Academic and Practice-Oriented Literature Review: Building and Sustaining Virtual Communities of Practice

2023
Introduction

This paper explores the concept of Communities of Practice (CsoP), with a specific focus on Virtual Communities of Practice (VCsoP), and potential strategies to build and sustain them. To this end, it first presents the defining characteristics of CsoP and a series of challenges related to their establishment and perpetuation, and sets out five stages of a CoP’s life and development cycle. This sets the stage for an analysis of ways to give rise to enduring, inclusive CsoP through the formulation of twelve enabling factors for building and sustaining CsoP, based on a thorough desk review of academic literature and more practice-oriented work on CsoP.

Recent technological progress has significantly broadened the scope of and improved the interaction and exchange among people in the digital space. Many organisations and enterprises have therefore come to embrace VCsoP as a viable alternative to traditional physical CsoP, a trend that has been intensified by the Covid-19 pandemic. While some of the opportunities and challenges that physical CsoP and VCsoP encounter are unique to their respective modes of operation, research indicates that building and sustaining either type of CoP requires overcoming a series of common obstacles. The lessons learned on how to build and sustain CsoP presented in this paper therefore apply to both physical and virtual CsoP.

1 Catana et al. 2021; Wenger-Trayner et al. 2022.
Definition and Challenges

Etienne Wenger-Trayner coined the term “Communities of Practice” (CsoP). He defines CsoP as groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly. CsoP go beyond a website or a database where users can retrieve information on the topic that a CoP covers. Rather, CsoP foster the interaction between a diverse range of users and seek to nurture sustained learning partnerships among them.

A CoP’s domain serves as the key source of identity for its members, e.g., peacebuilding, health, or education. Members of CsoP are practitioners and share a passion for, a strong commitment to, and knowledge about their respective domain. The frequent, interactive learning experience within a CoP revolves around members sharing their practical experiences and knowledge about the domain and collaborating in exploring solutions to domain-related problems and challenges.

People have different motivations to join and actively contribute to CsoP. The rationales include personal benefits such as status and career advancement or boosting of self-esteem; community related considerations such as sharing knowledge as a means of establishing ties with others; and normative considerations such as shared values and vision. However, there are a number of challenges that complicate the collaboration and reciprocal learning among CoP members, namely:

- CsoP are voluntary, which makes it difficult to keep members engaged.
- Generating value that attracts members.
- Creating a sense of identification among members with the CoP.
- Lack of trust among those members who do not know each other before joining a CoP and are therefore hesitant to engage and share knowledge, at least in the beginning.
- Conflicts revolving around controversial issues or cultural differences among members.
- Striking the right balance between giving members room to shape a CoP and steering the development of the latter.

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2 Wenger-Trayner and Wenger-Trayner 2015.
3 See e.g., Sibbald et al. 2022; Wenger-Trayner and Wenger-Trayner 2015.
4 Wenger and Snyder 2000; Wenger-Trayner et al. 2022, p. 66.
5 Ardichvili 2008, p. 545.
• Individual barriers to knowledge sharing such as fear of criticism or doubts regarding the value that the CoP creates.

• Lack of clarity on procedural mechanisms to share knowledge, often related to security and confidentiality concerns.

• Lack of technological skills to fully contribute to CoP activities in the digital space.

• Lack of interaction between a CoP and the broader context in which it is operating.

Five Stages of Development

Wenger-Trayner and colleagues identify five stages that jointly delineate a CoP’s life cycle, namely:7

• Coalescing, which is about finding the value of the CoP and members of the COP getting to know each other and start building trust.

• Establishing, which is about getting organised, agreeing on a shared learning agenda, and creating the framework for frequent interaction.

• Maturing, which is about building an identity, attracting more members, and developing competence as a CoP.

• Evolving, which is about a CoP becoming the steward of the domain in which it is rooted. This concerns efforts to maintain a CoP’s relevance, add more rigor to its working procedures, and strive for unmatched quality of the learning experience.

• Dispersing, which can materialise due to a CoP merging with other communities or the decision to become an informal network. The main driver of dispersion is that the CoP has lost its usefulness.

It is important to highlight, however, that CsoP do not develop in a linear fashion. Some CsoP rather confine themselves to occasional meetings or asynchronous interactions only and do not seek to incrementally scale up their scope and activities.8 Maturing is therefore not the overarching objective that all CsoP pursue.

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7 Wenger-Trayner et al. 2022, p. 89.
8 Ibid., p. 109.
FIVE STAGES OF DEVELOPMENT

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Building and Sustaining VCsoP – 12 Enabling Factors

Few systematic evaluations of CsoP exist. Practitioners and academics have repeatedly highlighted that there is no one size fits all approach to making CsoP work. This is chiefly because each CoP is unique: they all pursue different purposes, visions, and activities, and employ different governance systems. Existing research has therefore refrained from formulating recommendations for how to build and sustain impactful CsoP. It rather points to factors that are conducive to CsoP creating value for their members by addressing their needs and aspirations and thereby attracting more individuals, which allows them to persist.

Twelve of these enabling factors for building and sustaining a CoP are presented below.

Enabling Factor 1: Relevant Domain and Clear Purpose

A relevant domain and a clear purpose are key to keep a CoP interesting, relevant, and exciting for its members. Individuals are only willing to share their knowledge and actively contribute to a CoP when they have a strong interest in the domain that the CoP covers. In fact, Wenger-Trayner and co-authors mention an explicit commitment to creating a regime of competence and striving for excellence in the domain in which it is rooted as a principal potential strategy for a CoP to attract members.

Identifying and tapping into already existing informal networks of practitioners is also part of defining an appealing domain and purpose. The web of relationships that exists among practitioners in informal, domain-related networks provides a strong basis for the establishment and maintenance of CsoP. Such informal networks are rich in domain-related knowledge and can offer huge potential to develop into a virtual space of learning. Inviting practitioners to collectively work on defining how the CoP will be different to other already existing communities is a promising approach to identifying a relevant domain and formulating a powerful purpose.

9 See Shaw et al. 2022; Sibbald et al. 2022.
10 Bourhis and Duba 2005; Wenger-Trayner et al. 2022, pp. 64 and 111.
11 Wenger-Trayner et al. 2022, p. 64.
13 Wenger-Trayner et al. 2022, p. 115.
14 Wenger and Snyder 2000.
16 USAID 2013.
Enabling Factor 2: Value Creation

Membership in and contributions to CsoP are voluntary. CsoP will therefore lose existing members and struggle to find newcomers unless they create value for their members.\(^ {17}\) This renders intense, continuous discussions about how to maximise a CoP’s value a key exercise for the CoP leadership (see Enabling Factor 5). These discussions are ideally inclusive and also feature ordinary CoP members who are best-placed to share testimony about what they want to get out of a CoP in order to be motivated to continuously engage in it.

Enabling Factor 3: Accessible Technology

There exists a myriad of tools to facilitate a smooth and convenient interaction between members of a VCoP. However, in order for a VCoP to enhance its inclusivity, it is important to keep technology simple and rely on online tools that do not require advanced technological skills. Researchers and practitioners have also concluded that providing technological support is an important entry point to building up and sustaining VCoP.\(^ {18}\) An introductory webinar and/or a handbook can help members to familiarise themselves with the IT infrastructure that the VCoP uses. Moreover, establishing an online helpdesk could help to address members’ IT-related challenges to contribute to the VCoP on an individual basis.\(^ {19}\)

Enabling Factor 4: Onboarding Mechanism

A strong mechanism for onboarding new members is important to build and sustain a CoP. CoP leaders (see factor 6 below) or members that greet the newcomers as part of annual or biannual welcome conferences held online create a welcoming atmosphere, which increases newcomers’ motivation to contribute. A “buddy” system that assigns newcomers to longer-standing members has been identified as conducive to the former’s quick and sustainable integration into a CoP.\(^ {20}\) As part of the induction package, longer-standing members can inform the newcomers about the history, vision, and objectives of the CoP as well as existing tools and ways to contribute to the CoP. This close individual support ensures that new members derive personal benefit from the CoP from the first day of their engagement.

Enabling Factor 5: Governance System

CsoP are mostly self-organising and aim to maximise the opportunities for members to shape the CoP’s working procedures, design, and activities. Although CsoP tend to avoid power hierarchies, efficient governance structures can be an

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17 Wenger et al. 2002.
19 Stepanek et al. 2013.
important asset for their development.\textsuperscript{21} This is particularly true in the early development phases of a CoP when questions about its ideal size, objectives, purpose, and domain are most pressing.\textsuperscript{22} Governance committees such as steering or advisory boards that encompass sponsors, leaders, and other stakeholders of the CoP have proved beneficial in this regard.\textsuperscript{23}

Creating a rhythm of work for the CoP is a core element of every CoP governance system.\textsuperscript{24} Those CsoP that have managed to engage their members, while not overwhelming them with too many activities and information have been able to sustain their activities. Regular patterns like recurrent discussion events, dialogues with experts, and periodic meetings are potential pillars of a working rhythm that CoP members find convenient and appealing.\textsuperscript{25}

Previous CsoP have also embraced small topic teams as a way to govern the activities of their community.\textsuperscript{26} These topic teams have been established to share information and review resources on specific themes related to the domain of the CoP. The working output produced by the various topic teams has subsequently been made accessible to all CoP members. More generally, practitioners have stressed the importance of giving CoP members the opportunity to contribute to discussions about the shape of the governance system.

**Enabling Factor 6: Strong Leadership**

Several researchers and practitioners have identified a strong, dedicated, and skilled leadership that cares about members’ needs and aspirations as a key factor for establishing and maintaining vibrant CsoP.\textsuperscript{27} The selection of its leadership is therefore of great importance for every CoP. CoP leaders work to increase the CoP’s visibility as well as streamline and guide its activities. As such, they play various roles, including:\textsuperscript{28}

- **Organiser:** leaders are responsible for managing the interactions within the CoP and between CoP members and outsiders. This role also includes capturing user experience, evaluating the functioning of the CoP, greeting newcomers, and publicly acknowledging the achievements of individual CoP members.

\begin{itemize}
  \item \textsuperscript{21} Catana et al. 2021, p. 43.
  \item \textsuperscript{22} Sibbald et al. 2022.
  \item \textsuperscript{23} Catana et al. 2021, p. 46.
  \item \textsuperscript{24} Wenger et al. 2002; Wenger-Trayner et al. 2022, p. 104; USAID 2013.
  \item \textsuperscript{25} Wenger-Trayner et al. 2022, p. 104.
  \item \textsuperscript{26} Stepanek et al. 2013; USAID 2013.
  \item \textsuperscript{27} Bourhis and Duba 2005; Catana et al. 2021, pp. 47 and 55; Kimball and Ladd 2004; Sibbald et al. 2022; Stepanek et al. 2013; Wenger-Trayner et al. 2022, pp. 125-130.
  \item \textsuperscript{28} Catana et al. 2021, p. 70.
\end{itemize}
• **Convener and analyst:** this role involves building trust and strengthening relationships among CoP members, identifying and implementing effective mechanisms to engage CoP members, and more generally, creating a conducive environment for CoP members to regularly convene. This may also include preparing and moderating meetings, activities, events, and discussions, ensuring that they all align with the CoP’s domain and purpose. Avoiding the formation of cliques within a CoP also falls within CoP leaders’ realm of responsibility.

• **Synthesiser and knowledge manager:** leaders are also responsible for summarising the content of the exchanges within the CoP and transforming it into accessible knowledge outputs for all CoP members.

Wenger-Trayner and colleagues even note that a leadership-driven CoP guarantying tight organisational structures and efficiency might incentivise practitioners to join. On the other hand, leader-centric communities threaten to minimise the participation and influence of members. This in turn could undermine the prospects of a CoP enduring as many members resist dominant voices in CoP and therefore decide to withdraw from a CoP early on.

As a general observation, Wenger-Trayner and colleagues therefore conclude that leaders should never try to create their personal dream version of a CoP. CoP are supposed to grow in a natural and participatory way, giving their members ownership of the process and elevating them as co-creators. It is therefore crucial to render the designing and maintenance process of a COP as inclusive as possible. This could include sharing summaries of CoP leader sessions within the full CoP membership. Other CoP leaders have also discussed the implementation of their respective leadership tasks with a subgroup of members who thereby gained access to the leadership work.

Two final comments regarding the leadership of COP are important to mention. Firstly, existing evidence indicates that it is useful to work with several leaders who take responsibility for the various leadership tasks; a diversified leadership mitigates a CoP’s dependence on individual leaders, which strengthens its resilience and prospects to first become and then remain vibrant. Secondly, it is important for leaders to receive external support in order to deliver on their duties. This includes a clear mandate for and description of the activities that CoP leaders are expected to undertake.

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29 Wenger-Trayner et al. 2022, p. 126.
31 Ardichvili 2008; Greely 2020; UNESCAP 2020; Wenger-Trayner et al. 2022, p. 64.
32 Ibid.
33 Wenger-Trayner et al. 2022, pp. 85-86.
34 Catana et al. 2021, p. 70.
Enabling Factor 7: Levels of Participation

There is considerable variation when it comes to the level of engagement among members of different CsoP, given the significant level of variance within respective CsoP practitioners’ ideas and capacity to contribute to the activities and exchanges of their CoP. While each CoP retains unique characteristics, existing work on CsoP has given rise to a typology of actors within a CoP, which has been progressively adapted and refined. It currently includes the following groups of actors:\(^{35}\)

- **Core group**: this is the heart of any CoP. Members of the core group actively participate in and coordinate all activities and events that are organised within the CoP and kick off and lead discussions about potential adaptations of the CoP’s working processes. While members of the core group only account for 10-15% of a CoP’s membership, they are the principal driver of CoP development and hence all efforts to sustain a CoP. Periodic changes in the composition of the core group are welcome as this prevents the formation of a “core group clique”.\(^{36}\)

- **Active group**: these are members who participate regularly, but less frequently in CoP activities and exchanges than core group members. However, they actively contribute to developing a CoP’s shared vision, purpose, and future activities.

- **Participating members**: actors in this group occasionally comment on contributions that their fellow members post or present, particularly when they are personally interested in the topic discussed. Otherwise, they largely remain passive.

- **Peripheral group**: this is where the majority of COP members are concentrated. Members of the peripheral group barely contribute to exchanges, discussions, interaction, or joint projects on knowledge production among core and active members. Individual members have different reasons for remaining passive, including a lack of self-confidence, a lack of motivation, a lack of capacity, or fear of criticism.\(^{37}\) However, peripheral members still extract valuable insights from the interactions they observe.

In order to sustain CsoP, it is important to embrace the different forms of participation outlined above and give members the opportunity to occupy the role of their choosing in the CoP. This also includes the option for members to increase or reduce their level of engagement in the CoP. The constant opportunity for all

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36 Wenger-Trayner et al. 2022, p. 125.
37 Ardichvili 2008; Wenger et al. 2002.
members to actively contribute to the activities of the CoP, including strategic planning exercises, makes them feel respected as full members. This increases their level of satisfaction with the CoP and motivates them to stay engaged.\textsuperscript{38}

**Enabling Factor 8: Draft a Common Vision, Norms, and Engagement Plans**

CsoP grow in an organic manner and pass through different stages in their development (as outlined above). The previous factors have already underlined the importance of defining a clear domain, purpose, and menu of activities for the VCoP to attract dedicated and continuously engaged practitioners. Written documents such as a VCoP charter or a community engagement roadmap generate multiple benefits in this regard. Firstly, they allow members to agree on clear written rules and norms that they see as vital for the VCoP. This nurtures a strong sense of identification among members and mitigates ambiguity with regard to the purpose and activities of the VCoP. Moreover, it helps to prevent internal conflicts about what the VCoP stands for and the objectives it pursues. Secondly, capturing the purpose and vision of the VCoP in writing helps to create excitement among existing members and potential newcomers for whom it is easier to grasp what the VCoP sets out to achieve. Thirdly, some researchers emphasise that defining norms on the frequency of contributions or the different roles in the VCoP can help to manage the expectations of existing and prospective members.\textsuperscript{39} This knowledge can help to facilitate prospective members’ decision about whether they want to join the VCoP. Finally, a common vision, norms, and activity plans provide clear guidelines for the evaluation of a VCoP’s functioning and inform efforts to adjust the implemented design and working procedures (see below).\textsuperscript{40}

**Enabling Factor 9: Interaction Formats**

Researchers and practitioners have concluded that working with various interaction formats helps to keep CoP members engaged.\textsuperscript{41} Existing work highlights several different discussion formats that can be implemented both online and offline, strengthen reciprocal learning within the community, and create value for COP members. A non-exhaustive list of these discussion formats encompasses:\textsuperscript{42}

- Information exchange or interest groups, which allow members to exchange and jointly work on one particular topic.

\textsuperscript{38} Wenger et al. 2002.
\textsuperscript{39} Kimball and Ladd 2004, p. 206.
\textsuperscript{40} Catana et al. 2021, p. 92.
\textsuperscript{41} Ardichvili 2008, p. 551; Stepanek et al. 2013.
\textsuperscript{42} USAID 2013; Wenger-Trayner et al. 2022, pp. 149 and 169-179.
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- Action learning groups or case clinics, which give members a platform to share their experiences about how to solve a specific problem that one or more fellow CoP members are encountering.

- Hot topic conversation, which concerns topics that affect all COP members.

- Fishbowl, which is a format for managing discussion within a large group, focusing facilitation on a core group discussion that can either be closed or open (i.e., with rotating participation from the broader audience).

- Role plays.

Whatever meeting and discussion formats are ultimately chosen for the respective CoP, the fact of conducting regular community gatherings in virtual spaces is important to strengthen the relationships among members.\(^{43}\) Gatherings that are organised around important events such as the launch of a CoP or a milestone reached are particularly effective in strengthening feelings of identification among the CoP’s membership.

Most importantly, existing work stresses the importance of giving space for private, bilateral, backchannel meetings among members to nurture strong relationships of trust.\(^{44}\) Limiting the scope to only organising public events within a CoP while neglecting the facilitation of bilateral encounters between members therefore constrains a CoP’s vibrancy.\(^{45}\) This is mainly because individual members tend to feel more comfortable and safer sharing their opinion and knowledge in open discussions within the CoP after they have interacted with fellow members in private backchannel discussions.

**Enabling Factor 10: Links between Meetings and Activities**

Members are more likely to stay engaged when they see a connection between the different activities that the CoP undertakes. Learning loops of the discussions had or contributions made within the framework of the CoP are a significant help in this regard.\(^{46}\) Summaries of past events and storytelling around them help to create links between the different activities and help members understand how they relate to their personal work and the activities of the CoP. Moreover, any effort to link the various meetings and activities that the CoP carries out will also help to build up the CoP’s collective institutional memory and put members in a position to apply the takeaways from CoP activities to their own work, both within and beyond the scope of the CoP.

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\(^{43}\) Catana et al. 2021, p. 64.


\(^{45}\) Wenger et al. 2002.

\(^{46}\) Wenger-Trayner et al. 2022, p. 111.
Enabling Factor 11: Exchange between Internal and External Actors of the CoP

Practitioners are most likely to join and actively contribute to VCsoP when they have the feeling that a VCoP can develop without any external interference. Outside perspectives are nevertheless important to incorporate throughout the development process as they help a VCoP to identify opportunities to make meaningful contributions to and stay updated on the domain.\(^{47}\) The exchange between VCoP members and outside experts as well as other VCsoP, networks, and platforms that operate in the same domain will therefore help a VCoP to increase and maintain its relevance. This is key to both attracting new members and keeping existing members engaged. Guest presentations, workshops and training sessions with external actors, and boundary engagements with other communities through informal encounters or more formalised joint projects are potential ways to engage with external actors.\(^{48}\)

Enabling Factor 12: Evaluation

Evaluating VCsoP is challenging. This is because VCsoP often do not aim to deliver a specific product or even a quantifiable kind of performance but rather strive to create value for their members. Traditional evaluation measures such as the number of participants, number of blog posts, or the number of meetings, or even classical M&E metrics and frameworks that seek to measure impact do not capture the value a VCoP generates for its members and are hence unable to fully assess its impact.\(^{49}\)

At the same time, self-awareness and self-reflection are core pillars of enduring VCsoP and help leaders to stay focused on serving members’ needs and aspirations.\(^{50}\) It is therefore important to monitor the activities of a VCoP, set up learning loops, and regularly reflect on the value generated for the members.\(^{51}\) Members play a critical role in the reflection process as they are often invited to use value creation stories, online workshops, interviews, or focus groups to share their personal insights about how they benefit from the VCoP in their daily work.\(^{52}\) An alternative evaluation method to measure value is to collect, categorise, and assess all artefacts that a VCoP has created, including documents, tools, and action plans.\(^{53}\)

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\(^{47}\) Wenger et al. 2002.
\(^{49}\) Wenger-Trayner et al. 2022, pp. 104-106.
\(^{50}\) Stepanek et al. 2013; Wenger-Trayner et al. 2022, p. 127.
\(^{51}\) Catana et al. 2021, p. 82; Wenger et al. 2002.
\(^{52}\) Catana et al. 2021, pp. 90-92.
\(^{53}\) Catana et al. 2021, p. 91; Wenger-Trayner et al. 2022, p. 216.
The various inputs provided by the members of a VCoP point to the strengths and weaknesses in the procedures of that VCoP. The aggregated knowledge can then be used to shape the learning agenda of the VCoP moving forward. If their feedback and personal experiences with the VCoP strongly informs initiatives to improve the functioning of the VCoP then it is more likely to motivate members to remain engaged.\(^{54}\)

\(^{54}\) Catana et al. 2021, p. 82.
BUILDING & SUSTAINING VCsoP
12 Enabling Factors

1. Relevant Domain and Clear Purpose
2. Value Creation
3. Accessible Technology
4. Onboarding Mechanism
5. Governance System
6. Strong Leadership
7. Levels of Participation
8. Draft a Common Vision, Norms, and Engagement Plans
9. Interaction Formats
10. Links Between Meetings and Activities
11. Exchange Between Internal and External Actors of the COP
12. Evaluation

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References


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