

Call for Papers – Special Issue
Journal of Engineering and Technology Management

Transforming Business Models Across Digital Platforms: Exploring the Role of Artificial Intelligence

Guest Editors

Maria Elena Latino – Università del Salento - mariaelena.latino@unisalento.it

Giacomo Marzi - IMT Scuola Alti Studi di Lucca - giacomo.marzi@imtlucca.it

Daniel Trabucchi – Politecnico di Milano - daniel.trabucchi@polimi.it

Francesca Grippa - Northeastern University - f.grippa@northeastern.edu

Ted Ladd - Hult International Business School - ted@tedladd.com

Motivation for the Special Issue

Nowadays, more and more companies are adopting business models based on the use of two-sided platforms with the aim of connecting two different groups of customers. At the same time, there is, in several application fields, a growing introduction of AI elements in products and services. Both these topics have the potential to generate innovation. Rooted in the research by Nobel-Prize Winner Jean Tirole and Jean-Charles Rochet (Rochet and Tirole, 2006), Platform Thinking refers to a market where platforms facilitate interactions between different user groups. These platforms leverage indirect network externalities (Katz and Shapiro, 1985) to bring value. The classic illustration is the credit card market where both cardholders and merchants derive value from the platform's existence. This value arises from indirect or cross-side network externalities which associate the perceived value of one side (e.g., cardholders) with the availability of the other (e.g., merchants accepting cards). As the concept progressed, "two-sided markets" broadened to "two-sided platforms", indicating a shift from merely linking customers and suppliers to connecting two customer groups through specific network effects, easing interactions (Evans and Schmalensee, 2016). These platforms, beyond just acting as connectors, offer services that benefit both sides. The emphasis in platform studies is the non-linear flow of value creation and capture. Over time, these platforms can evolve into multi-sided versions, expanding their ecosystem (Hagiu and Wright, 2015). Further advancements introduced non-transactional or orthogonal models, emphasizing data-driven value opportunities, especially with AI advancements (Trabucchi et al., 2017). Often, platforms amalgamate transactional and orthogonal features, leading to Hybrid Platforms like Uber (Trabucchi and Buganza, 2020). Artificial Intelligence is transforming business, society, and stakeholder experiences. It's defined as a system's capability to interpret data, learn, and apply this learning flexibly for specific tasks (Kaplan & Haenlein, 2019b). AI uses data from sources like IoT to identify patterns using machine learning and analytics, which enable computers to learn without specific programming (Kaplan & Haenlein, 2020; Herrmann, H., 2022). This evolution is evident in products and services across industries, from Apple's Siri to skin cancer detection systems and service robots. These robots utilize diverse data sources to offer tailored services (Cockshott & Renaud, 2016; Gonzalez-Jimenez, 2018; Keisner et al., 2016). AI applications are broadening, impacting areas like agri-food traceability (Latino et al., 2022), supply chain management (Patrucco et al., 2023), and sustainability in operations (Corallo et al., 2023). In marketing, AI aids in predicting consumer behaviors (Baesens et al., 2004) and generating tailored online recommendations (Kim et al., 2001). Furthermore, AI's influence in social media is growing (Kostin, 2018; Moncrief, 2017; Payne et al., 2018). From an academic viewpoint, AI research spans ethical concerns (Cath, 2018), deep learning advancements (LeCun et al., 2015), and its multifaceted impacts on an interconnected business landscape (Huang & Rust, 2018; Solaimani, S., & Swaak, L., 2023).

This special issue invites scholars to reflect on the innovation opportunities deriving from the application of artificial intelligence to platform thinking in fields (e.g., health, manufacturing, agri-food, retailing). Therefore, we welcome empirical, methodological or conceptual papers related to (but not necessarily limited to) the following research questions:

- How AI can better support knowledge management in two-sided platforms?
- How AI can improve performance in two-side platforms?
- How AI can improve sustainability in two-side platforms?
- Which AI tools can be used or can be developed to foster innovation in platform thinking?
- How business models and innovation strategies need to be changed to encompass AI tools in two-sided platforms?

Papers focused on developing new methods or on understanding the existing ones are welcome. As well as those based on implications of different methodological approaches to provide guidelines/best practices in the investigated research topic.

Note

This topic is addressed as special Track in the IFKAD 2024 conference. More information: <https://www.ifkad.org/special-track/10-2024/>

(Recommended, not mandatory) Pre-Submission Development workshop

This call for papers is linked with **5th edition of Symplatform** that will take place in September 6th (<https://symplatform.com/#symplatform-2024>).

The goal is to use the conference as a pre-screening session and invite papers that show a good potential to submit to this Special Issue in the JET-M journal. In particular, the flow is:

- Extended abstract submission through Symplatform website: by April 30th, 2024
- Acceptance by May 30th, 2024
- Draft full paper submitted by August 30th, 2024
- Presentation at Symplatform online on September 3rd to 5th, on in Lecco (Lake Como, Italy) on September 6th

Timeline

Submission (optional, but recommended) to Symplatform (**Extended Abstract**): April 30th, 2024

Submission Open Date: May 1, 2024

Participation (optional) at Symplatform: September, 2024

Submission Final Manuscript: November 15th, 2024

Editorial final decision (expected): June, 1, 2025

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