Collaborative Innovation Spaces as Enablers of Collective Leadership in Catalysing Ecosystem Emergence

Pia Adibe
LUT School of Business, Lappeenranta, Finland

pia.adibe@lut.fi

Abstract: This conceptual paper explores how collaborative innovation spaces (CIS) enable collective leadership in catalysing ecosystem emergence. Responding to current shifts in innovation management driven by digitalisation and platform ecosystems, this study builds on the recognition that cross-sector collaboration in ecosystems is essential to tackle complex societal challenges, from sustainability transitions to digital transformation for sustainable value creation. Although CIS, such as living labs, makerspaces, innovation hubs, virtual collaboration spaces, and communities, have been widely studied as promising arenas for open innovation and experimentation, their role in enabling collective leadership for ecosystem emergence remains undertheorised. To address this shortcoming, this study reviews literature on CIS and collective leadership, offering a novel synthesis of spatial, relational, and processual perspectives to explore the role of CIS as an enabler of collective leadership. In this paper, I define CIS as liminal: temporary, transitional spaces of being and becoming, where actors' relation(ship)s and interactions are deeply situated in a particular setting. Such in-between, transitional states where established roles, norms, and boundaries are suspended foster alternative ways of thinking, learning, and relational dynamics. Building on relational and processual perspectives, I introduce the concept of situational embeddedness to describe how it emphasises the context-dependent nature of CIS and underscores the importance of appreciating the possibilities created by space and shared interests. It draws on the notion of the social field—the interior dimension of a social system—to argue that leadership is not just enacted by individuals but co-created through collective attention, intention, and relational presence within CIS. Consequently, CIS enables collective leadership by fostering conditions in which individual decisions, interactions, and actions within a specific context become sources of emergence, reflecting individuals' transformative potential. As a result, I develop a conceptual overview of CIS as an enabler for collective leadership in catalysing ecosystem emergence. Rather than presenting new empirical data, this study advances theoretical understanding with several theoretical contributions and provides practical implications for innovation managers, ecosystem actors, and policymakers seeking to foster collaborative approaches.

Keywords: Collaborative innovation space, Collective leadership, Ecosystem emergence, Liminality, Situated embeddedness

1. Introduction

The ongoing shift in innovation management, driven by platform ecosystems and grand challenges, has extended the perspective on open innovation models to a broader ecosystemic understanding (Ferrigno et al., 2023; Ritala, 2023). This evolution necessitates multifaceted and sustained cross-sector collaboration as an imperative for value co-creation and problem-solving in complex environments (Autio & Thomas, 2022; Ritala, 2023). As collaborative innovation spaces (CIS) are characterised by less formal structures, routines, and practices, they allow actors to collectively navigate inter-organisational politics (Caccamo, 2020; Ollila & Yström, 2021) to initiate collaborations (e.g., Adibe et al., 2024). Accordingly, CIS provide an ideal setting for creating conditions for ecosystem emergence (Thompson et al., 2018; Daymond et al., 2023)—a process in which actors collectively discover, negotiate, and develop the structures, roles, and shared value propositions that constitute a functioning ecosystem (Autio et al., 2014; Thomas, Autio & Gann, 2022; Daymond et al., 2023). This processual, socially constructed view of ecosystem emergence aligns well with the concept of collective leadership, understood as a property of a social system that arises when individuals engage in collaborative thinking and action (Drath, 2001). However, although collective leadership and CIS have been widely studied, the intersection between these theoretical perspectives (Barney, 2018), particularly in the context of enabling ecosystem emergence, remains underexplored.

To address this shortcoming, I review literature on CIS and collective leadership to explore the role of CIS as an enabler of relational, collective leadership. In doing so, I advance theoretical understanding by integrating and extending existing research rather than presenting new empirical data (Gilson & Goldberg, 2015; Yadav, 2010). In this conceptual paper, I define CIS as liminal—temporary, transitional spaces of being and becoming (Küpers, 2011), where actors' relationships and interactions (Bradbury & Lichtenstein, 2000) are deeply situated within a particular setting (Scharmer & Pomeroy, 2024). In other words, drawing on Scharmer and Pomeroy's (2024) notion of the social field as the interior dimension of a social system, I propose that situational embeddedness in CIS refers to how relational dynamics shape processes of being and becoming. These dynamics create a living relational space of a social system as a property of collective leadership. In other words, by highlighting this context-dependent nature of CIS (Leminen et al., 2024), I suggest that such embeddedness, shaped by the

dynamic relations between being and becoming, is inherently alive. This insight invites a deeper appreciation and evaluation of the possibilities that emerge from space (Caccamo, 2020) and from the situation through shared interests (Thomas & Autio, 2014; Dzhengiz & Patala, 2023). Consequently, CIS enables collective leadership by fostering conditions in which individual decisions, interactions, and actions within a specific context become sources of emergence, reflecting individuals' transformative potential (Ospina, 2017). As a result, I develop a conceptual overview of CIS as an enabler for collective leadership in catalysing ecosystem emergence.

With these insights, my study makes theoretical contributions to CIS, collective leadership, and ecosystem literature. Through synthesising spatial, relational, and processual perspectives, I offer a conceptual foundation for future research and suggest further explorations of how different relational and contextual conditions in CIS interact to influence collective leadership within cross-sectoral collaborations and support broader ecosystem transformation.

Below, I first review the existing literature on CIS, their diverse forms, liminality, and situational embeddedness. Next, I elaborate on collective leadership and introduce relational perspectives on social interaction that clarify situational embeddedness within CIS, enabling emergence in collective leadership. I then propose a new conceptualisation of CIS as enablers of collective leadership, providing insights for innovation managers and ecosystem actors seeking to initiate and catalyse ecosystem emergence. I conclude with the key contributions, practical implications for innovation managers, policymakers, and ecosystem actors, and finally, with the limitations and suggestions of directions for future research.

2. Collaborative Innovation Spaces (CIS)

Although innovation scholars have conducted profound research on inter-organisational collaboration and made progress in analysing the relationship between collaboration, innovation, and the role of space (Boutillier et al., 2020; Caccamo, 2020; Ollila & Yström, 2021; Doloreux et al., 2023), they have paid less attention to the role of CIS—the context in which innovation takes place (e.g., Leminen et al., 2024)—as enablers of collective leadership in the context of ecosystem emergence. As a result, the implications of CIS for collective leadership remain largely unexplored in the ecosystem emergence literature.

CIS, such as cross-sector partnerships, living labs, innovation hubs, makerspaces, and virtual collaboration spaces and communities (Leminen et al., 2024) are characterised by less formal structures, routines, and practices. For example, living labs are open innovation ecosystems in real-life environments that foster co-creation and open innovation through testing and experimentation among the key actors of the Quadruple Helix Model: citizens, government, industry, and academia (ENoLL, 2025). In their recent article, Ollila and Yström (2025) examined large-scale Triple Helix (academia, industry, and government) collaborations in Northern Europe, which were combining public and private funding with the aim of organising collective activities to promote innovation and support industrial or regional development and sustainability. They shared similar concerns about the conditions for interaction and how members could relate to one another, expressing interest in learning more about multi-stakeholder management to foster value creation.

According to Caccamo (2020), innovation spaces have a material dimension, such as physical or digital infrastructure and objects, and a social dimension, which encompasses relationships and organisational culture. In their study of collaborative innovation practices, Yström and Agogué (2020) introduced the concept of "*in-between spaces*" as physical, cognitive, and virtual spaces between actors. These in-between spaces are "*relational spaces of becoming*", embracing disorder and ambiguity, "*created through social relationships*" (Ollila & Yström, 2025, 2). What is noteworthy here are the dynamics shaping these recursive spaces "*between actors created by and simultaneously creating social interaction*" (Yström & Agogué, 2020, 140).

Similarly, Oldenburg's (2001) "*third places*" are informal venues for social interaction beyond primary work activities that foster substantial innovation in community involvement activities. Furnari (2014) builds on the concept of third places, using it as a metaphorical and analytical anchor to characterise *interstitial spaces* as experimental, occasional, and transitory settings. Individuals interacting in these settings are more attentive to the immediate situation and the context, can experiment more easily, and are likely to experience liminality. Indeed, instances of interstitial spaces are common in contemporary cases of emerging practices (Furnari, 2014), catalysing interaction in the initiation of cross-field collaboration (Villani & Phillips, 2020) and innovation activities of collaborating groups and organisations (Powell et al., 1996; Greer & Lei, 2012; Ollila & Yström, 2016; Heil & Bornemann, 2018).

2.1 Liminality—a Transitional State of Becoming

Despite their diverse forms, CIS share core characteristics: They are socially constructed, experimentally oriented, and inherently liminal spaces (Caccamo, 2020). In organisational space literature, liminal spaces are studied as, e.g., physical corridors, university-industry centres, incubators, or social networks (Stephenson et al., 2020). Liminality denotes a transitional state of becoming, being on the threshold or boundary—no longer in the previous state, yet not fully in the next (Küpers, 2011; Tagliaventi, 2019; Piironen, 2024; Popova et al., 2025). This is an in-between, transitional state in which established roles, norms, and boundaries are suspended (Turner, 1974).

As individuals or groups inhabit this liminal space—no longer bound by former identities or structures yet not entirely redefined (e.g., Tagliaventi, 2019)—they become more open to alternative ways of thinking, relating, and acting. This can foster the potential for innovation, collective sensemaking, and the reconfiguration of social or organisational arrangements. As such, liminality often entails intense learning and development, and the ambiguity of liminal space blurs boundaries between actors. This may also cause confusion and hinder navigation in the complexity of relationships (Ollila & Yström, 2025). Despite the "strangeness" of the liminality, it embraces endings and new beginnings so that it can offer a transformational outcome. Popova et al. (2025, 40) describe liminoid transition processes as situations in which individuals *"step out of their old world, generate new ideas, and experiment and innovate to initiate change*." Similarly, Cartel, Boxenbaum, and Aggeri (2019) conceptualise experimental spaces as transitory social settings where actors test alternative action models within institutionalised fields.

2.2 Situational Embeddedness of CIS

Scharmer and Pomeroy (2024) denote these spaces of collaboration, relationships, and interactions as the social field—the interior dimension of a system—where the *"whole is viewed as an emergent entity worthy of attention and its own specific forms of inquiry"* (2024, p. 26). Understanding the collective interior dimensions of social systems, beyond visible relational patterns, highlights the social field where these patterns originate and potential futures are sensed (ibid). Drawing on this conceptualisation in combination with liminality, I define CIS as *temporary, transitional spaces of being and becoming, where actors' relation(ship)s and interactions are deeply situated in a particular setting* (Scharmer and Pomeroy, 2024). This situatedness emphasises the context-dependent nature of CIS (Leminen et al., 2024) and underscores the importance of appreciating the possibilities created by space (Caccamo, 2020) and shared interests (Furnari, 2014; Thomas & Autio, 2014; Dzhengiz & Patala, 2023).

To sum up, situational embeddedness in CIS refers to how interactions, decisions, and innovations are shaped by the dynamic, relational, and contextual conditions of a specific moment in space and time. This approach recognises space as an essential catalyst in co-shaping encounters and emphasises the social field and full presence in the moment (Scharmer & Kaufer, 2013; Scharmer & Pomeroy, 2024) as crucial for sensing and presencing emerging opportunities— *"to see the coming-into-being of the new" (Scharmer, 2001, p. 137).* Scharmer (2001) refers to this capacity as a form of tacit knowledge that precedes its embodiment in everyday practice. Such knowledge arises from the interplay between individual and collective intention and attention (Scharmer & Pomeroy, 2024), where alignment between the two can create conditions for emergence. In this article, I extend this perspective to the realm of collective leadership enabled by CIS.

3. Collective Leadership

In this paper, collective leadership is understood as relational leadership (Drath, 2001; Uhl-Bien, 2006; Drath et al., 2008; Ospina, 2017), which is enacted through social interactions that generate shared direction and meaning (Crevani, Lindgren, & Packendorff, 2010; Denis et al., 2001, 2012; Raelin, 2016; Empson et al., 2023). Consistent with Drath's (2001) notion of relational dialogue, collective leadership is conceptualised not as an individual's act but as a social system's property (Ospina, 2017). Thus, leadership becomes a collaborative process in which individuals reflect and contribute to collective participation.

Collective leadership does not depend on hierarchical positions within the organisation or on followers (Uhl-Bien, 2006). Instead, it focuses on the system of relationships (Ospina, 2017) that continuously evolve in relating with oneself, others, and 'world' (Scharmer & Pomeroy, 2019). Here, 'world' denotes the situational context and inter-organisational reality of individuals. Relating with others can be easily understood by establishing connections, understanding, and/or engaging with them emotionally or socially. For example, how we relate to each other shapes the group dynamic. Individual and cultural qualities of relating then affect the patterns of

thinking, conversing, and organising (Scharmer & Pomeroy, 2019). Thus, relating with self and world matters, too.

Leadership's relational dimensions are amplified when it is viewed as the outcome of shared sense-making, emerging from the interdependencies among organisations and their members (Ospina et al., 2012; Foldy et al., 2023). Similarly, Fletcher (2004) describes distributed leadership as fostering high-quality social interactions that require relational skills such as self-awareness, empathy, vulnerability, and openness to learning. This highlights the possibilities of encounters in specific situations and the importance of presencing—being fully present in the moment.

Ospina (2017, 275) underscores the importance of space in collective leadership as *"intentional work to create spaces where participants can enact their leadership for the common good."* Relational leadership builds on this by emphasising leadership's collective and situated nature, focusing on how it is produced and performed in specific contexts (Crevani et al., 2007; Denis et al., 2012; Shevchuk & Reuter, 2025). Individual actors (self), the group or network (others), and the situational context (space) are all significant as they all contribute to the processual dynamics in the in-between space. Therefore, the individual mindsets—including values, beliefs, worldviews, and related cognitive, emotional, and relational capacities (often referred to as inner or personal dimensions, e.g., Wamsler, 2020, or conditions, e.g. Hakio & Mattelmäki, 2023)—play a crucial role. Alongside activities, they represent what Meadows (1999) calls 'deep leverage points' for enabling transformational change. The importance of inner dimensions is highlighted by social movements such as the IDG Initiative, which promotes Inner Development Goals (IDGs) as a means better to achieve the Sustainable Development Goals (SDGs) (IDG Foundation, 2023).

To summarise, Scharmer and Pomeroy's (2024) conceptualisation of the social field—the interior dimension of a system encompassing collaboration, relationships, and interactions (i.e., CIS in this paper)—can be understood as central to collective leadership, which fundamentally revolves around relation(ship)s in social systems (Ospina, 2017). This relational social system is alive, continuously engaged in being and becoming through relationships and interactions (Bradbury & Lichtenstein, 2000) with oneself, others, and world. Thus, acknowledging the inner and outer dimensions of individuals' relational experiences is critically important for the transformational potential to emerge in CIS.

4. Discussion and Conclusions

In this article, I have examined how CIS can be understood as enablers of relational, collective leadership, catalysing ecosystem emergence. I have expanded existing conceptions of CIS and collective leadership beyond the social interactions and interconnections between individuals to include the significance of situational embeddedness in the constant process of being and becoming. To address liminality as an inherent quality of CIS, I defined CIS as temporary, transitional spaces of being and becoming, where individuals' relation(ship)s and interactions are deeply embedded in specific contexts. Drawing on Scharmer and Pomeroy's (2024) concept of the social field as the interior of a social system, I proposed that situational embeddedness in CIS and the dynamics shaping the process of being and becoming—how individuals relate with themselves, others, and world—create a living relational space of a social system as a property of collective leadership.

Recognising the inner and outer dimensions of relational experiences in this process to align individual and collective intention and attention around, e.g., a shared vision and purpose, can enable transformative potential to emerge. Consequently, CIS enables collective leadership to catalyse ecosystem emergence (Figure 1).

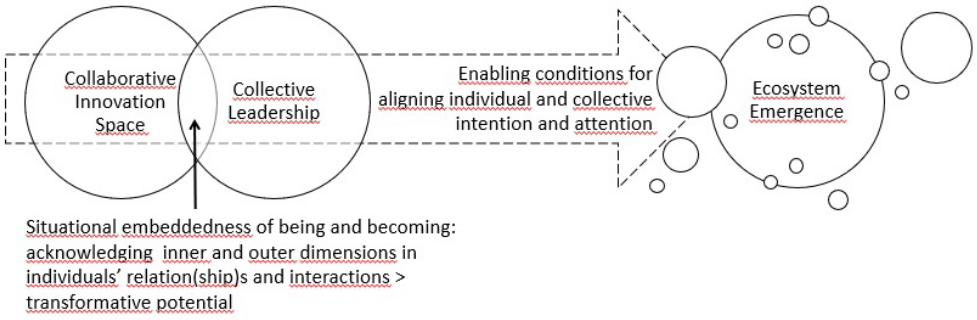

Figure 1: A conceptual overview of collaborative innovation space as an enabler for collective leadership in catalysing ecosystem emergence

4.1 Theoretical Contributions

This paper makes several theoretical contributions to the literature of CIS, collective leadership, and ecosystem research. First, it offers a novel synthesis of spatial, relational, and processual perspectives by conceptualising collaborative innovation spaces (CIS) as temporary, transitional spaces of being and becoming. This integration advances relational collective leadership theory (e.g., Uhl-Bien, 2006; Ospina, 2017) by demonstrating how the spatial (and temporal) dimensions of CIS shape the emergence of leadership through situated interactions and relation(ship)s. Second, by framing CIS as liminal, the study deepens the understanding of leadership as a state of becoming, rather than a fixed role, thereby extending the literature on liminality in organisations (Küpers, 2011; Tagliaventi, 2019) and connecting it to processual ontology (cf. Chia, 1995) of relational leadership (Crevani et al., 2010; Ospina, 2017). Finally, the concept of situational embeddedness—highlighting how relational and contextual dynamics shape leadership emergence in space and time—adds conceptual clarity to the role of recursive spaces in collaborative innovation (Yström & Agogué, 2020), offering a more nuanced understanding of how individuals' relational experiences influence systemic transformation.

4.2 Practical Implications

The study also provides practical implications for innovation managers, policymakers, and ecosystem actors. First, it reframes CIS not only as spaces for collaborative innovation but also as active enablers of relational, collective leadership. This perspective encourages managers to design CIS with intentionality, fostering environments where individual and collective intention and attention support emergent leadership practices and create enabling conditions. Second, the study emphasises recognising the inner dimensions of individuals as 'deep leverage points' (Meadows, 1999) that managers and facilitators should invest in developing practices and processes. Lastly, the paper highlights the potential of CIS to enable collective leadership in catalysing ecosystem emergence, e.g., in complex cross-sector partnerships. CIS can help actors transcend organisational and institutional boundaries and co-create shared visions by providing a liminal, temporarily non-hierarchical environment for experimentation and dialogue to nurture relationships and to create conditions for catalysing emergence. These insights can inform not only the design of CIS but also broader approaches to fostering innovation in ecosystems through relational and context-sensitive practices.

4.3 Limitations and Future Research

A key limitation of this work is the focus on the CIS's enabling side of collective leadership. As widely acknowledged, the innovation barriers and collaboration challenges may include, e.g., inherent tensions or paradoxical ones that can easily lead to conflict or an early failure of collaboration (e.g., Adibe et al., 2024; Ollila & Yström, 2025). However, recognising this limitation as a potential bias, my paper is purposely focused on integrating theoretical perspectives (Barney, 2018) for conceptual exploration rather than explicitly seeking solutions to innovation challenges addressed by the literature. Despite its limitations, my paper offers novel insights and a conceptual overview into how CIS can be understood as enablers of relational, collective leadership, catalysing ecosystem emergence.

Future research could benefit from empirically exploring the theoretical insights of this study. For example, examining the role of CIS and collective leadership in cross-sector partnerships could provide valuable insights for broader ecosystem transformation. Longitudinal research with theoretical lenses of process studies could be particularly useful in studying the ecosystem emergence and evolution phases and clarifying the dynamic nature of interconnectedness and the relational dimensions in the process. Closer attention to the qualities of relations and leadership emerging from the social field could shed light on the processes of being and becoming within CIS. More philosophical exploration of CIS's different forms and dimensions (e.g., virtual, cognitive, mental) in relation to collective leadership could further explicate the nuances in the underlying dynamics of emergence.

Acknowledgements

The author would like to sincerely thank the Finnish Foundation for Economic Education for funding this study.

Ethics declarations: Ethical clearance was not required for the research.

AI declarations: AI tools were used to the extent of initial ideation and language proofreading in the creation of this paper.

References

Adibe, P., Vesin, S., Almpanopoulou, A., and Blomqvist, K. (2024) 'A threshold for collaborative innovation: Exploring the dimensions of liminality in a data economy initiative', *R&D Management,* 54(2), 300-322.

Autio, E., Kenney, M., Mustar, P., Siegel, D., and Wright, M. (2014) 'Entrepreneurial innovation: the importance of context', *Research Policy,* 43(7), 1097-1108.

Autio, E. and Thomas, L.D.W. (2022) 'Researching ecosystems in innovation contexts', *Innovation and Management Review,* 19(1), 12-25.

Barney, J. (2018) 'Editor's comments: Positioning a theory paper for publication', *Academy of Management Review*, 43(3), 345-348.

Boutillier, S., Capdevila, I., Dupont, L., and Morel, L. (2020) 'Collaborative spaces promoting creativity and innovation', *Journal of Innovation Economics & Management,* 31(1), 1-9.

Bradbury, H., & Lichtenstein, B. M. B. 2000. 'Relationality in organizational research: Exploring the space between' *Organization Science,* 11(5), 551-564.

Caccamo, M. (2020) 'Leveraging innovation spaces to foster collaborative innovation', *Creativity and Innovation Management,* 29(1), 178-191.

Cartel, M., Boxenbaum, E., and Aggeri, F. (2019) 'Just for fun! How experimental spaces stimulate innovation in institutionalized fields', *Organization Studies,* 40(1), 65-92.

Chia, R. (1995) 'From modern to postmodern organizational analysis', *Organization Studies*, 16(4), 579-604.

Crevani, L., Lindgren, M., and Packendorff, J. (2007) 'Shared leadership: A post-heroic perspective on leadership as a collective construction', *International Journal of Leadership Studies,* 3(1), 40-67.

Crevani, L., Lindgren, M., and Packendorff, J. (2010) 'Leadership, not leaders: On the study of leadership as practices and interactions', *Scandinavian Journal of Management*, 26(1), 77-86.

Daymond, J., Knight, E., Rumyantseva, M., and Maguire, S. (2023) 'Managing ecosystem emergence and evolution: strategies for ecosystem architects', *Strategic Management Journal,* 44(4), 1-27.

Denis, J. L., Lamothe, L., and Langley, A. (2001) The dynamics of collective leadership and strategic change in pluralistic organizations. *Academy of Management journal*, 44(4), 809-837.

Denis, J.-L., Langley, A., and Sergi, V. (2012) 'Leadership in the plural', *The Academy of Management Annals*, 6(1), 211–283.

Doloreux, D., Shearmur, R., Suire, R., and Berthinier-Poncet, A. (2023) 'Which types of firms use collaborative innovative spaces?', *Creativity and Innovation Management,* 32(1), 141-157.

Drath, W. H. (2001) *The deep blue sea: Rethinking the source of leadership.* Jossey-Bass.

Drath, W. H., McCauley, C. D., Palus, C. J., Van Velsor, E., O'Connor, P. M., and McGuire, J. B. (2008) 'Direction, alignment, commitment: Toward a more integrative ontology of leadership', *The Leadership Quarterly,* 19*(*6), 635-653.

Dzhengiz, T. and Patala, S. (2023) 'The role of cross-sector partnerships in the dynamics between places and innovation ecosystems', *R&D Management,* 54(2), 370-397.

Empson, L., Langley, A., and Sergi, V. (2023) 'When everyone and no one is a leader: Constructing individual leadership identities while sustaining an organizational narrative of collective leadership', *Organization Studies*, 44(2), 201-227.

Ferrigno, G., Crupi, A., Di Minin, A., and Ritala, P. (2023) '50+ years of R&D Management: a retrospective synthesis and new research trajectories', *R&D Management*, 53(5), 900-926.

Fletcher, J. K. (2004) 'The paradox of postheroic leadership: an essay on gender, power, and transformational change', *The Leadership Quarterly,* 15(5), 647–661.

Foldy, E. G., and Ospina, S. M. (2023) 'Contestation, negotiation, and resolution': The relationship between power and collective leadership', *International Journal of Management Reviews,* 25(3), 546-563.

Furnari, S. (2014) 'Interstitial spaces: Microinteraction settings and the genesis of new practices between institutional fields', *Academy of Management Review*, 39(4), 439-462.

Gilson, L. L. & Goldberg, C. B. (2015) 'Editors' comment: So, what is a conceptual paper?'. *Group & Organization Management*, 40(2), 127-130.

Greer, C. R., and Lei, D. (2012) 'Collaborative innovation with customers: A review of the literature and suggestions for future research', *International Journal of Management Reviews*, 14(1), 63-84.

Hakio, K., and Mattelmäki, T. (2023) 'Turning inwards for change–The role of inner conditions in transformative co-design', *The Design Journal*, 26(6), 838-855.

Heil, S., and Bornemann, T. (2018) ,'Creating shareholder value via collaborative innovation: the role of industry and resource alignment in knowledge exploration', *R&D Management*, 48(4), 394-409.

IDG Foundation (2023) 'Inner development goals' [online], retrieved from https://innerdevelopmentgoals.org/about/ (April 2, 2025)

Küpers, W. (2011) 'Dancing on the līmen~~~embodied and creative inter-places as thresholds of be(com)ing: phenomenological perspectives on liminality and transitional spaces in organization and leadership', *Tamara: Journal for Critical Organization Inquiry,* 9(3-4), 45-59.

Leminen, S., De Vita, K., Westerlund, M., and Ritala, P. (2024) 'Places and spaces of collaborative R&D and innovation: navigating the role of physical and virtual contexts', *R&D Management*, 54(2), 201-213.

Meadows, D. (1999) *Leverage points. Places to Intervene in a System.* Hartland: The Sustainability Institute.

Ollila, S. and Yström, A. (2025), '"In-Between Spaces" for Collaborative Innovation: Elucidating Interrelated Relational Spaces', in Oliver, A.L., Sydow, J. and Cohendet, P. (eds.) *Spaces for Creativity and Innovation Within and Across*

Organizational Boundaries, Research in the Sociology of Organizations, vol. 91, pp. 21-43. Leeds: Emerald Publishing Limited.

Ollila, S., and Yström, A. (2021) 'Designing spaces for collaborative innovation: The role of organizational politics', *ISPIM Conference Proceedings, Berlin, June 20-23, 2021.*

Ollila, S. and Yström, A. (2016) Exploring Design Principles of Organizing for Collaborative Innovation: The Case of an Open Innovation Initiative. *Creativity and Innovation Management,* 25(3), 363-377.

Ospina, S. M. (2017) 'Collective leadership and context in public administration: Bridging public leadership research and leadership studies', *Public Administration Review*, 77(2), 275-287.

Ospina, S. M., Foldy, E.G., El Hadidy, W., Dodge, J., Hofmann-Pinilla, A. & Su, C. (2012) Social change leadership as relational leadership, in Uhl-Bien, M. and Ospina, S.M. (eds.) *Advancing Relational Leadership Research: A Dialogue Among Perspectives,* pp. 255-302. Charlotte, BC: Information Age Publishing.

Piironen, S. (2024) 'Liminal Spaces in Organizing Leadership, counterculture and change-interventions', *Tampere University Dissertations 1086.*

Popova, I., Hirst, A., Down, S., and Ybema, S. (2025) 'Establishing the liminal-liminoid distinction in organization studies: How individuals pursue a liminoid transition in a social venture incubator', *Organization Studies*, 01708406251326679.

Powell, W.W., Koput, K.W. and Smith-Doerr, L. (1996) 'Interorganizational Collaboration and the Locus of innovation: Networks of Learning in Biotechnology', *Administrative Science Quarterly,* 41, 116-145.

Pushpananthan, G., and Elmquist, M. (2022) 'Joining forces to create value: the emergence of an innovation ecosystem', *Technovation*, 115, 102453.

Raelin, J. A. (2016) 'Imagine there are no leaders: Reframing leadership as collaborative agency', *Leadership*, 12(2), 131-158.

Remneland Wikhamn, B., & Styhre, A. (2023) 'Open innovation ecosystem organizing from a process view: a longitudinal study in the making of an innovation hub', *R&D Management*, 53(1), 24-42.

Ritala, P., (2023) 'Grand challenges and platform ecosystems: scaling solutions for wicked ecological and societal problems', *Journal of Product Innovation Management*, 41(2), 168–183.

Scharmer, O. (2001) 'Self-transcending knowledge: Sensing and organizing around emerging opportunities', *Journal of Knowledge Management*, 5(2), 137–151.

Scharmer, O., and Kaufer, K. (2013) *Leading from the emerging future: From ego-system to eco-system economies*. Berrett-Koehler Publishers.

Scharmer, O., and Pomeroy, E. (2019) 'Social field resonance: How to research deep structures of the social system' [online], retrieved from https://medium.com/presencing-institute-blog/social-field-resonance-how-to-researchdeep-structures-of-the-social-system-544d68654abf (May 5, 2025)

Scharmer, O., and Pomeroy, E. (2024) 'Fourth Person: The Knowing of the Field', *Journal of Awareness-Based Systems Change*, 4(1), 19-48.

Shevchuk, D., and Reuter, E. (2025) 'Towards a Sociocognitive Perspective on Ecosystem Leadership: A Review of the Literature and an Agenda for Future Research', in Bataglia, W. and Segura, L. C. (eds.) *Impacts of Innovation and Cognition in Management*, pp. 287-322. Hershey, Pennsylvania: IGI Global Publishing.

Stephenson, K. A., Kuismin, A., Putnam, L. L., & Sivunen, A. (2020) 'Process studies of organizational space', *Academy of Management Annals,* 14(2), 797-827.

Tagliaventi, M.R. (2019) *Liminality in Organization Studies: Theory and Method*. New York: Routledge.

Thomas, L. D. W., and Autio, E. (2014) 'Drivers of ecosystem emergence', Conference paper.

Thomas, L. D. W., Autio, E., and Gann, D. M. (2022) 'Processes of ecosystem emergence', Technovation, 115, 102441.

Thomas, L.D.W., and Ritala, P., (2022) 'Ecosystem legitimacy emergence: a collective action view', *Journal of Management*, 48(3), 515–541.

Thompson, T.A., Purdy, J.M., and Ventresca, M.J., (2018) 'How entrepreneurial ecosystems take form: evidence from social impact initiatives in Seattle', *Strategic Entrepreneurship Journal,* 12(1), 96–116.

Turner, V. (1974) *Dramas, fields and metaphors*. Ithaca, New York: Cornell University Press.

Uhl-Bien, M. (2006) 'Relational Leadership Theory: Exploring social processes of leadership and organizing', *The Leadership Quarterly*, 17(6), 654-676.

Villani, E., and Phillips, N. (2021) 'Formal organizations and interstitial spaces: Catalysts, complexity, and the initiation of cross-field collaboration.' *Strategic Organization,* 19(1), 5-36.

Wamsler, C., Schäpke, N., Fraude, C., Stasiak, D., Bruhn, T., Lawrence, M., Schroeder, H, and Mundaca, L. (2020) 'Enabling new mindsets and transformative skills for negotiating and activating climate action: Lessons from UNFCCC conferences of the parties', *Environmental Science & Policy*, *112*, 227-235.

Winnicott, D. W. (2005) *Playing and Reality*. Routledge.

Yadav, M. S. (2010) 'The decline of conceptual articles and implications for knowledge development.' *Journal of Marketing,* 74(1), 1-19.

Yström, A., and Agogué, M. (2020) 'Exploring practices in collaborative innovation: Unpacking dynamics, relations, and enactment in in-between spaces', *Creativity and Innovation Management,* 29(1), 141-145.