

Collaborative practices under normative paradoxes at open innovation hubs

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Abstract

Collaborative spaces, such as innovation hubs, spark in big cities and metropolitan areas worldwide with no consensus or reflection, despite criticism and paradoxical tensions emerging from the heterogeneous community that orbits such spaces. Entrepreneurs, investors, executives, and academic researchers from diverse disciplines bring their own experiences and expectations enacting a constellation of open innovation practices with a dynamic full of nuances and influences. In this article, we analyze **how members of an open innovation hub interpret the paradoxes that emerge when facing normative dimensions in place**. Our preliminary results suggest that the effects of paradoxes reinforce current practices, but eventually, actors based on them transform or develop new practices. The very typical normative dimensions for open innovation spaces, such as reciprocity and openness, combined with an immersive experience of members may contribute to practices being continually reshaped.

Introduction

Practice-based studies have contributed to expanding the understanding of how social practices interact with space and time in several contexts (e.g. Nicolini, 2007; Jarzabkowski, Bednarek, & Spee, 2015; Hydle, 2015; Beyes & Holt, 2020). Open innovation spaces have proliferated worldwide - hubs, fablabs, hackathons initiatives, and others have increased over 32-times from 2007 to 2013 (Mitev et al., 2019). In such initiatives, entrepreneurs, investors, executives from large corporations, mentors, and researchers come together to foster innovation, enacting 'new ways of working' (de Vaujany & Aroles, 2019). Our analysis responds to the call for research on collaborative practices (Alpenberg & Scarbrough, 2021) to observe how practices in such spaces are shaped by paradoxical tensions that emerge in the crossroads of collaborative context.

Innovation hubs are social spaces to support collaboration, innovation, and entrepreneurship, by offering collaborative services such as networking-oriented social events, pitch nights, and mentoring sessions, organized around stages of startups including pre-incubation, incubation, and acceleration. In such spaces, practices are designed to host and foster "a community of passionate and entrepreneurial people" (Jiménez & Zheng, 2021) to collaborate. The distinctive feature is that practices do not occur within an organization, but they take place across organizations. This renders this study distinctive from previous research on collaborative practices in social spaces. Our approach considers space and practices intertwined, similar to Cnossen & Bencherki (2018), therefore space is not a container of practices, but rather, the space may change as practices change.

Collaborative practices in such spaces aim to break down the typical barriers to innovation within traditional organizational structures, providing a fertile ground for members to explore fresh ideas, create new connections, and enhance collaboration. Although the specific value proposition of collaborative spaces can change, the overall essence is to combine "heterogeneous practices and resources within a multifaceted context of collaborative actions" (Russo-Spena et al., 2019). The high intensity network mode and the proximity of the community in these spaces foster not only the "collision" of a heterogeneous group of people but also the collision of practices.

Innovation hubs potentially present paradoxes in place, due to their **cross border setting, emerging practices, different business values, and heterogeneous participants**. Previous studies have already explored new paradoxes and contradictions emerging in such spaces, such as surveillance and control (de Vaujany et al, 2021), gender constraints (Hirst and Schwabenland, 2018), and multiple agendas (Phillips, Lawrence, & Hardy, 2000). From a practice-based perspective, scholars have focused on identifying and describing the practices within a hub, while placing less focus on the mechanisms at play, the arising paradoxes, and whether and how these are resolved.

Similarly, previous studies on practices already demonstrate the tensions emerging from professionals or business partners due to normative content carried by practices (Bejerot and Hasselbladh, 2013), and their effects, such as reducing collaboration (Alpenberg & Scarbrough; 2021), and affecting power dynamics in organizations (Orlikowski, 2000). Scholars have also explored sustainability-related values (fairness, transparency, accountability, and responsibility) embedded into green or inclusive practices, as Corporate Social Responsibility (CSR) (Haal et al, 2012; Duarte, 2010) or goals oriented toward UN's Sustainable Development Goals (Kaufmann & Danner-Schroeder, 2022).

Following the practice turn in the organizational and innovation agenda (Yström and Agogué, 2020), we propose a practice-based approach to understand **innovation hubs as a continuous, ongoing, and collective constellation of practices** (Russo-Spena et al, 2019), facing paradoxes. We are particularly interested in the role of the normative dimensions of social practices (ethical, societal, and cultural standards) over the perception of paradoxes in collaborative spaces. The set of practices enacted by members (coming from different organizations) in innovation hubs share normative dimensions (as purpose, priorities, beliefs about social responsibility, etc) and specific language (vocabulary, jargon, anecdotes), despite their own interests and expectations. Our analysis aims to explore "*how the actors face the potential paradoxes emerging from the **normative dimension of practices** in open innovation hubs?*".

In this paper, we observed the case of an open innovation hub in São Paulo city, Brazil. The hub, named 'Cubo', was founded by the largest retail bank in Brazil, and currently it is one of Latin America's largest innovation hubs. Our qualitative approach relies on direct observation in

the last two years and interviews with the hub staff, entrepreneurs, consultants and investors. We identified ten main practices promoted and sustained by the hub members. Each practice carries out normative dimensions and includes a set of tools, terminology, performance metrics, investment roadmaps, etc. We also identified paradoxes that emerge in the spaces creating tensions in members, for example, the conflict between tangible vs intangible results and long vs short terms.

Our preliminary results indicate that the perception of members about the paradox may constrain how they interact with current practices, depending on the normative dimension in question. For instance, members immersed in the hub organization embedded in typical open and collaborative practices may better reconcile the paradoxes with competitive practices from the typical cooperative organizations orbiting the hub. Normative dimensions, practices and paradoxes are interwoven elements, affecting and being affected by the dynamic context of innovation hubs.

Literature review

Practice theory has been applied to many innovation contexts, including digital technology adoption (Ciriello et al, 2019; Orlikowski, 2002), co-creation processes (Russo-Spena & Mele, 2012) and performance measurement of innovation (Joachim Breuning et al, 2014). Such contexts, in general, do not focus on collaboration as a central value. Some exceptions are knowledge sharing in the ecosystem (Russo-Spena et al, 2016) and the network of entrepreneurs and startups (Mitev et al. 2019; Yacoub and Haefliger 2024).

The normative dimension of practices in the innovation context is a complex and multifaceted concept, often neglected for two reasons. The first is that conventional managerial approaches do not properly incorporate the actual work of innovators, nor the set of ethical standards, values, and principles permeated in the innovation processes (Dougherty, 2017). The proposal to replace innovation with innovating recognizes this practice as a “continuous, ongoing, and collective accomplishment of something people do and enact” (Ciriello et al, 2019), moving the focus from “the actors and outcome to the process and contexts” (Russo-Spena & Mele, 2012).

The second reason is the heterogeneity of practices in such spaces, influenced not only by a multiplicity of actors but also by new market trends, such as sustainability goals and green business. Each member of a hub brings their own set of values, logics and expectations. Few studies have focused on practices permeating these environments, and when they have, they have not explored the paradoxes present due to the tensions that emerge from these differences (Russo-Spena et al; 2019). On the other hand, the normative dimensions of innovation practices are not even explicit, and few researchers are dedicated to covering this agenda seriously, as in the case of innovation systems for transformations towards sustainability (Schlaile et al, 2017).

The complexity of the normative dimensions intensifies the paradoxical tension of practices in collaborative spaces. The proximity of members, intense network mode and pro-collaboration mindset favor the collision of practices with a broad range of effects. Some tensions can lead to a more diverse team, favoring creativity and innovation (Delley & Reinmoeller, 2018). On the other hand, the spatial concentration of innovative activity can lead to a lack of diversity and inclusivity (Asheim, 2006) or create gender constraints (Hirst and Schwabenland, 2018).

A paradox in a context of practice is not an external "thing" that demands a response, but is constructed within actors' activities and practices moment by moment (Jarzabkowski et al, 2018). The notion that innovation practices are rife with paradoxes, both stimulating and hindering progress, is well established in the organizational literature (Smith et al, 2017). One example is the increasing engagement of corporations in open innovation agreements. While the cooperation may foster innovation and reduce competition in the short term, it can also compromise competitive advantage in the long term and create intellectual property issues (Smith et al, 2017; Stefan et al, 2022).

Most scholars approach innovation paradoxes with a tradeoff logic, imposing a rationality perspective to respond to the tensions based on the achievement of certain conditions. This perspective minimizes the fact that paradoxes are "conceptually distinct and contradictory, yet also mutually enabling". In this sense, we follow the call for a non-dual approach to paradoxes exploring the dynamic poles and their interdependencies (Farjoun, 2010; Smith et al, 2017).

Innovation hub is one archetype of collaborative spaces. The empirical literature on practices in innovation hubs explores a diverse range of questions, but rarely the essence of the enacted practices. Our systematic review of 24 articles published after 2001, identified practices of collaborative spaces, such as collaboration, networking, partnering, culture making, policy development, knowledge-creating and sharing, prototyping, `spacing`, innovating, leading/managing, and impact accounting. The variety of practices emerge from different types of collaborative spaces, regarding their main value proposition (e.g accelerate business, prototyping, advocacy). In the literature, the term collaborative spaces has been used interchangeably with other concepts, such as coworking spaces (Gandini, 2015; Garrett et al., 2017; Merkel, 2015), open organizing (on Hippel and von Krogh 2003), in-between-spaces (Susanne Ollila & Yström, 2020), collaborative communities (Mitev et al., 2019), third-place (Oldenburg, 1989) and interstitial spaces (Yacoub and Haefliger, 2024). We define here the collaborative space as a localized space that offers open access to resources, and which is characterized by a culture of openness and collaboration concerning knowledge sharing, skills and tools (Boutillier et al, 2020; de Vaujany and Aroles, 2019).

Scholars have explained collaboration in these spaces as a result of the beneficial sense of belonging to a community disregarding the practices that shape these values and the softer features of collaborative innovation. More empirical studies are needed to deepen understanding of practice-based learning environments, innovation ecosystems, and the role of space in shaping - and being shaped by practices (Yacoub and Haefliger 2024; Cirella and Murphy, 2022). Additionally, these studies have been limited to an European perspective (more than 70% of authors in collaborative spaces are affiliated with European universities), reinforcing a call to incorporate global south perspectives to understand practices in diverse contexts (Ciaramella et al, 2018; Jimenez & Zheng, 2021).

Exploring the micro-foundations of practices, especially in collaborative innovation as a complex organizational model, is crucial to understand the nuanced dynamics and potential leverage points for change (Yström & Agogué, 2020). Additionally, uncovering the role of dynamics paradoxes and normative dimensions sheds light on how social practices are being continuously constructed and reshaped in complex organizational contexts.

Methodology

In this paper, we observed the case of an open innovation hub, named Cubo, in São Paulo City, Brazil. The hub, which is one of the prestigious cases among the similar concepts of hub in Latin America. In 2023, startups at Cubo raised about R\$2.8 billion in venture deals, and attracted 50 foreign startups to its community. The organization was founded in 2015 by the largest retail bank in Brazil and a venture capital firm, RedPoint Ventures. Cubo is structured as a non-profit organization with a business model that depends on annual fees paid by members. Despite this source of revenue, the hub is not self-sustained and depends financially on its main sponsor, the retail bank.

The organization and its collaborative spaces operate on 14 floors in a building with a modern glass facade, located at the financial market neighborhood populated by banks, investment funds and consulting services. It offers coworking rooms, modern auditoriums, coffee shops and collaborative services. From the 6th to the 12th floors the available space is industry-oriented (e.g. retail, education, agriculture, finance, health services), meaning that technology-based businesses related to that industry will co-habit that floor and interact. In general, the floor layout is very flexible to adapt to the intermittent presence of members and new dynamics proposed by the community.

Currently, about 200 startups inhabit the hub distributed throughout the industry-oriented floors. Large corporations, venture capital funds, startup accelerators, professional consultants and mentors, and government agencies orbit the hub. As a traditional innovation hub, it offers a range of services and resources to support startups at different stages of development, including mentorship, networking events, educational programs, and access to funding opportunities. They promote events and activities, such as hackathons, workshops, and pitch competitions, to facilitate knowledge sharing and collaboration among members of the startup community. Additionally, its partners provide startups with access to potential customers, partners, and distribution channels.

Despite the fact that the value proposition of innovation hubs have been questioned by practitioners and scholars (O'Hare et al, 2018; Friederici, 2016), Cubo has kept its relevant position and attracted new members over the years. The original founding purpose of the

organization Cubo is ‘to create a smooth path for corporations to engage with startups’, therefore, reducing the tensions that this interaction usually faces. The prominence of its main sponsor in the financial market exerted a relevant imprint. Over the years, the Cubo leaders implemented different initiatives to meet community expectations, including the ‘Cubo Seal’, to celebrate and recognize startups, corporations, investors and partners that create connections and generate business for the community of members. Currently the strong community and the sophisticated facilities provided also contribute to the prominence of the space.

Our qualitative approach relies on direct observation over the last two years and interviews the community staff, entrepreneurs, consultants and investors. One of the authors has a long history of more than five years of collaboration with this hub. During this period, she acted as member, participant in internal events and advisory on projects related to the structure and strategy of the hub. Although this experience informs the research about the context and history of practices within the hub, the empirical data of this paper was restricted to that collected between February and April 2024.

Data was collected from a variety of sources including nine in-depth interviews with key players, ethnography observation during the visits to the hub, archival materials and information available in official web pages. All the interviews (Table 1 represents typical connections in the hub) were recorded, transcribed and codified in terms of the practices, paradoxes, potential resolutions for paradoxes and normative dimensions mentioned by participants. The interviewees consented to the fact that interviews were being recorded and the information used anonymously, not allowing the identification of whoever declared it.

We selected interviews to represent the relevant connections and practices in the hub (Table 1 represents typical connections in the hub). The recorded and transcribed interviews follow an open protocol, mainly focusing on practices and how mediating tools play a role in the process. During the interviews we identified whether the respondents played a role as boundary spanner, connecting and translating needs, objectives and expectations related to the ongoing practices. Finally we analyze whether the language used, including vocabulary and linguistic objects (Navis & Glynn, 2011; Phillips & Oswick, 2012) and discourses (Christensen et al, 2015) brings the normative dimension of practices and paradoxes in place.

Table 1 - List of interviews

Interviewer	Company	Role	Member status	Member Type	Date	Mode
E001	Cubo	Community Leader	Current	Staff	15-Feb	Remote
E002	Chemical	CMO	Current	Investor	20-Feb	Remote
E003	Social	Founder and CEO	Former Cubo	Startup	21-Feb	Remote
E004	Consulting	Partner and CEO	Current	Corporate	05-Mar	Remote
E005	Chemical	Coordinator	Current	Corporate	14-Mar	Remote
E006	Agro	Manager	Current	Corporate	18-Mar	Remote
E007	Technology	CEO	Current	Startup	22-Mar	In person
E008	Venture Fund	Founder	Current	Investor	29-Mar	Remote
E009	Technology	Founder and CEO	Current	Startup	01-Abr	Remote

We identified ten main practices promoted and sustained by the hub community, originally designed for traditional for-profit enterprises, but applicable to all startups inhabiting the hub (Table 2). Each practice includes a set of tools, terminology, performance metrics, investment roadmaps, and so on.

Table 2 - Main practices identified in the hub

Practice	Description	Example in the Cubo context
Partnering	Establishing collaborative relationships between individuals or organizations to achieve shared objectives, leverage mutual strengths, and pool resources.	Co-development of a new solution between a startup and a corporate member.
Knowledge sharing	Exchanging information, insights, and experiences among individuals or groups, often aimed at fostering learning and innovation.	Entrepreneur-focused workshop promoted by investors to clarify the process of funding raising.
Venturing capital	Funding to startups and small businesses, in initial stages, with high growth potential and high risk level.	Company activities of analyse and invest in startups within the hub.
Sensing and scanning	Exploring the external environment to identify emerging trends, opportunities, and threats that could impact an organization or industry.	Deal-flow of an investor looking for potential investments
Matchmaking	Identifying and aligning the strengths and offerings of a startup with the specific challenges and needs of a company, facilitating a strategic partnership that aims to solve problems and add value to both entities.	Open challenge of a company for a specific pain point

Networking	Engaging in social interactions to develop and maintain relationships that can be beneficial for sharing information and opportunities.	Events and happy hours created to promote connections among hub members.
Prototyping / testing	Iterative process of creating an early model or sample of a product to test a concept or process, allowing for modifications based on feedback before final production.	Workshop promoted to prototype solutions in a maker room with different technologies, such as 3D printing and modelling softwares.
Reputation	Building and maintaining a positive image and credibility within the startup community and among potential investors, partners, and customers.	Public recognition events or awards given to startups for outstanding achievements or innovations within the hub.
Co-working	Sharing a common workspace among multiple startups and entrepreneurs to foster collaboration, resource sharing, and community building.	Providing flexible office spaces and communal areas where startups can work, hold meetings, and interact with each other on a daily basis.

Understanding how members try to manage the paradoxes and the context where they emerge suggests that practices can be reinforced, constrain or created by paradoxes. Following a non-dual logic perspective, we analyzed how the set of practices can be affected by paradoxes. This is not a zero-one classification, as practices can be affected differently depending on the intensity and context of the paradoxes, the level of immersion of the member in the space and how they couple with the normative dimension in question. This analysis contributes to understanding the social dynamic of practices, enacted by a bunch of paradoxical tensions permeated into the space.

Social roles and typical frameworks in the hub

In a typical innovation space, different actors interact and collaborate to develop new solutions, share knowledge and accelerate business, in a clear materialization of the innovation concept. The main types of actors in the Cubo community are: entrepreneurs, corporates, investors, partners (in general, service providers) and the hub staff.

Entrepreneurs usually opt to set their administrative operation in innovation hubs, adopting the space as their primary offices. It is convenient because they have access to a vibrant network with potential clients (corporates) and funding (investor) for a competitive rate.

On the other hand, corporations see an innovation hub as an outpost for your innovation practice, an antenna capable of capturing trends and connections, which can unfold

into partnerships and businesses, and an environment of learning and acculturation for your employees. The frequency and model of representation of the corporation at the hub varies greatly, while some dedicate a person as a focal point who stays at the hub full-time, others adopt a model of sporadic presence.

Partners, generally consultancy service providers or media agencies, look for an environment in these spaces to capture new leads and generate business. In the case of investors, proximity to the startup community is relevant for access to deal flow and continuous contact with founders.

The team that manages the hub is generally lean and has capabilities for member management, event promotion, communication, as well as specific projects, such as training or startup acceleration.

In addition to these motivations, it has become increasingly common for members to seek to join innovation environments as a way of legitimization and recognition in the market, in order to be perceived as an innovative brand.

We can segregate these actors into two main groups, according to the level of immersion they have in the hub's practices, the practice promoters who inhabit the space in a more permanent and immersed way, such as founders of startups that are based in the space for a certain period of time, and the leaders of the space and communities. This group is more immersed in collaboration practices. A second group, the practice users, orbiting space, such as venture capitalists and focal point of organizations. These actors “pass through” the space, and other similar spaces, but are immersed in the logics and practices of their original organizations.

There are cases of entrepreneurs who do not have in the hub a primary office and frequent a series of different hubs, according to the need and convenience. Despite the fact that those spaces can share a similar logic in terms of social norms, they can also be quite different from others. There are also cases of corporate teams that completely move to the hub, predominantly living the logic of these spaces. The distinction between orchestrators and users is not about the role played by each actor, but about the level of proximity and immersiveness in practice.

Promoters of practices follow frameworks and language of the space, implicit in practices. For example, the practice of matchmaking has a specific language and framework that are disseminated, such as POCs (proofs of concept), and pitch dynamics. The practice of

venturing encompasses a different set of jargons, such as MVPs (minimum viable products), pivot strategies, and scalability metrics. These frameworks and terminologies are essential for participants to communicate effectively and to align their efforts within the ecosystem.

Users of practices are members who pass through the space but follow the logic of their home organizations. They generally attend events and projects, participate in guided tours and occasionally engage in hub programs. At first, these members seem to be aware of the multiple possibilities of the environment, but they tend to have difficulty reconciling the different organizational logics of where they are.

A typical approach studying the level of interaction of the executive of a corporation between its parent organization and an innovation hub has been elaborated in previous studies (Decreton et al, 2021), which attributed this balance to the success and failure of an innovation outpost. In this case, we expanded the reflection to all members of the community that interacts with the space, bringing as a central concept the level of immersion in practice.

The level of immersion in practice happens independent of the role of the member. As the number of innovation hubs increases, entrepreneurs who often lived in a single innovation hub start to frequent multiple spaces, with different logics, affecting the depth with which they interact in each one. On the other hand, the increase in corporate investment in innovation has led organizations to dedicate increasingly larger teams to collaborative spaces, allowing these professionals to experience the logic of these spaces rather than the mother organization. In other words, promoters or users of practices may be associated with different roles in the complex context of collaborative spaces. The low sense of collaboration of some hub members was highlighted by an interviewee:

"Every founder in Silicon Valley got rich because of that ecosystem, so they go back to the ecosystem to feed the next generation. Here I don't see that much. Here I think the guys say "I joined the VC-track [fundraising] and you guys you, and I'm leaving, okay? Bye." (Current member - practices promoter)

The normative aspects and paradoxes

The most cited practices by the interviewees are partnering (establishing collaborative relationships between individuals or organizations to achieve shared objectives, leverage mutual strengths, and pool resources) and networking (engaging in social interactions to develop and

maintain relationships that can be beneficial for sharing information and opportunities). The hub is considered by interviewees as a ‘place where other innovation practices happen’, including prototyping, investment, matchmaking and co-working. Despite the fact that the hub is a more recent organization compared to most of the companies orbiting the space, Cubo was also associated with reputation building for businesses inhabiting the space, transferring its legitimacy to their members.

Members suggest that practices are fluid as they are enacted by different actors, every day, with different organizational background contexts. Practices evolve continuously not only to accommodate different needs but also to delineate hubbing as a practice by itself. Therefore, the hub seems to operate as a dynamic, practice-driven community where the ontology of innovation is expected to be continuously enacted, knowledge is collaboratively produced and shared, and the praxis of innovation is deeply embedded in the hub's shared values and operations.

Our interviews showed that such practices embrace the following normative dimensions (Table 3 - Normative dimensions present in practices). First, (i) expectations on behavior: collaboration, reciprocity, openness, proximity, presence, and (ii) expectations on how to operate: informality, serendipity, future-oriented mindset, transparency, testing.

Table 3 - Normative dimensions present in practices

Normative dimensions	Evidence from interviews
Collaboration	<p>The impression I have is that if I go to the Cubo, knock on the door and ask someone for help.</p> <p>So being here means that you may not even be proactive, but you need to be willing.</p> <p>...a culture of openness and collaboration very present.</p>
Reciprocity	<p>When demanded, they are predisposed to collaborate and, consequently, they generate in each other the minimum reciprocity.</p> <p>Because I want everyone to welcome me.</p>
Openness	<p>choosing the Cubo precisely because of the diversity that exists in the Cubo.</p> <p>Thus, people are predisposed to give their time, they are accessible, and it seems that these two elements are correlated, people are open and, consequently, they are demanded.</p>

	<p>And I think that this openness generates a more pleasant environment and the more pleasant environments, they are naturally more collaborative.</p>
Proximity	<p>What I see in common here at Cubo is, first, that the fact that you are here, develop a relationship with the founder, it makes the sensitivity with the founder, the proximity, the understanding of the solution with the founder stronger.</p> <p>sitting down and having a coffee is different</p> <p>If you don't move, it doesn't happen.</p>
Presence	<p>for you to actually have the advantage of being here, you need to be.</p> <p>The way of working here, or mine, personally, is to be here every day.</p>
Informality	<p>A degree of informality as well, which I think is part of it.</p> <p>The main value proposition for startups is based on commercial access (to customers), serendipity, in addition to the basics of infrastructure and co-working.</p>
Serendipity	<p>By the way, before he became a customer, at the time he was a possible customer, in an elevator chat, they understood our pain, we continued the conversation and we closed the deal three months later.</p> <p>I had a client that I was at the event, I met at the event and that generated business.</p> <p>But what I notice is that every time I go, even though I have an intention of what to do, new ideas end up appearing.</p> <p>it also has these stellar alignments of everything at the right time.</p>
Future-oriented mindset	<p>We filled the auditorium, took the leaders of the cooperatives, put the startup on the table and discussed the future.</p> <p>They have this role that is almost to bring a freshness, but seriously, to very rigid structures.</p>
Transparency	<p>I think it's an attribute of clarity of purpose and transparency.</p> <p>Cubo is a fertile soil for qualified entrepreneurs.</p>
Testing	<p>We started in 2018, our maturity as a startup, we were still trying to discover our product market fit.</p>

The normative dimensions are brought about by the practices that each actor is most immersed in. Actors who act as promoters of practices in open innovation environments live collaborative practices and build a sense of responsibility on them, working to reconcile

paradoxes and evolve these practices. Naturally, they are more open to collaborative and reciprocal behavior. They operate more informally, and have a long-term perspective.

Users of practices attend the space experiencing the long-term cost goals of their home organizations, seeking to extract value to take back to their corporation, dedicating less time to deepening relationships and generating reciprocity or collaborating.

Even actors who have a long-term perspective, such as venture capitalists, may partially experience the normative dimensions of the space. By treating companies as portfolio units, they begin to have collaborative behavior with the companies that are selected for the portfolio, but not necessarily with the entire environment.

During the interviews at least ten contradictions emerged as potential paradoxes currently in the collaborative space. They are: Exploration vs. Exploitation, Stability vs. change, Short-term vs. long-term, Alignment vs. flexibility, Control vs. autonomy, Individual vs. collective, Cooperation vs. competition, Profit vs. Purpose, Face-to-face vs virtual, Diversity x homogeneity, Tangible vs intangible results.

We segregated the potential paradoxes by how they interact with practices. The following text organizes the practices that were reinforced by paradoxes, constrained and eventually created by paradoxes.

Paradoxes reinforcing practices

The core practice of partnering is continuously reinforced by the balance between exploration vs. exploitation. This paradox challenges the community of the hub to commit in practices that address both incremental innovation and transformational innovation. One successful example is the matchmaking programs to connect startups with pre-defined challenges announced by companies, in a platform.

"a platform where anyone who is a member can launch a challenge."(Current member - practices promoter)

"Also to put more than 15 matchmakings happening at the same time, simultaneously."(Current member - practices promoter)

The control vs. autonomy paradox also contributes to partnering practice. Members are autonomous (and encouraged) to interact and identify new opportunities to cooperate and develop projects together. However, in most cases they need to comply with a set of standard controls from their own organization, such as terms of confidentiality, risk analysis and contract approvals. This can help make collaborative projects more robust and increase the chances of success based on best practices. It is important to highlight, however, that excess of control can also bring more bureaucracy and hinder the development of innovative projects.

Paradoxes constraining practices

The networking practices were the most mentioned by members, suggesting their relevance in terms of meaning. Networking in the hub's case means formal and informal activities, such as events, workshops, meetings, introductions and small talks. The networking practice is being affected by the paradoxes of short term vs long term results. This contradiction has put pressure on the outputs of the connection, as in the case of tangible vs intangible results. Members are less willing and open to receive new requests and consider them. One member highlighted being more focused on getting straight to the point with the solutions that interest their company

"What used to have a bigger appetite, now the appetite is 1000% focused on the commercial." (Current member - practices promoter)

This paradox is amplified by the expectation of reciprocity, usual in this kind of context, as exposed by a member

"When demanded, they are predisposed to collaborate and, consequently, they generate in each other the minimum reciprocity." (Current member - practices promoter)

Another member expresses the discomfort of reconciling the expectation of high-intensity networking with individual demands:

"You know that day when you leave exhausted. The social battery downstairs..."(Current member - practices user)

"I can't go to Cubo every day why? Because the Cubo is extremely dynamic."(Current member - practices promoter)

Again, members with a high level of presence in the hub see this tension positively, designing a routine that accommodates the dynamic of the space. Less frequent members question the power of networking. The impact on networking willingness also affects other practices, such as partnering. The ability to co-develop valuable projects in partnership with the hub community depends on the connections and trust created between them. At least three factors impact networking in the hub: First, the lack of alignment between the focal point in the hub and the organization represented, compromising the availability and quality of the network. One corporate member highlighted the inability of the focal point, as a representative of the corporation, to articulate the network.

"And there's an operational incapacity to actually be present here, or to establish bridges like the mothership." (Current member - practices promoter)

"The guys put him here, he doesn't have a very clear mandate." (Current member - practices promoter)

"At the executive level, understanding the value of being there in the ecosystem, and not only there, extrapolating a little from the Cubo is, which will reflect in the Cubo later, it is: how important it is for the company to invest and innovate" (Current member - practices promoter)

Secondly, the lack of alignment between the members, for example the corporate and startup, about the objectives of that connection and expectations of each side.

"On the startup's side there is a feeling of being over-demanded without the other side knowing what it wants, going to a limit where it feels it is wasting time and, consequently, has gone beyond collaboration because there does not seem to be effectiveness in an eventual interest." (Current member - practices promoter)

"As time goes by and the results don't come, it is because you don't even know which ones are being expected."(Current member - practices promoter)

Finally, a **perception of competition** within the community, compromising the willingness to connect and share. As one interviewee mention:

"So I think that these choices of cooperation and competition need to be well managed here by structures like this, otherwise they will create a lack of definition of what their role is and impact the adhesion of the actors who are important here. Second, the relationship with the corporation within a founder hub is almost predatory." (Current member - practices promoter)

Individual vs collective can hinder all the collaborative practices and undermine the value of innovation hubs. A investor member highlighted:

"I think some corporations make a very big mistake when they enter hubs, innovation strategy, ecosystems. That they enter the ecosystem thinking that they want to be taken away." (Current member - practices promoter)

This behavior was also questioned by a hub staff, about members that came to the hub to stay isolated:

"I want to be in the Cubo to build a room, and stay there in my own little world. Don't call me because I don't want to connect"(Current member - practices promoter)

This behavior is a contradiction to the give-back culture present in the innovation ecosystem, where members cultivate a sense of reciprocity with those who supported them at the beginning. It is emphasized by a member:

"the logic of giveback, which goes like this: every founder in Silicon Valley got rich because of that ecosystem, so they go back to the ecosystem to feed the next generation.

Here I don't see that much. Here I think the gang says "I joined the VC-track [fundraising] and you guys supported me, and I'm leaving, okay? Bye." (Current member - practices promoter)

The balance between the individual objectives and the sense of collectivity is not trivial. A member suggests that this ability is not generalized within the community:

"But at the same time, one must have the maturity to separate things. First is: what to bring to the table? Second is: what is my strategic goal, my path to building this business?"(Current member - practices promoter)

Paradoxes enacting or transming practices

Unexpectedly, some tension from paradoxes raises the opportunity for leaders and members to propose and play new practices. In the words of a frequent member, "the hubs have become these meeting points" where the central practice is to allow people to work together.

"From the beginning, the very logic of the CUBO's CNPJ has been based on a co-working dynamic."(Current member - practices promoter)

However, some members are questioning this purpose in the face of paradoxes, for example the tensions between tangible vs intangible results. One member looked uncomfortable asking the hub staff about the tangible results of being there:

*"Now what else can you, as Cubo, help me prove? What are the metrics you have?".
(Current member - practices user)*

This member argues that the intangible effects of being in a co-working space, such as brand exposure and networking, are not enough. Other members classified the hub environment as

"not always with rational, very well defined, with very well-established metrics."(Current member - practices user)

Although this perception does not have a negative character in itself, it highlights the challenge of aligning expectations about the presence in a collaborative innovation space like Cubo. Tensions arising from the expectation of tangible and short-term results tend to demand new and more objective and measurable practices from the hub focused on generating clear results.

Members with a high level of immersion tended to see the tension of paradoxes as an opportunity to create and reshape the practices, assuming a sense of assuming a role of influence and responsibility. Members who attend the space occasionally position themselves more as users of the practices and adopt a more critical stance in relation to the tensions and the practices.

An example of new practice is the creation of reputation through a seal. The idea of Cubo Seal is to recognize startups, corporations, investors and partners that created connections and generate business opportunities for the hub community. The seal acts as a ranking with measurable criteria for each category of member, which looks very appreciated by members:

"So, this year we even won an award, a Cubo seal of engagement, we were very happy for that, because we really can make this whole wheel work" (Current member - practices promoter)

"So there's the Cubo Seal ceremony [member recognition awards program], where I got two" (Current member - practices promoter)

The seal was mentioned by members with a high level of immersion in the space, such as founders of startups who have set up their main office in Cubo. This practice is very legitimate within the most immersed subgroup of the community. For those who go to the hub for a specific event or even who use the hub as a secondary workspace, this practice seems less relevant.

The tensions from the short term vs long term results are also perceived affecting the business model of the hub. Despite the fact that the hub is promoting innovation, its business model is quite traditional: charge a membership fee from members in exchange for a set of

considerations. From a member's perspective, it compromises the ability of the hub to orchestrate practices beyond the traditional logic of business.

"So I think the dynamics are a little bit linked to that, because the business model of the hubs themselves, it's traditional. In the sense of, it needs to be compensated for sponsorship, it needs to sell a program. So just like that, the monetization remains the same." (Former member - practices user)

Cubo proposes an exploitation-oriented approach, focusing on real and pre-existing problems from members, but new practices are emerging to balance the exploration expectation. The practice of sensing and scanning was rarely mentioned and appears more recent in the hub and connects with the paradox between exploration vs. exploitation. The essence of this practice is to help companies explore the external environment to identify emerging trends, opportunities, and threats. While exploitation focuses on maximizing existing opportunities, exploration is about embracing the unknown and seeking out new possibilities.

"We do this scanning and it already takes these demands directly." (Current member - practices user)

"what's out there that we can add to our products?" (Current member - practices user)

It's possible to note criticism from members about exploration and more imaginative practices. Exploitation-oriented practices can be justified by the need to measure and short term results, reinforced by traditional logic of annual incentives within organizations.

The sense of openness and transparency in Cubo allows members to express continuously their perceptions and expectations, provoking reflection about the review of the practices that happens there in a dynamic of hearing & engaging, where the horizontal and non-hierarchical configuration of members enable them to act as change agents:

"We systematically have a practice of listening to and engaging all actors in the ecosystem." (Current member - practices promoter)

This perception is associated with members with a long history of interaction with the community. Although the openness is declared element of hub culture, it cannot be taken for granted, as it depends on the hub leadership and the diversity promoted inside the hub, as highlighted by another member

"I see that in the previous management of the Cubo, although it was an open platform, the partners were a little more limited." (Current member - practices promoter)

Discussions

As mentioned by Smith et al (2017), the influence of paradoxes over innovation practices, in some situations, does not follow a rational and dual logic. In our perspective, it is the case in innovation hubs. Practices, paradoxes and normative dimensions can be understood as intertwined elements in a collaborative space, whose roles affect and are affected by each other.

Despite being purposefully created with innovative practices that encourage innovation, hubs carry with them many paradoxical tensions that vary in a way as dynamic as the occupation of the space itself. Heterogeneous communities of collaborative spaces bring together members who have different levels of interaction. While some recognize that space as their main work environment, others visit it occasionally. The different levels of immersion affect how these members perceive the common paradoxes of these spaces.

Practice promoters, when living the normative dimensions that permeate the environment, tend to better reconcile paradoxes and promote the hub's practices in a long-term perspective. On the other hand, practice users understand that approach as a transactional relationship and tend to adopt a less collaborative stance.

The practices in the hubs are orchestrated by their administrators, who define criteria, tools and logic for the community. But a set of values linked to openness and transparency can facilitate the natural evolution of these practices based on the experiences of members. The smaller the restrictions placed by the administration, the more likely it is that self-regulation of practices will be driven by the members themselves.

The evolution of practices based on the perception of paradoxes happens in three different ways: new practices are created, others are reinforced and some are inhibited. It is not

possible to correlate a paradox with a single effect, because depending on the context, the member's perception and the normative dimension in question, the same paradox can have a positive or negative effect on practices.

Conclusion

Our study explored how practices are affected by a dynamic between paradoxes and normative dimensions. Our preliminary analysis gives a first explanation for how these dynamics occur based on an ambiguous logic where the two opposing poles are affected by a normative dimension, generating paradoxical tensions that sometimes favor and sometimes inhibit innovation. The analysis suggests that the normative dimensions of practice play a relevant role in the continuous process of practice building, especially for frequent members, who act as promoters of the practice.

This study contributes to practices in several key ways. Firstly, we expand the theoretical field by demonstrating how practices, paradoxes and normative dimensions can be understood as intertwined elements in a collaborative space, whose roles affect and are affected mutually. Secondly, we emphasized the very relevant role of normative dimensions. The hub community influences the composition and sedimentation of the norm, but it is unquestionable that there is an asymmetry of power that means that the hub administrator's norm has a significant and direct influence on the practices that take place around that space, in a broad sense. The level of immersion of the members in the space also affects how they couple with the normative dimensions and how paradoxes are perceived. Finally, the empirical ground adopted helps to reinforce the practical essence of practice.

Beyond theoretical and academic contributions, this study highlights the practical implications of understanding and responding to the typical paradoxes that emerge in collaborative spaces. By demonstrating the kind of impact that these tensions can have over practices, the research offers valuable insights for innovation experts, public policies, entrepreneurs and other stakeholders seeking to develop more effective strategies in collaborative spaces.

Our analysis did not cover the influence of physical elements and the layout of the space on the practices. We also did not explore the strategies adopted by the community to address the paradoxes in the hub.

Future studies can further encompass the emotional and cognitive effects of paradoxes and how the dynamic of practice affects the outputs of innovation, for example during the creativity process. Additionally, creative quantitative measures and analyses are encouraged to test the broader set of qualitative findings in the field, dealing with the risk of over-rationalization or polarized analysis.

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