The surprising collaboration: An unexpected journey of shared knowledge.

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Abstract. This case study examines how the combination of formal and informal engagements between academia and industry can support the development of digital service roadmaps in a corporate environment. Specifically, this paper discusses the role of a visiting lecturer, which simultaneously disseminates HCI applications and research strategies to students while supporting their academic pursuits. Hence, the role not only enhances academic learning, but connects academia with corporate practice, fostering knowledge sharing between academia and industry.
Through a digital transformation initiative in a global corporation, we analyse how continuous engagement with the academic environment, context, and ways of thinking have a positive impact on long-term strategic thinking, even within the constraints of business operations. The integration of academic approaches with practical business needs creates opportunities for innovation that might have been overlooked in a more conventional partnership structure. Regular interactions between academic professionals and corporate practitioners facilitated the rapid transfer of emerging theoretical frameworks into actionable digitalisation business strategies.
Our findings suggest that the flexibility and adaptability of formal-informal engagements enable organisations to dynamically respond to digitalisation opportunities while benefiting from academic rigour in strategic planning. The insights collected from this case study offer valuable lessons for organisations seeking to cultivate meaningful academic collaborations without the overhead of formal partnership agreements.

Keywords: human-computer collaboration · partnership · human-computer interaction.

1 Introduction

The digitalisation of services has become an essential strategic initiative within corporations across sectors, driven by evolving customer expectations and technological advancements. However, requests for business operations and the challenges of daily industrial settings, opportunities for innovation and strategic thinking are often overlooked and neglected, aspects that are mainly fostered within academic environments [2].

This case study examines how a hybrid model of academic-industry collaboration, which combined formal and informal engagements, influenced a corporate digital transformation team. Specifically, we focus on the impact of a *visiting lecturer role*, which serves a dual purpose: formally delivering lectures and classes on Human-Computer Interaction (HCI) and research methodologies while informally supporting students in their broader academic activities. This dynamic position enabled a continuous exchange of knowledge between academia and industry, helping the corporate team craft a well-rounded, future-focused digital service roadmap for People Services while remaining aligned with operational priorities.

Our experience challenges the traditional view that academia-industry collaboration must be highly structured and formalised. Instead, we observe how ongoing engagement with academic perspectives through structured teaching and informal mentoring can enrich corporate practices to maintain a long-term strategic focus through operational pressures. At the same time, organisations provide invaluable empirical ground for validating academic research insights, accelerating the application of theoretical frameworks in real-world business environments.

By documenting the benefits of informal collaboration, this study introduces a *collaboration framework* describing the key organisational aspects most influenced by sustained, informal academic-industry interactions. This framework highlights aspects and mechanisms through which informal engagements inform digital transformation efforts, offering practical insights for companies seeking to leverage academic expertise without the overhead of formal partnership agreements.

2 The case of the Digital Service Roadmap

Traditional models of corporate-academic collaboration often emphasise formal partnerships, structured research projects, and defined deliverables. Although formal arrangements provide an indescribable amount of value, they can create barriers to rapid knowledge exchange and practical implementation, especially effective for projects non-centred on research [3, 1]. In this direction, the development of an effective digital service roadmap, which aims to provide a strategic plan to describe the vision, milestones, and implementation of digital services, requires a nuanced understanding of multiple theoretical domains, emerging digital opportunities, and their practical applications within the corporate context. These roadmaps serve as dynamic guides that align user needs, business goals, and technological advancements to ensure seamless and impactful digital transformation. This understanding can be enriched by an ongoing dialogue between academic and industrial practitioners, creating opportunities for knowledge exchange that benefit both communities: on one side, questioning existing practices, on the other side, providing practical use-case.

Our experience suggests that maintaining continuous dialogue with academic communities can provide several distinct advantages:

Knowledge Accessibility: Informal engagement allows organisations to access current academic thinking without the overhead of formal partnership agreements. This includes staying current with emerging research, understanding theoretical frameworks, and gaining exposure to innovative methodologies.

Flexible Application: Without the constraints of formal collaboration structures, organisations can adopt and adapt academic insights based on specific needs and contexts. This flexibility enables rapid experimentation and learning while focusing on business objectives.

Cultural Enhancement: Regular interactions with academic communities help foster a culture of inquiry and innovation within corporate settings. This cultural change facilitates a focus on long-term strategic planning by addressing immediate operational demands. Although an inquisitive and curiosity-driven culture may be the norm in certain corporate areas like R&D and strategic divisions, it is relatively rare in more operational departments, as they often have restricted connections with academic circles and limited time for strategic thinking.

2.1 Collaboration Framework: synthesis of formal and informal approaches

Our experience and observation have led to the development of a comprehensive framework that illustrates how informal approaches to academic-industry collaboration can complement organisational operation and strategies. This framework, summarised in Table 1, depicts a structured way to understand the impact of continuous informal collaboration.

Table 1. Collaboration Framework: Informal Academic-Industry Collaboration

Aspect	**Informal Engagement**	**Organisational Impact**
Knowledge Exchange	Regular dialogue, ongoing conversations	Enhanced organisational learning capability
Timeline	Continuous, fluid interaction	Improved adaptability to change
Resource Commitment	Minimal additional resources, integrated with existing activities	Optimised resource utilization
Innovation Process	Rapid experimentation and adaptation	Accelerated innovation capability
Risk Management	Flexible adaptation and quick course correction	Enhanced risk resilience
Outcome Measurement	Qualitative assessment and practical validation	More nuanced performance understanding
Cultural Impact	Broad organisational influence	Sustained organisational transformation
Knowledge Retention	Informal networks and shared understanding	Improved organisational memory

By combining industrial experience with academic practices, the visiting lecturer tighten the bridge between theoretical learning and industrial application application, offering students with practical examples. At the same time, inquiring and curious students, and unconstrained conversations with academic colleagues triggered additional opportunities for long-term and strategic thinking. This experience facilitated the exploration of existing technologies that are not yet in the market but are expected to become available soon, as well as the identification and anticipation of future challenges. By leveraging this safe academic setting, the collaboration provided a unique space to assess new service opportunities and challenges, enriching both academic and industry perspectives.

2.2 Roadmapping as an example of integration

In the process of building a digital roadmap for people services, the *visiting* experience provided a supportive environment to craft a consistent, robust, yet flexible, and innovative approach to roadmapping. Specifically, the dual engagement between academia and industry enabled a dynamic exchange of ideas and methodologies, enriching the roadmap development process able at combine theoretical and practical insights.
Roadmapping is an intriguing task due to its complex nature, which needs balance between prioritisation, focus, and perspective. It is a structured way to bring the future into the present and the present into the future. It aligns future changes and organisational decisions and actions, via strong method and flexibility, required to generate consensus and strength. The dual role of rapidly synthesizing and gathering knowledge in the roadmapping process, aimed at navigating future uncertainties and identifying as well as reducing risks of failure, has become a successful strategic instrument [4].

Because of the multilayered nature of the roadmapping tool, the informal academic collaboration has been extremely valuable especially in relation to the three core dimensions of roadmapping:

Strategic Alignment: Developing a digital-services roadmap needs careful balance between short-term operational needs and long-term strategic objectives. The academic way of working encourages broader thinking, helping to maintain focus on the mid-term and long-term objectives while effectively addressing business operation requirements.
In an operations-focused division, the task of roadmapping necessitates frequent adjustments in focus and close cooperation with other departments to guarantee that strategic alignment incorporates all operational solutions. Hence, effectively and successfully managing the skill of zooming in and out proves to be challenging.

Referring to the Collaboration Framework described above (see Table 1), Strategic Alignment benefits significantly from the interplay of three key elements:

- Knowledge Exchange: Continuous dialogue and collaboration between academia and industry introduce new perspectives, enhancing understanding of emerging trends and strategic implications.
- Innovation Process: Engaging with innovative methodologies and academic insights fosters creative approaches to solving complex challenges, ensuring that the roadmap is both forward-thinking and practical.
- Cultural Impact: Incorporating academic practices into the organisational mindset cultivates a culture of curiosity, adaptability, and long-term thinking, which is essential for sustaining alignment across varying priorities.

Stakeholders Engagement: A successful roadmap must integrate input from multiple stakeholders across the organisation. Informal academic engagement provides access to frameworks and methodologies that support the management of this complexity, ensuring stakeholder contributions are effectively integrated while maintaining a clear and practical focus.

Stakeholder engagement involves gathering input and actively leveraging two critical components of the Collaboration Framework described in Table 1: resource commitment and knowledge retention.

- Resource Commitment: A well-defined engagement process ensures that stakeholders are not just contributors but active participants, committing the necessary time, effort, and resources to the success of the roadmap. Informal academic interactions serve as a reminder of a work approach that cultivated a spirit of cooperation and collective ownership.
- Knowledge Retention: Engaging stakeholders efficiently promotes the preservation and integration of knowledge. By incorporating multiple viewpoints early and consistently, the roadmap benefits from a collective repository of expertise.

Innovation Opportunity: Regular exposure to academic thought facilitates the identification and evaluation innovative and effective approaches to service development and technology adoption. This ongoing dialogue fosters creative problem solving, helping to anticipate future challenges and opportunities while ensuring that solutions remain grounded in business relevance.

Innovation Opportunity stands out as the dimension that most effectively benefits from informal collaboration with the academic world. This is because informal engagements uniquely leverage key aspects described in Table 1:

- Timeline: Implies the ability to adapt to changes, allowing the organisation to address new opportunities and incorporate them into the roadmap
- Innovation Process: As mentioned above, involves fostering experimentation and adaptation.
- Risk Management: Academic input provides a neutral ground for validating ideas, refining concepts, and anticipating challenges.

- Outcome Measurement: Consistent with Risk Management, an unbiased collaboration with academia assesses the potential impact and metrics of digital service roadmap beyond traditional quantitative methodology.

This experience and the integrated approach to the roadmapping exercise highlights how continuous academic engagement enhances the development of strategic and practical thinking, valuable for the development of digital roadmaps, providing a unique perspective that supports both strategic and operational goals.

2.3 Collaboration Framework: enriching practice through academic engagement

The visiting experience have highlighted how multiple collaboration channels of academic engagement can enrich corporate practices in developing digital service. These channels and their impacts - teaching interactions, thesis supervision, and ongoing dialogue with academic practitioners - unfold as follows.

Teaching interactions are an essential channel for knowledge exchange and innovation. Through this type of engagement, student questions challenge established assumptions, bringing fresh perspectives to corporate practices. The corporate benefits are substantial: teams gain deeper reflection on their established practices and exposure to emerging thinking patterns. At the same time, this form of collaboration provides non-research insights to academia. Hence, the joint effort between industry and academia results in improved innovation capacity in both areas.

Thesis supervision facilitates a structured deep dive into specific challenges, allowing for methodologically rigorous research on practical problems. Industries often miss such opportunities, thus benefiting from evidence-based solutions and targeted explorations, whereas academic institutions receive real-world cases and validation for theoretical frameworks. This collaboration fosters a robust environment for joint knowledge creation.

Academic dialogue facilitates continuous exchange of ideas and integration between theory and practice. Corporate teams gain strategic perspective and innovation inspiration, while academic practitioners can benefit from direct insight into implementation challenges and practical research validation. This ongoing dialogue creates a sustained learning ecosystem that benefits both communities.

The synergy between these channels creates a rich environment for knowledge exchange and innovation. While each channel has distinct characteristics and benefits, their combination provides a comprehensive framework for academic-industry collaboration that enhances both theoretical understanding and practical application specifically in digital service development.

2.4 The power of reflection: the academic time as a Knowledge Transfer mechanism

A critical aspect of this experience is that the academic environment and specifically the lectures serve as the main knowledge-sharing mechanism. Unlike the constant delivery pressure of operational industry settings, the time and space needed for teaching and academic engagement created an unforeseen opportunity for deep reflection, moreover, trigger by external and neutral point of view. The space for reflection manifested itself in three key moments. Pre-class preparation forced the articulation of tacit corporate knowledge, as preparing teaching materials required implicit understanding explicit and transferable through concrete examples. During class interactions, student questions and discussions triggered real-time reflection on established practices, often revealing assumptions and biases embedded in existing approaches and inviting immediate reconsideration of prepared examples. The post-class debrief allowed for immediate reflection on classroom insights, enabling rapid identification of concepts applicable within the corporate context. Furthermore, the intervals between classes offered a precious space for processing and connecting academic theories with operational challenges, a cognitive luxury rarely available to intertwine into day-to-day corporate operations focused on constant delivery.

This form of reflection-based mechanism addressed a fundamental challenge in knowledge transfer: the lack of cognitive space in operational environments. Although many standard collaboration programmes may need immediate action over reflection, this model embedded reflections within the academic role itself, creating a whole new format of practice.

3 Building effective collaboration between industry and academia

Our experience in the implementation of multichannel academic engagement offers key insights to enhance the development of digital services through academic collaboration. Organisations must foster a culture that values academic perspectives and continuous learning, supported by regular insight-sharing sessions such as lunch-and-learn or short seminars. While informal engagement requires fewer resources than formal partnerships, organisations should allocate time for teaching engagements and academic experiences to benefit from regular discussion forums to build professional networks and thrive on mutual value creation through guest speaking, case studies, and research access. Regular communication channels maintain engagement and identify new opportunities to build integrated pathways.

Finally, impact evaluation merges qualitative insights with quantitative metrics to monitor innovation and efficiency, addressing common challenges like time constraints through pilot projects. Organisations should consider academia as the main source for identifying new technologies, especially with respect to digital collaboration, data analysis, and academic-industry ecosystems.

4 Conclusion

This case study demonstrates how maintaining ongoing dialogue between academia and industry can enhance - among other - corporate digital transformation initiatives, even without formal and extended collaborative structures. Our experience suggests that regular engagement with academic perspectives helps organisations strengthen a strategic focus while meeting operational needs.
The experience is a demonstration that the most powerful knowledge-sharing mechanism is not necessarily the formal organised structure, but rather the academic environment itself. The visiting lecturing role created a unique temporal and reflection space where the pressures of constant delivery was temporarily suspended. Moreover, in this case, ongoing academic engagement created sustained opportunities for reflection that gradually and persistently permeate the organisational activity. The success of this approach is linked to three core factors:

1. Protected time: the organisation willingness to allocate time for academic activities recognising the value beyond immediate deliverables
2. Academic legitimacy: the formal teaching role provided a justification for deep and lateral reflections.
3. Dual identity: The visiting lecturer maintained both academic and corporate identities, enabling translation between reflective and operational modes.

Following the experience discussed in these pages, future research is going to explore additional models for academia-industry collaboration that can accommodate practical constraints of business operations while maximising the benefits of academic insights in a formalised framework that builds on the experience of the more informal collaboration. We will investigate different forms of knowledge exchange, develop frameworks for operational strategy, and identify factors that contribute to long-term successful engagement between academia and industry.

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