Facilitating communities of practice with causal mapping workshops

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Structured Abstract

Purpose – The purpose of this paper is to introduce a new workshop format concerned with the facilitation of Communities of Practice (CoPs). The introduced workshop format is based on a method of causal mapping, and it is aimed at helping the CoP members to understand better the possibilities of 'making most' of their community's potential, as well as identify and address the possible problems and challenges which the community may be facing.

Design/methodology/approach – Through theorizing, grounded in the literature on CoPs and causal mapping as well as personal experience with using causal mapping in a number of organisations, this paper contributes a new formalised way of facilitating CoPs using of causal mapping, a facilitated workshop that helps organisations to bring into action the process of 'thinking together', creating a sense of mutual engagement, shared repertoire, and joint enterprise that is at the very core of cultivating CoPs.

Originality/value – In this paper is introduced a formalised approach for facilitating CoPs with causal mapping. We contribute to both the literature on cultivating CoPs in organisations and the literature on causal mapping. The CoP literature is in great need of

formalised and practical approaches that appreciate the complexity of the CoP concept and the contextual sensitivity required for cultivating CoPs in practice.

Practical implications – The formalised CoP workshop facilitated by causal mapping we introduce in this paper offers a significant help for organisations in cultivating CoPs. More generally, this type of facilitation process can be very useful whenever thinking together matters.

Keywords – communities of practice, causal mapping, group decision support systems, knowledge management

Paper type – Conceptual paper

1   Introduction

The concept of communities of practice (CoPs) has become popular among practitioners and academia alike (Wenger, 2010). We follow the understanding of CoPs as groups of people who 'think together' regularly (Pyrko et al., 2017) in order to cope with everyday real-life problems or to improve themselves as practitioners (Wenger, 1998). The CoP concept portrays learning as entailing investment of identity which happens in the social context (Lave and Wenger, 1991) that is believed to benefit innovating as well as sharing and developing new knowledge (Borzillo and Kaminska-Labbé, 2011; Davenport, 2005; Pyrko et al., 2017). For these reasons CoPs have been traditionally regarded as being highly relevant to the field of Knowledge Management (Davenport and Prusak, 2000; Newell et al., 2002). Hence, many organizations are keen to operationalize the CoP concept, yet often find cultivating CoPs challenging (Harvey et al., 2013; Saint-Onge and Wallace, 2003; Swan et al., 2002).

The general principles for cultivating CoPs are fairly well developed, with many authors promoting the view that CoPs require direct managerial support to prosper, but at the same time, due to CoPs' organic and spontaneous nature, managers need to be careful not to impose too much control on CoPs as it may deprive the CoP members of the sense of ownership of their community, consequently leading to the community's demise (Harvey et al., 2013; McDermott and Archibald, 2010; Probst and Borzillo, 2008; Saint-Onge and Wallace, 2003; Thompson, 2005; Wenger et al., 2002; Wenger and Snyder, 2000). Nonetheless, at more specific 'action' level, the problem of facilitating CoPs remains under-researched, especially with respect to the tools and techniques which could be operationalized by practitioners with interest in developing CoPs.

Thus this paper contributes to the current understanding of facilitation of CoPs by introducing a design of a CoP workshop format which follows an established style of causal mapping (Bryson et al., 2014; Bryson et al., 2004). Causal mapping workshops have proved to be effective in improving productivity in group meetings, and in many

different settings such as strategy making or problem structuring (Ackermann and Eden, 2011a, 2011b). Therefore, it is expected that the CoP workshop format introduced in this paper will serve as a structured method for facilitating CoPs in organizations. Whereas our discussion at this point is conceptual, it is grounded in the extensive experience of researching CoPs in organizations, as well as in facilitating causal mapping workshops, and it aims to address the practical considerations, possible challenges, and opportunities which the introduced workshop format may entail.

This paper is structured as follows. First, the literature is reviewed with respect to cultivating CoPs and facilitating causal mapping workshops. Building on the synthesis of these literatures, a workshop format of facilitating CoPs is introduced, covering such aspects of the workshop as the preparation, the structuring of the workshop, and the expected results. The paper concludes with the discussion on how the suggested workshop format contributes to the practice of cultivating CoPs, and what future research may be help to embellish the presented ideas.

2 Communities of Practice

CoPs were initially conceptualised as a result of the attempts to explore alternative perspectives on learning than the traditional perspective which saw learning as simply information processing. From the CoP view, learning is an integral part of peoples' everyday lives and not something that they engage with only when they do their homework or revise for exams at the University (Lave and Wenger, 1991; Orr, 1996; Wenger, 1998). Along these lines, knowledge is not exclusively owned by the professional experts, but it is developed socially by all people as they inevitably 'think together' (Pyrko et al., 2017) how to do things which they care about or which are central to their lives and work. From this perspective, learning takes place in the context of idiosyncratic practice which is "a set frameworks, ideas, tools, information, styles, language, stories, and documents" that are developed gradually over time and therefore they provide the resource for individuals to draw on when they respond to day-to-day problems which they face (Wenger et al., 2002: 92). In this sense, practice is a history of learning, whilst learning is the driver of practice (Wenger, 1998).

Due to its insightful portrayal of learning, the CoP concept was quickly adopted into the organisational research and practice (Brown and Duguid, 1991; Brown and Duguid, 2001), and it helped to pave the way for the studies of practice-based view of organisational learning (Corradi et al., 2010; Currie and White, 2012; Gherardi, 2000; Gherardi et al., 1998; Nicolini and Meznar, 1995; Pyrko et al., 2017; Swan et al., 2002). As a result of the popularity of the CoP concept, the process of cultivating CoPs in organizations is relatively well covered in the literature (Harvey et al., 2013; McDermott and Archibald, 2010; Probst and Borzillo, 2008; Saint-Onge and Wallace, 2003; Wenger et al., 2002; Wenger and Snyder, 2000). It is typically considered that CoPs emerge and

develop organically, often across organisational boundaries, and therefore management can support them by providing space, time and resources, as well as encourage participation. The legitimization of CoPs in organizations can be justified by officially acknowledging CoPs' role in supporting strategic goals, however at the same time too much control can deprive CoP members of the sense of ownership with respect to their community, and effectively lead to the community's demise (Addicott et al., 2006; Harvey et al., 2013; Waring and Currie, 2009). Consequently, the managerial support for CoPs can be regarded as an uneasy balancing act in which management need to respect the spontaneous nature of learning happening in such communities, but at the same time find a suitable role for CoPs within the organisational context so that CoPs can benefit the organization and vice versa (Thompson, 2005).

As part of the facilitation of CoPs, a number of principles have been established which suggest that facilitators and coordinators of CoPs should try to build a core group of a CoP by connecting and engaging people who are *already* genuinely interested in the same problems or hot topics and who, at last with respect to some members, *already* have been engaging in conversations with regards to those problems of interest. At the same time, the core group needs to be enriched by less intensive forms of participation which forms the periphery of the core group, and so appropriate channels for peripheral participation, such as open events or peer mentoring roles, need to be introduced for a healthy CoP (Borzillo et al., 2011; McDermott, 1999; McDermott and Archibald, 2010; Probst and Borzillo, 2008; Pyrko et al., 2017; Saint-Onge and Wallace, 2003; Wenger et al., 2002).

Another principle of facilitating CoPs is to think intentionally about the three structural elements of CoPs (Wenger, 1998): *mutual engagement* (what people do together as part of practice), *joint enterprise* (a collection of problems and hot topics that they care about), and *shared repertoire* (the concepts and artifacts that they develop and subsequently use in practice). By addressing the possible problems and opportunities which CoP members may be experiencing with respect to these three CoP elements, it may be possible to help the CoP to make most of its potential (Wenger et al., 2002). Nevertheless, apart from a few tools and techniques such as the value creation framework for assessing CoPs' performance (Wenger et al., 2011), the topic of CoP facilitation 'in practice' remains under-researched and it not clear what the good ways are of, for example, helping the CoP to consider the structural elements of their community. Thus, the main argument in this paper is that qualitative causal mapping, which has proved effective in structuring groups' thinking, can offer a suitable tool and method for CoP facilitation.

3   Causal mapping

Causal mapping is a formal method following which a person's, or a group's, way of thinking about a problem in question is represented in the form of directed graphs (Huff, 1990; Jenkins and Johnson, 1997; Laukkanen, 1994). The produced graphs are causal maps consisting of short statements which are connected by unidirectional arrows signifying 'may lead to' relationship (Eden, 1992; Eden et al., 1992). Whilst there exist different styles of causal mapping, also including quantitative approaches (Hodgkinson and Clarkson, 2005), each causal mapping approach is governed by specified rules which allow the maps to be analyzed in a structured manner – and this means that causal maps are not merely 'word-and-arrow' diagrams (Ackermann et al., 2016). In this paper we follow the particular style of causal mapping which is concerned with developing new actionable options based on participants' individual contributions and, building on the analysis of networks of the identified options, prioritize where to focus the groups' efforts, resources, and emotions (Ackermann and Eden, 2011a; Bryson et al., 2014; Bryson et al., 2004). This style of causal mapping, therefore, can be promising for supporting CoPs in thinking about how they can, through their own actions, build a successful future for their community.

Causal mapping is a suitable method for working with groups of individuals, as it supports people in structuring, communicating, and negotiating their thinking about problems which they care about. This method has also proved to be effective, based on hundreds of interventions with organisations of different sizes and from a variety of industries, in helping groups of people to conduct productive meetings (Ackermann and Eden, 2005, 2011b; Ackermann et al., 2014). The style of casual mapping followed in this paper is supported by a dedicated software called *Decision Explorer* which can help manage the complexity of the gathered views from the group that can amount to hundreds of contributions. The software assists in making sense of the richness of data through such analytical functions as identifying most 'busy' (highly interlinked, and thus possibly significant) concepts, potent actions for achieving important objectives, or self-sustaining causal loops (Figure 1) which may be non-obvious and difficult to identify without the use of causal mapping, especially when supported by the software tool.
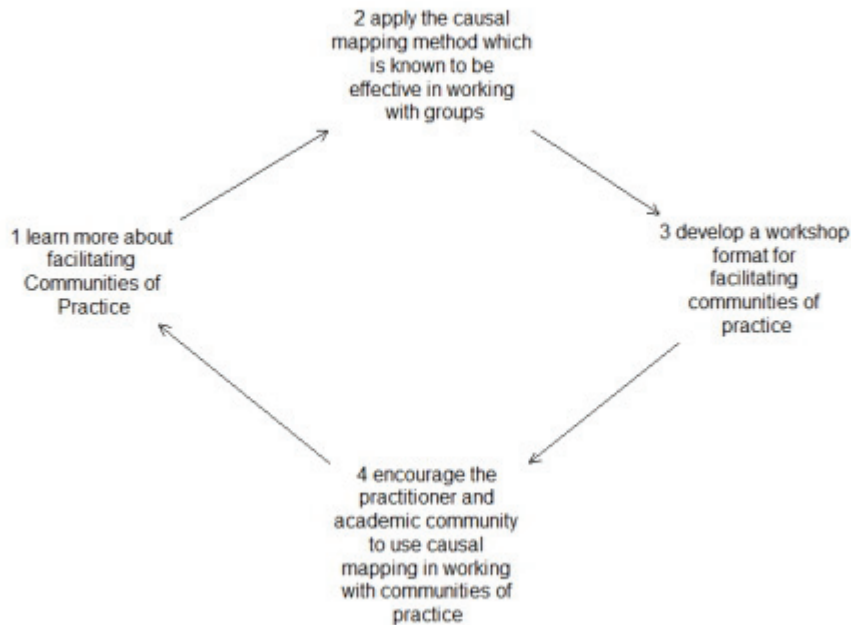
Figure 1: Example of a causal loop – why did we choose to prepare this paper?

Another advantage comes from the use of a group decision support system, such as *Group Explorer*, which allows the group to co-create the shared causal map at the same time and without interrupting one another as each participant types their contributions onto a projected screen from their assigned laptop. The use of a group support system thus brings the benefits of anonymity as well as procedural justice (Ackermann and Eden, 2011b; Tyler and Blader, 2003) as it improves the chances that everyone can share their views with others and so the 'silenced voices' can be heard (Ackermann et al., 2016). These advantages, coupled with the software support in prioritising key patterns in the gathered contributions, make the suggested method a promising solution for working with CoPs.

4   Communities of Practice facilitation forum

Having outlined a background to the CoP and causal mapping literatures which inform our argument, we now present a format of a workshop for facilitating CoPs. The introduced workshop format draws on a method of facilitating strategy making workshops developed by Ackermann and Eden (2011a), although it modifies it considerably for the needs of CoPs, and with respect to the CoP literature.

4.1 Aims of the workshop

The suggested workshop 'forum' is intended to support members of CoPs who intentionally recognise the existence of their community organised around a shared practice, and who wish to identify good ways of developing their CoP in the future - and so 'make most' of the CoP's potential. In contrast, is it is appreciated that most of CoPs are unrecognised as members may not even be aware that the group of people whom they engage with regularly could be seen as a CoP (Wenger et al., 2002). Another purpose of the workshop is to help identify possible challenges and limitations which affect the development of the CoP, and enable its members to consider how to overcome those problems. These purposes of the workshop are fulfilled by the application of a causal method which allows to gather a large number of views from the group in a relatively short period of time, and to identify the key themes and patterns in the collected contributions (Eden, 2004). By collectively co-creating a shared causal map which thereby serves as a boundary object (Carlile, 2002, 2004), participants are encouraged to devise an actionable plan for their CoP which they can subsequently implement.

4.2 Preparation for the workshop

The workshop should be ideally planned as a half-day or a full day session. As part of the preparation of the workshop, the facilitator should work with at least one of the CoP members, preferably the coordinator or a member of the core group of the community, in order to devise the starting question of the workshop and to understand better the nature of the CoP – such as who the members are, what their practice is, or what the shared problems of genuine interest are for the members. The starting question should be open-ended and fairly general to allow space for discussion, whilst narrow questions which could be answered as simply 'yes or no' should be avoided. A good point of reference for the starting question are the three structural elements (Wenger, 1998) of the CoPs (mutual engagement, shared enterprise, and joint repertoire) – the pre-workshop conversations with the members may help to understand better whether, depending on the circumstances, the starting question should be mainly concerned with one of these elements, or if it is better that the starting question does not focus on any of the elements specifically and it should be concerned with the community as a whole. For example, the starting question may say 'how can we improve our group's shared learning and make most of its potential in the next year?' A more focussed question might also be worded as 'what types of problems or hot-topics should we work with to make them more relevant and valuable?'

Also, the facilitator needs to book a spacious room that can easily accommodate the whole group. Research shows that CoPs tend to consist of around 15-50 members (Wenger et al., 2002), however the recommended number of participants for causal mapping workshops is around 7-10 participants (Ackermann and Eden, 2011a) and

therefore the facilitator may want to compose the list of participants in a way that it represents the different 'layers' of the CoP – such as the most regular core members, as well as the more peripheral members. If the causal mapping is to be supported by a causal mapping software or a group decision support system using which the participants will be adding their contributions, such as the available software described above, the room needs to be equipped with a good quality projector. Otherwise, two rows and several columns of flipchart paper need to be attached to a wall where participants will be adding their contributions written on post-it notes.

4.3 Structure of the workshop

At the beginning of the workshop, the facilitator explains the purpose of the workshop, and advises participants that they will be asked to address the pre-prepared starting question with brief, actionable statements (such as: 'have more regular time for face-to-face meetings', or 'assign a dedicated role for someone to record our good ideas'). Each participant is asked to use their own judgment and share their own views with respect to what matters and what should be acted upon by the group. All contributions are added on a shared map, either using the software, or following a round-robin approach with the use of post-it notes. In the first 30-40min the facilitator allows the group to keep adding their contributions until they reach about 40-80 statements in total. Subsequently, the group is asked to connect the contributions using unidirectional arrows signifying 'may lead to' relationships and thus form a causal map. Participants are encouraged to link any of the contributions on the map, and not only their own contributions.

The resulting co-created causal map helps to reveal what the busy areas (areas with high numbers of contributions), feedback loops, general aims for the group, or potent actions (actions which lead to, and so support, many promising chains of actions). These patterns allow the identification of clusters of priority areas for the CoP. The facilitator, with the help of the group, subsequently assigns a label to each cluster, and tries to determine which of the structural elements of the CoP (mutual engagement, joint enterprise, shared repertoire) the clusters seems to falling under. For example, a cluster describing the group's set of problems of interest may likely to fall under 'joint enterprise', whilst a cluster describing the products of the community's work may fall under 'shared enterprise'. In principle, the facilitator may want to ensure that all three structural elements of the CoP are covered during the workshop, and so if this is not the case they may start an additional 'gather' of ideas similar to the one ran at the beginning of the session. However, in sessions which are specifically focussed on a particular element of the CoP (for example 'joint enterprise'), it may not be needed to cover all three CoP elements.

Once the key priority clusters have been labelled and identified with the help of the group, the facilitator invites participants to inspect in more detail the most relevant

clusters – as there is likely to be enough time to cover only 2-4 clusters in good detail, the selection of clusters needs to be prioritised - for example by voting. For the rest of the session, the group validates the clusters, corrects them, and adds further contributions (both links and statements). The facilitator should confirm with the group that the identified clusters, depending on the CoP structural element(s) which they have been assign to, show an actionable plan for the CoP to help improve the community in the context of its respective structural element(s). For example, following the principles of cultivating CoPs (Saint-Onge and Wallace, 2003; Wenger, 1998; Wenger et al., 2002), as part of 'shared enterprise' the CoP ideally targets the *right people* with the *right sets of problems or hot topics*, as part of 'mutual engagement' members are able to think together regularly and open up new paths for less intensive participation, and as part of 'joint repertoire' they develop concepts, artefacts, and other objects which support their practice in a meaningful way as well as serve as the community's 'memory'. It must also be appreciated that the CoP structural elements are essentially *enacted* though the CoP members' actions in practice (Iverson and McPhee, 2008; Pyrko et al., 2017), rather than being imposed on the CoP in a 'top-down' manner', and therefore it is essential for the facilitator to ensure that participants are genuinely committed to the suggested actions on the co-created causal map.

4.4 Results of the workshop

At the end of the session, the causal map serves as an important deliverable which can be printed off and distributed to the participants if the causal mapping software is used (alternatively pictures of the map can be taken during the session). Furthermore, the facilitator writes a short report for the group in which the networks of key themes and clusters developed in the workshop are described. By attending to those key themes and clusters, the facilitator can summarise potent actions agreed by the group with regards to the three structural elements of the CoP, and thereby offer an action plan for the development of the community. Finally, the facilitator feeds the results back to the CoP, and the facilitator's presentation may be enriched by the illustrations of the relevant fragments of the causal map.

5   Conclusion

In this paper we have presented a new workshop format aimed at facilitating CoPs 'in practice'. This way we address the gap in the literature with respect to the practical tools and methods for working with CoP. Although at this stage our discussion is conceptual, it is grounded in the extensive experience of facilitating causal mapping workshop as well as in researching CoPs. The presented workshop format helps CoP members to think more intentionally about the three structural CoP elements which concern their community, as well as to explore one another's views – and this way the workshop offers

a structured framework for conducting productive conversations about CoPs which are informed by the CoP research and practice. It is recommended for future research to apply the introduced workshop format when working with CoP of different types and sizes, and this way help to embellish this workshop format as well as to expand it so that it accounts for a greater variety of key aspects of the CoP concept such as the modes of identification, the position of CoPs within landscapes of practice, or the lifecycle of CoPs across time.

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