Editorial: Platforms and Ecosystems

Chris McPhee, Editor-in-Chief
Ozgur Dedehayir and Marko Seppänen, Guest Editors

From the Editor-in-Chief

Welcome to the September 2017 issue of the *Technology Innovation Management Review*. This month's editorial theme is **Platforms and Ecosystems**, and it is my pleasure to introduce our Guest Editors, **Ozgur Dedehayir**, the Vice-Chancellor's Research Fellow at the Queensland University of Technology (QUT), Australia, and **Marko Seppänen**, a Full Professor in the field of Industrial Management at Tampere University of Technology, Finland.

This issue arose out of the newly created ISPIM special interest group on Platforms and Ecosystems (ispim-innovation.com/platforms-ecosystems). Each article was developed from a paper presented at the ISPIM Innovation Conference in Vienna, Austria, June 18–21, 2017. ISPIM (ispim-innovation.com) – the International Society for Professional Innovation Management – is a network of researchers, industrialists, consultants, and public bodies who share an interest in innovation management.

For future issues, we are accepting general submissions of articles on technology entrepreneurship, innovation management, and other topics relevant to launching and growing technology companies and solving practical problems in emerging domains. Please contact us (timreview.ca/contact) with potential article topics and submissions.

Chris McPhee
Editor-in-Chief

From the Guest Editors

It gives us great pleasure to introduce this special issue on Platforms and Ecosystems. The past several years have seen growing interest in platforms, which refer to loosely coupled activity systems that facilitate the exchange of products (Choudary, 2015; Mäkinen et al., 2014; Parker et al., 2016; van Alstyne et al., 2016). Platforms, specifically digital ones, bring together an ecosystem of producers, users, and complementary service providers, thereby making it easy for them to co-create value embedded in new ideas, technologies, and knowledge (e.g., Afuah & Tucci, 2012; Autio et al., 2016; Dushnitsky & Klueter, 2011; Frey et al., 2011; Thomas et al., 2014).

The combination of platforms and ecosystems has been referred to as the platform economy (Kenney & Zysman, 2016), a phenomenon that encapsulates a growing number of digitally enabled activities in business, politics, and social interaction. In this platform economy, incumbents as well as startups face challenges as they strive for a platform strategy, requiring them to develop new business models (Eloranta & Turunen, 2016; Parker et al., 2016). Regulators are not exempt from new challenges brought about by the platform economy either (Acquier et al., 2017; Murillo et al., 2017). For example, cross-industry or convergent innovation that accompanies ecosystem creation can result in higher levels of uncertainty and risk for all stakeholders concerned (Enkel & Heil, 2014; Mason et al., 2013). Meanwhile, the overall function of the platform ecosystem requires an orchestrator – a central figure that secures valuable resources and mitigates arising problems (Dhanaraj & Parkhe, 2006). The present special issue subsequently focuses on such challenges inherent to platforms and ecosystems, with insights on how organizations can deal with them.

The first article, by **Mikko Dufva**, **Raija Koivisto**, **Leena Ilmola-Sheppard**, and **Seija Junno**, addresses platform economy development and the drivers anticipated to define its future trajectories. The authors suggest that the development of the platform economy is influenced by a range of uncertainties sourced from technologies, geopolitical power structures, public and private actors,

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and the regulatory environment, among others. From an examination of the heavy engineering industry, the article arrives at a list of key uncertainties and scenarios (i.e., alternative descriptions of platform economy futures) based on these uncertainties, together with strategies to cope with these scenarios.

The second article, by **Heidi Korhonen**, **Kaisa Still**, **Marko Seppänen**, **Miika Kumpulainen**, **Arho Suominen**, and **Katri Valkokari**, focuses on startups, which are often burdened by limited resources and network positions in ecosystems. The article explores how startups connect producers and users in their endeavour to create and capture value through digital platforms. Through interviews with 29 platform startups at SLUSH, a leading European startup event, the authors show that many of these startups had big ambitions, targeting millions of users of their platforms. And while they aimed to deliver new and better services to users, and new markets for producers, many startups determined these needs on their own rather than letting users and producers identify the needs and create new solutions.

The third article, by **Minna Pikkarainen**, **Mari Ervasti**, **Pia Hurmelinna-Laukkanen**, and **Satu Nätti**, examines the roles of innovation network orchestrators and their actions to facilitate networked activities in different phases of the innovation process. The empirical focus of the article is a healthcare ecosystem that co-creates technological innovations to support the pediatric surgery journey. Interviews, workshops, and online discussions involving various stakeholders suggest that an orchestrator can take different roles over time to create a democratic and collegial atmosphere for the ecosystem. However, it appears that contextual factors such as rules and regulations can restrict orchestration activities.

The fourth article, by **Mark Phillips**, **Tomás Harrington**, and **Jagjit Singh Srai**, addresses the integration challenges facing organizations in nascent and convergent ecosystems. In their study of five longitudinal cases in the precision medicine and digital health contexts, the authors identify a need for organizations to embrace complexity by adopting approaches that balance credibility-seeking and advantage-seeking behaviours. The study underlines various kinds of risk that emerge from integration, as well as strategies to negotiate these risks through analytic approaches that address anticipated or perceived issues (i.e., actions to sustain, seek credibility, and reduce risk), and synthetic approaches that aim to position the innovation in light of future options (i.e., value creation, advantage-seeking, and shaping activities).

Finally, **Mokter Hossain** and **Astrid Heidemann Lassen** address the question: "How do digital platforms for ideas, technologies, and knowledge transfer act as enablers for digital transformation?" The authors suggest that, although digital platforms enable organizations to bring external knowledge to solve internal problems, they also bring new challenges. For example, knowledge sharing via digital platforms often entails a high degree of interaction between different sides of the platform, requiring new skills, tools, and management structures. To negotiate these challenges and optimize the potential of digital platforms, the authors provide a list of seven platform categories that organizations can select from to best suit their needs.

It seems inevitable that the platform economy is going to greatly affect how businesses are run in every industry. Even though this digital transformation can be seen as a threat, we would like to emphasize the opportunities that are opening up at every level – for society, for businesses, and for individuals. We hope that you enjoy this special issue and these pieces of research that provide some fruitful seeds of thought.

Ozgur Dedehayir and Marko Seppänen
Guest Editors

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About the Editors

Chris McPhee is Editor-in-Chief of the *Technology Innovation Management Review*. He holds an MASc degree in Technology Innovation Management from Carleton University in Ottawa, Canada, and BScH and MSc degrees in Biology from Queen's University in Kingston, Canada. Chris has nearly 20 years of management, design, and content-development experience in Canada and Scotland, primarily in the science, health, and education sectors. As an advisor and editor, he helps entrepreneurs, executives, and researchers develop and express their ideas.

Ozgur Dedehayir is the Vice-Chancellor's Research Fellow at the Queensland University of Technology (QUT), Australia. Dr. Dedehayir received his PhD in Technology Strategy from the Tampere University of Technology (TUT), Finland. His research focuses on the creation and the dynamics of change in innovation ecosystems. He has published in various journals in the technology and innovation management field, including Technology Analysis and Strategic Management, Technological Forecasting and Social Change, and Technovation.

Marko Seppänen, PhD, is a Full Professor in the field of Industrial Management at Tampere University of Technology, Finland. Prof. Seppänen is an expert in managing value creation in business ecosystems, business concept development, and innovation management. In his latest research, he has examined, for example, platform-based competition in business ecosystems and innovation management in business networks. His research has appeared in high-quality peer-reviewed journals such as the Journal of Product Innovation Management, Technological Forecasting and Social Change, the Journal of Systems and Software, and the International Journal of Physical Distribution & Logistics Management.

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