The Project Management Office a Centre of Knowledge Excellence?

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Abstract

Knowledge Is Widely Regarded As One Of An Organisation's Key Assets. Heightened Attention Is Now Being Focussed On Creating An Environment That Effectively Maximises Knowledge Transfer. To This End, The Centre Of Excellence And Its Role Within A Corporate Project Office Provides A Useful Example Of How This Facility Contributes To Knowledge Management For Project Managers.

We Explain In This Paper How Centres Of Excellence Can Be Viewed As A Particular Class Of Knowledge Networks That Has Great Potential For Making Well-Informed Decisions. Its Usefulness Is That It Helps To Focus Those Involved In Project Management On Developing Project Management Knowledge Assets. We Hypothesise That This Will Contribute To The Improvement Of Project Management Practices And Provide Both Tangible And Intangible Outcomes For Clients And Project Management Practitioners.

Keywords
Communities Of Practice, Centres Of Excellence, Knowledge Management, Project Management

1 Introduction

The value of cross-organisation knowledge sharing communities as effectively occurring when groups work together to solve complex problems and the process of knowledge creation and transfer has been accepted by experts (Davenport and Prusak 2000).

Project management, inherently involves a temporary organisation of people to undertake a defined objective in a finite period (PMI 2004). As the network of people from different teams and organisations form and disband at the end of the project—often as noted by DeFellipi (1998) with no continuity of knowledge to the project 'client' and only in an *ad hoc* way to project participants. To counter a serious loss of management energy and resources being wasted through dysfunctionally managing knowledge, the concept of knowledge networks has been evolving under the guise of various forms and terms. Powell (1998, p131) describes knowledge networks in the biotech industry in terms of "organizations and networks as vehicles for producing, synthesizing, and distributing ideas". These include forms described by Wenger as communities of practice (CoP). A CoP is "a group of people, informally bound together by shared expertise and passion for a joint enterprise" (Wenger and Snyder 2000, p139). A close and tightly bound

force binds people engaged in common enterprise through shared experience, shared sense of belonging and commitment to the community by identifying with its shared assumptions. This has been linked to meaning (making sense of colleagues' shared experience through reflection and dialogue) by decades of work by Weick (1995). The degree of engagement and supporting mechanisms largely determines a knowledge network's effectiveness in knowledge exchange and sharing to building wisdom.

Knowledge management has been generally described as the process of facilitating the creation, organisation and refinement, transfer, and use of knowledge (Davenport and Prusak 2000). The key issue in knowledge management is that it is about facilitation rather than applying specific tools, particularly information and communication technologies. Effective knowledge management enables access to and transformation of knowledge that helps people make wiser decisions. Wisdom is based upon reasoning applied to a particular action or behaviour—knowing when and/or how to apply, or refrain from, applying rules. Technology or organisational structures used for knowledge management can only be an enabler/facilitator by getting people together to create and share knowledge—rather than being a knowledge generator itself. E-tools include, but are not limited to: information repositories; search engines; knowledge portals; and even software such as groupware.

2. Forms of Knowledge Networks Used by Project Managers

Communities of Interest (CoI) are loose ad hoc groups that come together to informally share information. They seldom have a life span beyond one or two meetings and meet with such infrequency that they remain as originally organically formed within an evolving *ad hoc* membership that varies greatly between meetings depending on who is interested and needs to exchange knowledge. These have no formal structure or defined membership and this does not limit the value of knowledge networks as considerable information and knowledge is shared and learned and created in informal settings. The capture of such knowledge at these networks, however, is often a great deal more illusive, given the lack of structure and methodologies to capture it (Wenger *et al.* 2002, p42)—such meetings often have no record of proceedings.

Project Teams are formed for a common purpose to achieve a set of objectives, tasks and to generate a product or deliverable. The notion of project teams is quite broad as they are often numerous teams grouped and assigned to a project each fulfilling various functions (initiation, design, delivery, etc.) and are generally answerable in part to the project manager representing the lead team who in turn is accountable to the project's client for coordinating these diverse teams delivering the project outcome (Walker and Hampson 2003b, p21). Project teams may reside within the sponsoring business unit, or in some cases be part of a centralised strategy within a project office. In this latter case they are tightly linked and their sense of community is generally stronger because they share common workspaces, they usually have a common identity associated with the project, and their project involvement gives them a sense of common meaning and community. As teams move through a project's different phases of initiation, design and planning, implementation, and closeout, (PMI 2000) there is an ebb and flow of personnel with special knowledge drawn upon at different times. This discontinuity, and the fact that the project team will be disbanded at the end of a project, inhibits a sense of continuing community beyond the project.

The Project Office (PO) maintains that POs tended to be stand alone, single project offices with a project specific team supporting a single project up until about 1990 (Kerzner 2003). Large scale projects that can justify dedicated personnel were generally centred on the project and the project team inhabited that office. There was little if any formal exchange of transfer of knowledge from one project to another except via the senior project sponsors—these people had little knowledge of day-to-day activities and relied mainly upon monthly reports from the project manager's team and any site visits that were undertaken so naturally

knowledge exchange across projects was limited. During 1990-2000, there was a general move in many industries in Western economies towards projectisation, organisational de-layering, outsourcing and introduction with advanced information and communication technologies to link and connect parts of the business both together and to the corporate core headquarters (Pettigrew and Fenton 2000). Kerzner (2003), suggests this had the effect of starting to change the role of the PO from governance agent (managing and controlling the project on site) towards a more distributed entity with POs for major projects.

A PO is characterised as being one of three types of entity: a stand-alone project management office (PMO) that manages a single project; a project support office (PSO) that traditionally supports the organisation and its business units to achieve successful outcomes but does not direct or have a line of authority over the business; or the corporate project management office (CPO) that services the entire company and focuses on strategic and corporate activities to coordinate and improve project management within the entire organisation. Kerzner (1998) provides a simplified model of a CPO with four direct components:

1. Project managers (engaged in the PO for their projects);
2. Support staff for the corporate activities described above;
3. Tools such as information and communication technologies facilitating project monitoring and control, knowledge management and decision support tools that at one extreme can be visualised as the classic incident room used by police forces around the world to solve crimes or the 'war room' that can provide highly sophisticated coordination in crisis management and has been reportedly used to great effect in the Hewlett-Packard Compaq merger (Ingebretsen 2003); and
4. A centre of excellence to continually improve project management activities and bring best practice to as many areas of the organisation as possible.

The *Center of Excellence (CoE)* is a concept that has emerged to promote growth within disciplines, associations or groups that share common practices. The highly evolved project office form of CoE is more than a passive vehicle for improving project management practices by transferring best practice. Through the transfer of best practice and learning derived from benchmarking, it can actively encourage knowledge management and development of wisdom. In order to create an effective CoE, Bolles (2002) identifies four key elements: *Authorisation* – assists organisations to align its resources with its strategic objectives. It identifies, categorizes and prioritises projects. It also provides a means to manage projects and assist an organisation to advance in its levels of project management maturity; *Standards* – establishes standard tools, templates and methodologies to be applied to all projects within an organization; *Education* – provides training and educations to all concerned with respect to project management within an organisation. This is a key component of the cultural change that is often required to implement the authority and standards structures; *Readiness* – establishes a projects readiness to proceed through the required methodologies and may include an evaluative aspect or pre-project assessment of the likelihood of project success. This could include assessment of critical success factors or a preliminary risk analysis

If we choose to view CoEs in the light of being a facilitating agent within a CPO that potentially creates and transfers knowledge of best practice then it is worth using the framework that Nahapiet and Ghoshal (1998) suggest to describe how social networks function. This is because the issue remains whether wisdom can be best engendered through predominantly mandated or voluntary means. As wisdom and deeper knowledge work activities require personal insights and collaboration, then a voluntary system or one that is predominately voluntary with corporate non-threatening encouragement, probably provides the best facilitating environment for CoE people and system development activities. The key input is social capital as 'good will', created by networks of people developing a way of trusting each other to commit to certain mutually advantageous enterprises and activities.

Social capital has three dimensions. Structurally, it comprises network ties, network configurations and appropriate organisation for these networks. It is worth reiterating the part of the definition of (Nahapiet and Ghoshal 1998) that relates to potential as well as realised benefits of social networks. The *structural dimension* of social capital infers that to develop and fully leverage social capital we need to understand, perhaps through mapping, network ties including their nature, characteristics and configuration. If this is effectively done then there is an opportunity to adapt the business organization to best avail itself of the benefits to be derived from social capital with respect to knowledge and intellectual capital. A second dimension of social capital identified by Nahapiet and Goshal (1998) is *cognitive*. This comprises firstly, shared codes and language and secondly, shared narratives. Shared codes and language is an easy concept to grasp. The third dimension of social capital is relational. This represents four elements. *Trust* as discussed in (Walker and Hampson 2003a) is vital for alliances and partnership whether this be a CoP or more formal arrangement. Trust means an expectancy that promises will be delivered as well as a measure of knowing what any person within the social group may be expected to deliver. *Norms* are the rules and degree of consensus about some important matters that concerns the social group. For example, the norms that when a group member sends out a general call for help on a specific matter that anyone in a position to help will volunteer to assist (rather than being dragooned into doing so). *Obligations* operate as a credit transfer system. They bind members into mutual dependency which a very powerful force for maintaining and developing social networks because it is the whole point of their existence. *Identification* is a process whereby members of a group feel and believe that they truly belong to that group.

Having described what social capital is comprised of and characterised by; we need to know how it can be leveraged to generate new intellectual capital. Four conditions for exchange and combination of knowledge are describe by Nahapiet and Goshal (1998). First there must be an opportunity existing for combination or exchange of knowledge through *access to a social network* with that knowledge and/or access in terms of appropriate information and communication technology to do so. Second, there must be an *anticipation of the value* to be derived from the exchange or combining of knowledge. There must also be a *motivation* to share knowledge or to combine knowledge in creating new knowledge. The fourth condition, *combination capability*, is a capability of individuals or organisations to combine explicit knowledge from a variety of sources with personal tacit knowledge and insights—'absorptive capacity' (Cohen and Levinthal 1990). This transforms existing knowledge into something novel.

3 Analysis and Discussion

Thus far we have highlighted classes of knowledge network structures that create, transfer and use knowledge and develop wisdom in people. We introduced social capital's role in creating intellectual capital that includes knowledge and wisdom and identified social capital in terms of three dimensions and identified learning as being predominantly conducted at the individual, group and organisational level.

Knowledge networks provide an important vehicle for individual and group learning. Table 1 summarises the characteristics of each type of knowledge networks that we have constructed. CoIs are valuable for individual learning but wisdom generation may be limited because the CoI participants are more likely to be involved in single rather than double loop learning and a CoI requires little if any resources and organisational support. These are organic bottom-up type networks with little organisational learning being developed but with little or negligible costs to organisations for support.

CoPs provide better value as they can generate double loop learning and hence wisdom. Individuals and groups benefit from learning. Retention of organisational knowledge is low to medium depending on how the organisation supports CoPs. Organisational support can be quite low as CoPs are most likely bottom-up networks, though corporate sponsored CoPs require resources such as ICT infrastructure and the kind of purpose built software tools described by Davenport and Prusak (2000).

Project teams using the PMO to promote both individual and group learning are organisationally sponsored and so more top-down developed and hierarchical in nature. They have greater levels of resource commitment intensity but they do return some limited organisational learning and memory, both individual and group learning and are moderate in their organisational resource demands.

Table 1 – Knowledge Communities in Relation to the Dimensions of Social Capital and Learning

As the PO characteristic moves towards a more interventionist approach higher group learning and wisdom potential is likely but at the cost of committing greater organisational resources. The project support office is still not organisation wide (focussing on groups of projects within a defined customer base or business unit/division) demanding less corporate resourcing with lower learning achieved at the total organisation level compared to the corporate project office, which is highly focussed on developing and transforming standards as well as best practice transfer across the entire organisation.

Knowledge Network Type	Structural Dimension	Relational Dimension	Cognitive Dimension	Dominant Learning Level *	Degree of Hierarchy	Organisational Knowledge Retention	Level of Potential Wisdom Generation	Corporate Support Resources Required
Community of Interest (CoI)	No	Yes	Maybe	IL*	Very Low	Very Low	Low-Medium	Nil
Community of Practice (CoP)	Yes /Maybe	Yes	Yes	IL*/GL	Low	Low/ Medium	Medium-High	Nil - Moderate
Project Team	Yes	Yes	Yes	IL/GL*	High	Low/ Medium	Low	Moderate
Project Management Office (PMO)	Yes	Yes	Yes	IL/GL*	High	Low/ Medium	Low	Moderate
Project Support Office (PSO)	Yes	Yes	Yes	IL/GL*	High	High	Medium	High
Corporate Project Management Office (CPO)	Yes	Yes	Yes	IL/GL* /OL	Very High	Very High	Medium-High	Very High
Centre of Excellence (CoE)	Yes	Yes	Yes	IL/GL /OL*	Very High	Very High	High	Very High

Where IL = individual learning, GL = group learning, OL = Organisational learning *=dominant level

CoEs, often as part of a CPO, are highly corporate and resource intensive, though this leverages greater learning across the organisation and is more likely to deliver double loop learning as wisdom it can also be argued that they are capable of matching resource costs committed with savings in wasted resources

(management and direct costs) as well as delivering more consistent and better service quality. It is for this reason that they may be argued to justify themselves, however, this has not been proved conclusively to any significant or even cursory degree. Measuring the effectiveness of CoEs will no doubt be the subject of a significant focus of research effort over future years.

4 Conclusions and Recommendations

CoEs facilitate and enable organisations to better utilise CoPs to flourish and enhance knowledge transfer and, through people sharing rich insights, allowing their staff to gain wisdom. The CoE also has a coordination, knowledge capture and transmission role and so it is better placed to turn personal knowledge into corporate and organisational knowledge. The CoE's benchmarking and best practice diffusion initiatives are particularly relevant to this end. The tools and technologies that the CoE can introduce and develop for corporate wide application provides the wider group problem solving activities that helps to build social capital as well as generate knowledge, for example using ICT groupware. This is a people-centred activity but communication technologies have its role to play. The authors are currently evaluating how a CoE is being deployed in Canada, however, findings are not finalised.

In this paper we linked knowledge with wisdom by showing how knowledge may be exposed and tested that can create the conditions for project management wisdom to be developed. We argue that knowledge community development might move through a continuum of maturity moving from CoIs, through CoPs and in parallel and complimenting these, forms of POs that engage knowledge networks.

We argue that CoEs may be situated at the highest level of knowledge network in terms of potentially delivering organisational as well as individual learning, greater levels of wisdom and double-loop learning that has been delivered in a strategic manner. We show that this may inhibit organically formed CoPs but that still may be achieved if the organisational style is sensitive to grass-roots movements that can be harnessed to organisational advantage. If corporations are willing to commit sufficient resources to CoEs, then the benefits may extend well beyond cost savings through minimising waste but also deliver greater creativity and double-loop learning leading to greater wisdom. This then becomes apparent throughout the organisation, and learning occurs at the individual, group and organisational level.

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