Towards the Creation of Story Sharing Network of Research Supervisors

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Introduction

It is a fundamental requirement of graduate research that it is done under the guidance of academic supervisors. It is the responsibility of supervisors to guide and monitor the development of the research and ensure that the student is appropriately applying the important research skills. Supervisors also help by ensuring that the dissertation comes to a successful conclusion.

The function of the supervisor is therefore significant in the entire research endeavour; and it has been argued that a major cause of failure to complete postgraduate degree is due to inadequate supervision (Welford, 2008). Recent investigations conducted in the USA by the Council of Graduate Schools revealed that mentoring/advising is the second highest (65%) factor contributing to respondents' PhD completion; second only to financial support (80%) (Kirby, Sowell, Bell, & Naftel, 2009). The central role that supervisors play in students' postgraduate expertise makes it necessary for supervisors to use their ability, knowledge, and the experiences of their colleagues to provide students the best supervision necessary.

However, this is not always the case. Due to the fact that academic exploration requires intellectual, personal and other factors, conflicts arise among supervisors and students to the extent that sometimes schools of graduate studies are required to intervene. At this level, among the usual solutions proffered is to change the supervisor, but it is a cumbersome situation and not a favourable one for all concerned. Although the student's progress may be delayed by waiting for a new supervisor, the previous supervisor's ideas and effort could possibly go unrewarded specifically when it comes to eventual publication of the study findings. This may be a reason why schools of graduate studies prepare elaborate supervision guides to facilitate cordial relationships between supervisors and their students, also at the same time taking care not to stifle intellectual debate.

This is because intellectual debate is a cardinal element of university natural forte. Thus, both the postgraduate student and the supervisor have to acknowledge that academic inquiry calls for probing and challenging questions (University of Western Ontario) which needs to be viewed as a healthy aspect of supervisor-student relationship. Yet, intellectual debate is usually counterproductive when protracted debates on philosophy, style, or academic substance emerge.

For that purpose, it is usually crucial that such conflicts are avoided prior to their occurrence. This objective can be achieved if university teachers have access to the tacit knowledge their colleagues hold about student supervision, making them collectively much more knowledgeable about student types, personalities, and cultures.

In spite of the truism that the problem stated above is frequently acknowledged, studies in the area is surprisingly scant; rarer still is research attention on capturing the student-supervision tacit knowledge of professors. In this paper, we focused on capturing supervisors' tacit knowledge in a narrative form and sharing the explicit product informally with colleagues on an Internet forum.
Our model is based on Nonaka and Takeuchi’s (Nonaka & Takeuchi, 1995) view of the codification/articulation of tacit knowledge. We also draw on Snowden’s (Snowden, 1998) argument that knowledge comes from its exercise, not from its existence.

**Importance of Tacit Knowledge**

People are not usually aware of the tacit knowledge they possess or how it can be beneficial to others. Collins (Collins, 1974) argues that tacit knowledge involves knowing how to do things that might have been learnt long before.

Tacit knowledge (as against formal or explicit knowledge) is tough, but not impossible, to transmit to others by writing or verbalizing. Tacit knowledge is not easily shared because of the fact that it comprises automatic patterns of behavior and culture which are not easily recognizable. On the other hand, tacit knowledge can be gained by way of personal knowledge and transmitted by means of training. In the knowledge management field, the procedure for transforming or converting tacit to explicit knowledge is referred to as codification or articulation.

By contrast, knowledge that’s formal or explicit and easily communicated and transferred to other individuals or organization is explicit knowledge. Even though explicit knowledge is abundant and very easily acquired by reading papers, access to digital products and engaging in discussions, the less assessable tacit knowledge is as essential as or more vital than explicit knowledge (Dooba, Downe, & Mahmood, 2010). This is mainly because much of explicit knowledge may not be crucial in moving an organization towards its goals and objectives.

An organization needs knowledge that’s undoubtedly specific, state-of-the-art, and promptly practicable at a specific time to facilitate resolution of problems that upset the organization and in creation of products. It is the kind of knowledge which is important and about 80% of it resides within heads of individuals (Nonaka & Takeuchi, 1995).

Thus accessing the right type of knowledge at the right time becomes imperative for academic institutions. And considering that the professors are the principal sources of knowledge within institutions, (Dooba et al., 2010) it becomes vital to extract knowledge from the supervisors not only because they may retire from the university at a point in their lives, but also to make knowledge readily available for the colleagues that may need it.

**The SECI Model**

Many models of knowledge management have been proposed (Carayannis, 1999; Despres & Chauvel, 2000; Earl & Scott, 1998; Edvinsson & Sullivan, 1996; Hedlund, 1994; Inkpen & Dinur, 1998; Snowden, 1998; Van Buren, 1999; Wiig, 1993). However, Nonaka and Takeuchi’s (Nonaka & Takeuchi, 1995) model has a wide appeal among knowledge workers (Perez, 2003). These authors proposed that tacit knowledge could be transformed into explicit knowledge; substantially diverting from Polanyi’s view of ‘tacit knowing’ which has no empirical foundation.

Nonaka’s Socialization, Externalization, Combination, Internalization (SECI) model was initially introduced in 1991 and immediately gained acceptance as a practicable and rigorous view of approaching the ways knowledge is created, transmitted and shared in organizations. The model
addresses the following: two kinds of knowledge (tacit and explicit), interaction dynamic (transfer), three levels of aggregation (individual, group, context), and four knowledge-generating processes (socialization, externalization, combination and internalization) (Perez, 2003).

Nonaka proposed that a knowledge-creating company should actively ease the interaction of tacit and explicit types of knowledge within the organization. Organizations can achieve this via the existing organizational culture, systems and structures. These structures help the interplay of the four knowledge creating processes revolving in a spiral. The following are the four knowledge-creating processes.

Firstly, there is socialization, sharing of tacit knowledge amongst individuals in close physical contact via joint activities. The second procedure is externalization, formulation of tacit knowledge in publicly understandable forms. Next is combination, the transformation of explicit knowledge into complex forms of explicit representation. This entails communicating, disseminating, and systematizing the explicit knowledge. Finally, there is internalization, the transformation of explicit knowledge into tacit knowledge either on an individual or organizational level.

Vital in Nonaka’s model is the notion that the spiral that results from the interplay of tacit and explicit knowledge is crucial to knowledge creation and re-creation. He suggests that organizations need to acknowledge the significance of this dynamic interaction and institute the frameworks that will make such possible.

Moving the discussion on knowledge management further, Nonaka and Konno, in 1998, proposed the concept of Ba, which approximates location in the English language. Accordingly, in knowledge management a Ba is a site for knowledge transformation and also the related relationships.

They Identified Four Bas:

Originating Ba: is defined as a place where people share feelings, experiences, emotions, and mental models.

Interacting Ba: refers to a place where tacit knowledge is converted to explicit knowledge. The major aspects in this Ba are dialogue and metaphors.

Cyber Ba: is defined as a place in which interaction takes place in a virtual world. It consists of combining new and recent explicit knowledge in generation of new explicit knowledge.

Exercising Ba: refers to a place that facilitates the transformation of explicit knowledge into tacit knowledge.

A Ba is context dependent; for that purpose, separating it from its area will render it less meaningful. It follows that just about every knowledge creating process calls for a Ba. The concentration of an organization actually should in reality be on Bas; considering that additional benefit is gained in preparing the environment around the processes than focusing on the processes themselves (Perez, 2003). This framework combines Originating and Cyber Bas because the capturing, sharing and recreating the research supervision knowledge occur in real and virtual space.

Using Stories to Manage Knowledge
Experts are increasingly using story-telling techniques in communicating within and about organizations (Shell, 2001). It is easy to understand how people warm up to stories by observing speakers who alternate between prepared speeches and story-telling. Whenever a speaker finishes a story and goes back to prepared speech, the audience returns to fidgeting (Thomas, 1998). A narrative could have numerous propositions and still be shorter, easier, and simpler to understand and remember in comparison with non narrative methods. This is because stories draw their effectiveness from an ancient resource – the power of social dynamics – they are deeper and significantly more compelling in comparison to non narrative text. When we read the record, we create an image in our minds which is complete and internally consistent, and we can use that image as a setting for any points that are made (Thomas, 1998).

Social communities and organizations still use the tradition of oral narration to pass down wisdom or insight and big corporations around the world are utilization it effectively to change their business mindset in their effort to boost their knowledge mobility. Aiming to enhance access to knowledge globally within its organization, Shell International Exploration and Production’s Organizational Performance and Understanding (OPAL) team argues that “the power of a good story well told can inspire innovation, personal challenge and professional breakthrough. Stories can encourage us to change, to think ‘out of our boxes’, to seek the aid of others in leveraging our own efforts. For these reasons we have embraced story-telling within Shell Exploration and Production as a means of helping shape our knowledge-sharing culture” (Shell, 2001).

This approach is aimed at making their staff become aware of means readily available to them for solving problems and recognizing opportunities within Shell (Shell, 2001).

Another organization that has found comfort in stories in their knowledge management activities is IBM. The organization tries to identify the approaches in which stories are best integrated in knowledge management practice. IBM also researches how best to collect, organize and present stories. The corporation also put in place the facilities for searching and navigating the flow and consequences of the stories (Thomas, 1998).

These organizations and many others for instance, HP (Davenport, 1998) have discovered the power of stories and are using them to elicit, capture, share, and recreate knowledge to facilitate knowledge mobility and improve human capital.

**Storytelling to Improve Research Supervision**

This technique is not a research supervision model. Rather, it is a framework for capturing and sharing tacit knowledge gained from research supervision. The process starts from the graduate student supervision via meetings and discussions, writing stories about the supervision, and posting it on an Internet forum for the benefit of other network members. The method then moves to the stage where other professors on the forum will benefit from the story and back to the beginning where supervisors use the tacit knowledge gained to improve the quality of research supervision and acquire new tacit knowledge to be shared on the forum with the network members – and the process starts all over again in a spiral.

This framework simulates Nonaka’s KM spiral except that the socialization aspect is carried out by professors and students. The process is explained more clearly below.
1. Supervision stage: this is the stage where supervisors interact with their students through meetings, discussions, presentations, proposal defense, and so forth. Tacit knowledge is gained at this stage by supervisors via these interactions.

2. Articulation stage: at this stage the supervisors codify their tacit knowledge by writing it up in an informal story form. This step transforms the tacit knowledge to explicit knowledge.

3. Sharing stage: this is where the supervisors upload or post their experiences online. Each account is uploaded under the relevant theme (e.g. ‘choosing a research topic’, ‘designing a study’, ‘reviewing literature’ etc.) on the forum. Research supervision knowledge is now in explicit form for the benefit of other forum members.

4. Reading: other members read the stories at this stage; here, the transformation from explicit to tacit knowledge occurs. Readers can search for the narrative of interest under the different topics.

5. Next interaction with students: after digesting the experiences of colleagues, supervisors’ skills will be enriched, the methods they are already using validated or they may discover entirely new approaches.

This course of action continues in a cyclical fashion. Whether the professors are discovering new approaches or their methods are getting validated, they will achieve a renewed confidence when they discover what colleagues are doing and thereby improving the quality of research-supervision interactions.

**Conclusion and Limitations**

This model is an attempt to design a framework that will facilitate the capture, sharing and the recreation of the knowledge of supervisors’ research supervision. It is not a suggestion of an alternative model of research supervision; several experts have done that in the past (Conrad, Perry, & Zuber-Skerritt, 1992; Down, Martin, & Bricknell, 2000; Laske & Zuber-Skerritt, 1996). Although some educators (Zhao, 2003) have argued for incorporation of knowledge management principles in research supervision, our framework can work with any supervision model that institutions use. One of its effectiveness lies in the use of narrative methods in sharing knowledge. A story may be posted on the web informally without pressure, giving participants an incentive to discover new knowledge from other postings and also to post their own.

Furthermore, because of the fact that narratives lean on commonly understood truths, they give information beyond what is obvious (Thomas, 1998). When a narrative captures people’s attention, the reader or listener fills in the gaps by adding his own perspectives. Therefore, the story becomes richer due to the fact that it is experienced personally; activating and accessing a lot more knowledge than what is explicitly stated. Finally, we believe that employing this model will give supervisors access to how their colleagues are solving problems they encounter daily in the course of graduate student supervision.

**References**

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