medical organization, including the accounting subsystem, the risk analysis subsystem, and the risk processing subsystem. The concept of risk management proposed in the article is formulated on the basis of a system safety model, which assumes that adverse events related to the provision of medical care are based on systemic causes that under certain conditions turn into a hazard, and the latter is used to receive active threats and incidents. The risk management system is an executive block of the safety management system in a medical organization, which includes (in addition to risk management) an ideological block (a new safety culture) and an educational block (an organizational learning subsystem).

Keywords: health care security, risk management, latent threats, hazards, active threats, incidents.

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Integrating a New Generation of Interoperability Agents into the AIDA Platform

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Abstract. Health is an information rich and complex environment, which makes it essential to implement interoperability in different health organizations and the consequent homogeneity among Health Information Systems (HIS). The Agency for the Integration, Dissemination and Archiving of Medical and Clinical Information (AIDA) is a consistent agent monitoring platform capable of guaranteeing the automation of information as well as the interoperability and integration of HIS. This platform was designed as a solution to the information islands that are commonly found in hospital systems, and it is currently being used in several hospitals throughout Portugal. However, like any technological innovation, the solution requires a constant health technology assessment (HTA) to ensure the absence of obsolescence and a continued efficiency and security of the platform. Hence, this article focuses on the relevance and the need for vigilance, culminating in the restructuring of certain intelligent agents that make up the AIDA platform.

Keywords: Health Information Systems, Interoperability, Obsolescence, Health Technology Assessment.

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Aims and Objectives

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