



Editorial

The mission of the *IJISPM - International Journal of Information Systems and Project Management* is the dissemination of new scientific knowledge on information systems management and project management, encouraging further progress in theory and practice.

It is our great pleasure to bring you the fourth number of the twelfth volume of IJISPM. In this issue, readers will find important contributions on project management skills and learning methods, digital carbon footprint, risk management and management of changes in projects.

The first article, “Soft skills and learning methods for 21st-century project management: a review”, is authored by Jason Kearney, Taryn Bond-Barnard and Ritesh Chugh. This article addresses a notable gap in the literature by investigating the crucial soft skills required by project management students, graduates, and new practitioners entering the contemporary workforce. The literature review study adopts a concept-centric approach to examine the essential soft skills and effective learning methods for new project managers in the 21st century. Five essential 21st-century project management soft skills (communication, leadership, interpersonal, teamwork and emotional intelligence) were identified, along with three learning methods (experiential, active and reflective) that can be used to develop them. The implications of this research extend to project management students, graduates, and educators alike, emphasizing the importance of nurturing the identified soft skills. As the project management landscape evolves, the findings underscore the need for an education that prioritizes hands-on learning and reflective practices, enabling emerging project managers to excel in their roles and drive project success.

The title of the second article is “Small business, big footprint: the digital carbon footprint dilemma in small and medium-sized enterprises”, which is authored by Ágnes Sándor and Ákos Gubán. According to them, a major contributor to climate change is the emissions from Information and Communication Technology (ICT) devices and digitalization. Energy use, heat production, and the operation of assets all contribute to the production of harmful emissions. However, indirect emissions, such as production and disposal, also play a role. This paper focuses on the emissions of small and medium-sized enterprises SMEs. Is it certain that cloud services (remote data storage and management) leave a much smaller carbon footprint than ICT devices for their own use? These two solutions lead to a paradox: using more modern devices to produce less emissions requires more energy and generates more heat. This article analyses how to resolve this paradox for SMEs.

The third article, authored by Sucheta Lahiri and Jeff Saltz, is entitled “The need for a risk management framework for data science projects: a systematic literature review”. According to the authors, many data science endeavours encounter failure, surfacing at any project phase. Even after successful deployments, data science projects grapple with ethical dilemmas, such as bias and discrimination. Current project management methodologies prioritize efficiency and cost savings over risk management. The methodologies largely overlook the diverse risks of sociotechnical systems and risk articulation inherent in data science lifecycles. Conversely, while the established risk management framework (RMF) by NIST and McKinsey aims to manage Artificial Intelligence (AI) risks, there is a heavy reliance on normative definitions of risk, neglecting the multifaceted subjectivities of data science project failures. This paper reports on a systematic literature review that identifies three main themes: Big Data Execution Issues, Demand for a Risk Management Framework tailored for Large-Scale Data Science Projects, and the need for a General Risk Management Framework for all Data Science Endeavors. Another overarching focus is on how risk is articulated by the institution and the practitioners. The paper discusses a novel and adaptive data science risk management framework – “DS EthiCo RMF” – which merges project management, ethics, and risk management for diverse data science projects into one holistic framework. This agile risk management framework DS EthiCo RMF can bridge the current divide between



normative risk standards and the multitude of data science requirements, offering a human-centric method to navigate the intertwined sociotechnical risks of failure in data science projects.

“Project Change Canvas” is the fourth article and is authored by Raquel Ferreira, João Varajão, Luís Silva Rodrigues and Rui Dinis Sousa. Project management plays a critical role in boosting the success of organizations’ projects. However, no matter how well a project is managed, changes are inevitable during its execution. It is crucial to evaluate the impact of these changes before implementing them to ensure they do not compromise the project’s success. Existing techniques for assessing the effects of changes have several limitations—particularly in their failure to account for how changes might affect various aspects of project management, such as scope, cost, time, resources, communication, risk, procurement, or overall success. This article introduces a new technique – *Project Change Canvas* – that enables the systematic assessment of changes in information systems and technology projects by identifying and weighing their potential impacts across all relevant project management knowledge areas.

We would like to take this opportunity to express our gratitude to the distinguished members of the Editorial Board, for their commitment and for sharing their knowledge and experience in supporting the IJISPM.

Finally, we would like to express our gratitude to all the authors who submitted their work for their insightful visions and valuable contributions.

We hope that you, the readers, find the International Journal of Information Systems and Project Management an interesting and valuable source of information for your continued work.

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Nilton Takagi is a professor at the Computing Institute of the Federal University of Mato Grosso. He is also a researcher at the ALGORITMI/LASI Center. His current research interests are project management (addressing information systems, success management, and the public sector) and business process management. He has a Ph.D. in Technologies and Information Systems, a Master’s in Informatics, an MBA in Project Management, and a graduate degree in Computer Science. In private companies and public institutions, he has held positions as PMO director, IT manager, ERP development team manager, and project manager. He was responsible for various communications and was the author of several publications in the PM and IT/IS area.