Measuring the value of online communities and networks of practice for business

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Abstract

How are you measuring the value of your online communities and networks of practice? This research-in-progress paper will showcase an enhancement of the Wenger, et. al. (2011) model for promoting and assessing value creation in communities and networks and the Phillips measurement model linking the value of communities using online social network technologies for performance improvement with business objectives. In our rapidly changing workplace landscape, augmenting formal performance improvement activities are informal learning and coaching incorporating social network technologies to increase involvement, strengthen relationships, and enhance employee development. Two concurrent case studies in Canada and in the Netherlands are currently being conducted to identify the viability of this measurement model in a corporate workplace.

Introduction

Businesses nowadays need to continually gain competitive advantage in order to survive. They need to find ways to adapt to competitive and market changes (Porter, 1996) and need to find ways to continuously add value to their customers. Successful companies are those that are able to consistently create new knowledge, disseminate it widely throughout the organization and quickly embody it in new technologies and products (Nonaka, 1991). Kessels (2001) has coined this process as "knowledge productivity," the ability to recognize and process relevant information, generate new knowledge and use it to innovate and improve the organization's products, processes, and services.

Various authors in current literature point us to the importance of the organization's ability to learn and adapt faster through connecting people. Prahalad and Hamel (1990) posited the importance of adapting to changing environments to create competitive advantage. Trading of ideas and knowledge across organizational boundaries is essential in doing so. The organization's ability to learn and adapt faster than its competition is the single important source of competitive advantage (Senge, 1994). Continuous learning through collaboration and problem solving is a key lever (Cross, Jarche, Jennings, Quinn, 2010). As learning is a social activity, successful companies leverage the social aspect to connect people (Cross, 2007). In this manner, companies thereby focus on their social capital through strengthened knowledge sharing across the organization in online communities or networks of practice. Good working (online) social networks gain competitive advantage (Barney, 1991; Collins, Clark, 2003).

One way to increase an organization's competitive advantage is to leverage the value-add of the dialogue that occurs in its online communities and networks of practice. Finding ways to measure the actual value of networked learning in online communities is a key lever to show its business impact. This paper will explore existing literature on community evaluation models and in turn develop an evolved model for assessing added-value of networked learning through online communities and networks for businesses.

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Online Communities and Networks of Practice in the Workplace

Since the dawn of the Internet, online communities thrive due to active member participation. Brown and Duguid (2000) described two work related types of networks that are of importance to understand work and learning. The first is called "networks of practice," networks that link people who share the same practice and share knowledge although the members in these networks may not always know each other outside of the community. Employees of large-size organizations who are connected in a network might be called a "network of practice." Brown and Duguid (2003) indicated that the second type of work related network is a "community of practice," reflecting upon the terminology of Lave and Wenger (1991). Compared to networks of practice, communities of practice are described as tight knit groups of people who know each other and work together directly. Exploring on how this participation is measured yielded different types of valuation from word-of-mouth (Ledru-rollin, 2007) to putting an actual price on the category of participation (Armstrong & Hagel, 1996). Human resource development (HRD) departments offer tools and practices to support organizations in providing that value. HRD can support in increasing competitive advantage through "developing and reinforcing employee-based resources that are valuable in a particular competitive environment" (Collins and Clark, 2003).

Communities of practice impact organizational performance in several ways. Lesser and Storck (2001) identified four areas of organizational performance that are impacted by activities in communities of practice: (1) decrease in learning curve of new employees (2) more rapid response to customer needs and inquiries (3) reduce of rework and "reinventing the wheel" (4) spawning new ideas for products and services. Lesser and Storck (2001) successfully connected development on the dimensions of social capital and organizational performance through learning in communities of practice.

Looking through lens of social capital, this research will explore ways to measure the value of online communities and networks of practice in organizational learning. Nahapiet and Ghoshal (1998) described three clusters within social capital: (1) structural dimension, (2) cognitive dimension, and (3) relational dimension. The structural dimension in social capital is about who a participant can reach (ties) and how one can reach them (configuration). The cognitive dimension refers to the shared codes, language, and narratives of participants in a network. The relational dimension embodies the social construct of the network. The three dimensions have a common theme of trust, norms, obligation, and identification. The most difficult dimension to measure of the triad is social capital. From our experience in consultancy praxis, we find that learning technologies are often implemented with a focus on structural dimension. Cognitive and relational aspects of social capital are often not addressed.

Several studies showcase the positive effects of the value of social capital and communities of practice to organizational performance. The mere group of studies have had their focus on "physical" communities of practice, where people meet in face-to-face gatherings. With the rise of web 2.0 technologies, many organizations are now adapting social learning technologies to facilitate the creation of connections and knowledge sharing in online communities or networks of practice.

Murillo (2008) described the construct of virtual communities of practice. Daniel, et. al. (2003) pointed two major forms of virtual learning environments: (a) virtual learning communities, and (b) distributed communities of practice. A virtual learning community is described as a "group of people who gather in cyberspace with the intention of pursuing learning goals". Distributed communities of practice are described as a group of geographically distributed individuals who are informally bound together by shared expertise and shared interests or work. These individuals rely on information and communication technology (ICT) to connect to each other (Daniel et al, 2003.). Daniel, et. al. (2003) reflects on the difference between the two forms of communities; in virtual learning communities the individuals may not know each other and in distributed communities of practice, individuals are well known to each other.

Measuring online communities and networks of practice

How can we measure success or value of online communities of practice or networks of practice for the organization? We needed a model that links return-on-investment for the technology that houses the networks of practice to the return-on-investment for the resources and time accorded to what is hoped as a value-add dialogue that is facilitated by the online community. We explored Phillips ROI Methodology model (2003) as enhanced by Bersin (2008), incorporated Kaplan and Norton's (2003) Strategy Maps, and determined its linkage

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407

to "cycles of value creation" model by Wenger, Trayner, and de Laat (2011) resulting in an evolved model to measure what we are calling an organization's "knowledge collective" (Figure 1).
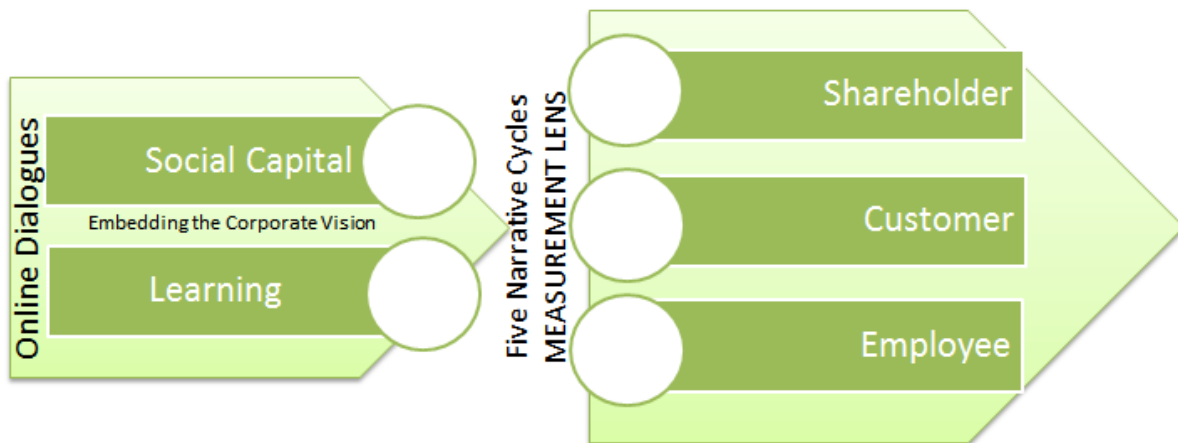

Figure 1: Yap-Robben Model for Measuring the Knowledge Collective of Online Communities and Networks of Practice

The Phillips ROI Methodology (2003) model provides a step-by-step process for collecting data, summarizing and processing data, isolating the effects of programs, converting data to monetary value, and capturing the actual return on investment. Bersin (2008) enhanced this by correlating the measurement using the lens of learning in both formal and informal environments. Wenger, Trayner, and de Laat (2011) determined value creation in social networks and communities of practice through a linkage of ground to aspirational story telling in five cycles of value creation which are (1) immediate (2) potential (3) applied (4) realized and (5) reframing.

We incorporated these cycles of value-creation through what we've identified as "narrative cycles" determining the importance and validity of the conversations and dialogue occurring amongst participants of social networks and networks of practice. We then encased these narratives with what the participants identified as the culture of their organization where the conversation occurred as this provided direction and focus enabling the narrative to be aligned with the participant company's identified corporate vision. The measurement of success is dependent on how the narratives affect organizational performance through the lens of shareholder value, customer engagement, and employee experience.

Case Study

Wanson & Holton (2005) correlates lived experience with knowledge creation and the qualitative study using grounded theory of this knowledge creation is the appropriate method in determining the viability of the model we posited in this paper. The researchers will conduct two concurrent phenomenological studies and will utilize a modified van Kaam method by Moustakas (1996) through structured and taped interviews to explore the lived experiences of employees in work environments using online networks and communities of practice. The research will be conducted in two countries, one in Canada and another in the Netherlands.

The Dutch case study involves a large health care organization in The Netherlands with 18.000 employees in its involved department. The employees typically work in self managed, small scale, teams that provide local services to their customers. Networked, online social technologies are currently being implemented in this organization to provide a platform for performance support and knowledge productivity within teams as well as amongst teams across the organization and geographical boundaries. Interviewees are all participants in these online networks and include health care workers as well as middle management.

The Canadian case study is an open participation study of individuals from various organizations, profit and non-profit, solicited from colleges, universities, and professional associations to gain a wide breath of respondents. All participants respond to an online survey. The participants all have one common requirement, participation in an online community in their organizations which serve as the media to continue the learning the participants have engaged in a face-to-face classroom environment.

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408

In the research, the focus will be on the measurement of the success of the dialogue in organizational online communities and networks of practice. Interviews will be conducted from identified participants in the Netherlands study to determine if, when, and how learning through the social networks and networks of practice intervene to improve or detract from the interaction and learning that occurs while using the social platform. A similar set of questions conducted through an online asynchronous survey will be conducted in the Canadian study. There will be an initial five individuals interviewed in the Netherlands study while an attempt to gain at least 25 online participants from various organizations in the Canadian study and the findings will be presented at the conference. A secondary online questionnaire based on the results of this initial study will be developed for a more fulsome research in the future.

Interview and online survey questions will revolve around the three key concepts of the model for measuring learning in online networks and networks of practice: Measurement of Shareholder Value, Customer Engagement, and Employee Experience. The framework of the social capital dimension-based interview questions with the lens of shareholder, customer, and employee is shown below:
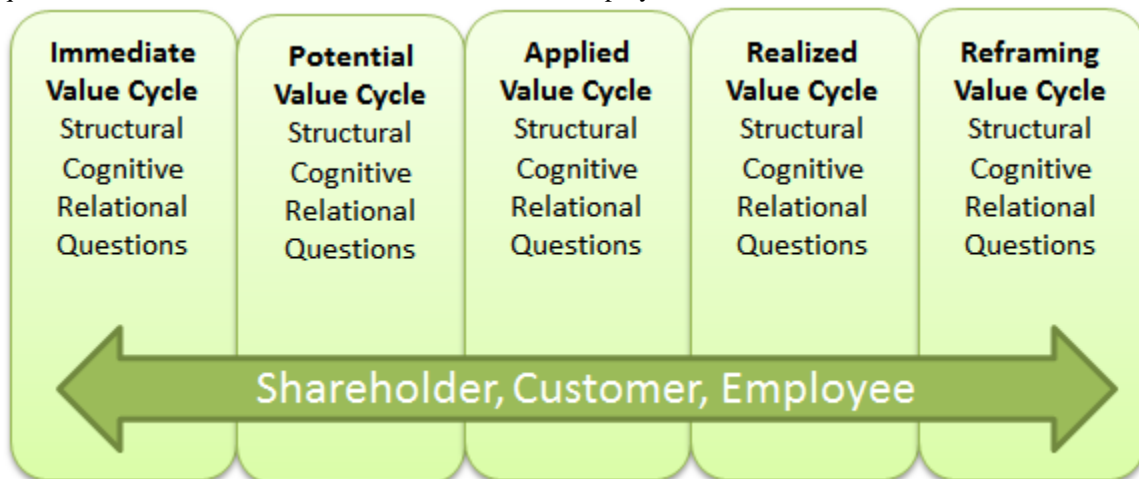

Figure 2: Interview Question Framework integrating Five Cycles of Narratives through the lens of Shareholder, Customer, and Employee

The interview questions were based from (Wenger, Trayner, & de Laat, 2011) and updated to reflect the relationships occurring in the case study's online communities:

   Immediate value: What happened and what was my initial experience in participating in the online social network?

   Potential value: What has all this activity online produced?

   Applied value: What difference has participation in the online community made to my work/job?

   Realized value: What difference has participation in an online social network made to my ability to my job performance?

   Reframing value: Has participation in a social network changed my or other stakeholders' understanding and definition of value creation to the organization?

The interviews will provide an understanding of the factors of the online dialogues that affect Shareholder Value, Customer Engagement, and Employee Experience. Coding each interview will identify trends that link to return-on-investment. Interviews will be analyzed through pattern recognition software (example: ©NVivo) of specific key words that are indicative of the subject's trait or behaviour.

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409

Conclusions and Summary

This research-in-progress paper has identified the landscape of social networks, networked learning, and social network technologies. Based upon Wenger's et al. (2011) framework on promoting and assessing value creation in communities and networks, a model has been identified to measure the success of the organization's "knowledge collective" - the dialogue and learning in online communities and networks of practice in corporate environments. The methodology for the research study has been presented and will be used in conducting two concurrent studies in two continents. Upon completion of the research, the results will be incorporated into this paper. The model presented in this study will provide an evidence-based instrument for organizations to measure the value of the dialogue in online communities to achieve business results.

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410

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