Knowledge transfer frameworks: an extension incorporating knowledge repositories and knowledge administration

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Abstract. While theories abound concerning knowledge transfer in organisations, little empirical work has been undertaken to assess any possible relationship between repositories of knowledge and those responsible for the use of knowledge. This paper develops a knowledge transfer framework based on an empirical analysis of part of the UK operation of a Fortune 100 corporation, which extends existing knowledge transfer theory. The proposed framework integrates knowledge storage and knowledge administration within a model of effective knowledge transfer. This integrated framework encompasses five components: the actors engaged in the transfer of knowledge, the typology of organisational knowledge that is transferred between the actors, the mechanisms by which the knowledge transfer is carried out, the repositories where explicit knowledge is retained and the knowledge administrator equivalent whose function is to manage and maintain knowledge. The paper concludes that a ‘hybridisation’ of knowledge transfer approach, revealed by the framework, offers some promise in organisational applications.

Keywords: knowledge management, knowledge transfer framework, hybrid approach, knowledge storage, knowledge administration

INTRODUCTION

More than two decades after the flurry of interest shown by the information systems community in knowledge and its management, the landscape of its organisational use still remains uncertain, both theoretically and in practice. Knowledge appears to be widely emphasised to be a critical resource for an organisation’s success, and the role of knowledge transfer in supporting knowledge management initiatives is acknowledged (Albino et al., 1999; Pan & Scarbrough, 1999; Argote & Ingram, 2000; Huber, 2001; Connell et al., 2003; Smith & McKeen, 2003).
The many conflicting issues concerning a precise and ubiquitous definition of knowledge have still not been resolved. Wilson (2002) doubted that there is any real distinction between knowledge and information. Many management researchers, most notably Hamel & Prahalad (1991), Davenport & Prusak (1998) and Al-Hawamdeh (2002), believe that knowledge can only exist in the human mind, and that the moment it is transcribed, it becomes information. Davenport & Prusak (1998), for example, contended that knowledge originates in people’s heads, drawing on information that is transformed and enriched by personal experience. Others (e.g. Nonaka & Takeuchi, 1995; Alavi & Leidner, 2001; Nissen, 2002; Connell et al., 2003) felt that if information is sufficient to act upon, it can be called knowledge. For instance, Nissen (2002) argued that data are placed in context to create information, and information that becomes actionable is knowledge. It is not the intention of this paper to attempt to resolve the lack of consensus in the knowledge management literature regarding the definition of organisational knowledge. Arguing from a philosophical perspective, Hassell (2007) might be right in pointing out that the notion of knowledge used by knowledge management scholars is based on a dubious epistemology. While it would be difficult to argue against his premise that all knowledge is necessarily experiential, his conclusions about knowledge repositories and motivation – ‘what would motivate a person to take what they know – what makes them valuable to an organization – and share it with others?’ (p. 194) – appear to have been demonstrably countered by organisations reporting exactly this happening. Where we and he agree is that the management of such processes, which are more often social rather than technological, is where the greatest challenges lie and the greatest contributions can be made.

One common theme that permeates much of the literature is that knowledge is linked to the capacity for action. The knowledge with which this paper is concerned can be characterised as ‘action-oriented’ knowledge, which is interpreted organisational information that helps organisational members to take purposeful actions and decisions so as to accomplish their assigned tasks: what Machlup (1980) called practical knowledge.

Few would contest that knowledge that resides in human minds has value to an organisation if it is used effectively for organisational purposes. However, knowledge that is not shared with others makes the organisation vulnerable to the loss of this knowledge (Szulanski, 1996; O’Dell & Grayson, 1998; Osterloh & Frey, 2000; Kalling, 2003; van den Hoff & van Weenen, 2004).

Knowledge transfer is an important area of knowledge management. Knowledge transfer is widely regarded as a strategic issue of knowledge management research (Albino et al., 1999; Hendriks, 1999; McAdam & McCready, 1999; Argote & Ingram, 2000). As several researchers, notably Argote & Ingram (2000), argued, an organisation that promotes the transfer of knowledge among its members is more productive and more likely to survive than an organisation that does not. The value of knowledge increases when it is preserved and reused within the organisation (Douglas, 2002).

In existing theories of knowledge transfer (e.g. Davenport & Prusak, 1998; Albino et al., 1999; Hansen et al., 1999; Zack, 1999a; 1999b; Kalling, 2003), the relationship between knowledge storage and knowledge administration remains largely unexplored. The objective of this paper is to extend knowledge transfer theory by developing a sound and robust knowledge...
transfer framework that integrates the activities of knowledge storage and knowledge administration within the knowledge transfer process. The theoretical framework is developed from an analysis of an empirical study, supported by a review of the knowledge transfer literature.

The structure of the paper is as follows. First, the existing literature is reviewed so as to develop a theoretical basis for this research. Next, the methodology adopted in this study is outlined, followed by a description of the empirical findings of the research. Then, a framework for knowledge transfer incorporating additional constructs, namely knowledge storage and knowledge administration, is proposed. The paper concludes by reflecting on some of the implications of its findings for the theory and practice of organisational knowledge management.

**KNOWLEDGE TRANSFER**

Following King (2006), in this paper, we regard knowledge transfer as implying ‘focus, a clear objective, and unidirectionality’ (p. 493), though we accept that it may include less focused knowledge sharing activity. Most of the literature on knowledge management has identified the involvement of two actors in the knowledge transfer process: the knowledge provider and the knowledge receiver. Hogberg & Edvinsson (1998, p. 81) claimed that ‘people are the source of knowledge creation and knowledge transfer’. Several terms are used to identify the parties involved in the knowledge transfer process: knowledge source and knowledge recipient (Leonard-Barton & Sinha, 1993; O’Dell & Grayson, 1998), knowledge provider and knowledge seeker (Holthouse, 1998), knowledge owner and knowledge reconstructor (Hendriks, 1999), knowledge donor and knowledge collector (van den Hoff & van Weenen, 2004) and the transferor and the recipient of knowledge (Connell et al., 2003).

There continues to be much debate over the tacitness of knowledge, arising from the early distinctions made between tacit and explicit knowledge (Polanyi, 1966; Nonaka, 1994). Some suggest the need for a third, implicit category – see, for example, Wilson (2002), Klein (2008), though in this paper, we use the term tacit to cover all knowledge that is not explicit irrespective of whether it could be expressed explicitly (i.e. it is implicit) or not. Since tacit knowledge is embedded in the human mind, this type of knowledge can not be easily separated from the person who possesses it. As a result, it is found to be relatively difficult, or impossible, to codify and transfer (Larsson et al., 1998). Several researchers (e.g. Hendriks, 1999; Huber, 2001; Hislop, 2002; Kalling, 2003; Soekijad & Andriessen, 2003; Jasimuddin et al., 2005) argued that the salient features of tacit knowledge (e.g. complexity and ambiguity) have a great influence on the knowledge transfer process. Such characteristics also dictate how such knowledge will be transferred (i.e. mechanisms of knowledge transfer) and eventually affect the efficiency and effectiveness of knowledge transfer in an organisation. Hislop (2002, p. 166) contended that ‘different features of knowledge (e.g. tacitness) significantly influence the ways in which the transfer of knowledge can take place’.

The mechanism of knowledge transfer is a vehicle by which knowledge is transmitted between the parties concerned. Some authors, most notably Huber (2001), Hansen et al.
(1999), Kalling (2003) and Hendriks (1999), focused on the transmission mechanisms of knowledge and their influence on the knowledge transfer process. Broadly speaking, knowledge transfer in organisations can take place in many different ways. Others, including Zack (1999a; 1999b), Sanchez (1997), Hansen et al. (1999), Earl (2000) and Connell et al. (2003), suggested two very different approaches in order to transfer knowledge: the personalisation and the codification approaches. In the personalisation approach, the emphasis is on transferring tacit knowledge between individuals in a synchronised way. Cook & Brown (1999), for example, argue that tacit knowledge is transferred by means of generation in the course of practice-based experience rather than by codification. The codification approach assists an organisation to transfer explicit knowledge using technology-based solutions.

While articulating the theory of knowledge transfer, scholars, most notably Kalling (2003), Albino et al. (1999), Hansen et al. (1999), Zack (1999a; 1999b) and Connelly & Kelloway (2001), had focused mainly on the actors involved in such knowledge transfer, the nature of knowledge and the mechanisms used to transfer knowledge. In those frameworks, there is little mention of the importance of knowledge storage and knowledge administration that may facilitate the transfer of organisational knowledge. However, a few examples in the literature (e.g. Zack, 1999a; 1999b; Argote & Ingram, 2000; Gray & Chan, 2000; Connelly & Kelloway, 2001; Douglas, 2002; Kalling, 2003) have given some indication of the significance of incorporating ‘knowledge storage’ within knowledge transfer models. Similarly, a few researchers, most notably Davenport (1997), Loeb et al. (1998), Mckeen et al. (2002), von Krogh (2003) and Davenport & Volpel (2001), pointed out the value of having someone such as a knowledge administrator to facilitate the transfer of knowledge. Thus, the existing literature on knowledge management is suggestive of the importance of knowledge administration and knowledge storage for successful knowledge transfer while leaving these areas relatively unexplored.

This paper seeks to explore the development of a holistic knowledge transfer framework that incorporates knowledge storage and knowledge administration addressing the question: how can existing knowledge transfer frameworks be extended to incorporate the knowledge repository and knowledge administration functions, which may help facilitate the effective transfer of ‘action-oriented’ knowledge be it tacit or explicit?

RESEARCH METHODOLOGY

The research involved an in-depth case study of knowledge transfer practices in software development activity at a UK site of a Fortune 100 multinational high-technology computer-related corporation. The case organisation fulfils one of the four ideal conditions for research site selection as prescribed by Marshall & Rossman (1995, p. 51): ‘easy access to the research site’. The lead researcher was given access to the site and was able to visit any department of the organisation on site in order to collect data through interviews. There are a number of benefits from adopting a case study approach (Eisenhardt, 1989; Bell, 1993; Yin, 2003). Eisenhardt (1989), for example, argued that the case study strategy focuses on understanding the dynamics existing within a single setting.
Judicious use of the case study approach combines various data collection methods including interviews, observations and documents (Eisenhardt, 1989). A semi-structured instrument was developed to explore the understandings and perceptions of the participants.

Kuzel (1992) recommended that qualitative samples should be purposive (by which he means selected with a view to specific qualities that they might bring to sample) rather than random. This view corresponds well with that of Patton (1990), who argued that purposeful sampling can be used to select the respondents for qualitative research in order to allow themes or patterns associated with the research questions to emerge and thereby to address the questions. Interviewees were selected from various levels of the research site, namely software developers, first-line managers and second-line managers working in various departments and projects so as to provide a broad representation of those involved in the work of the organisation. A sample of 30 interviewees was chosen. The interviewees were involved in managing a department/project (including second-line managers), leading a team or a group of developers/testers or developing, designing, coding and testing software.

A second round of 11 interviews was conducted in order to validate the data collected during the 30 initial interviews (Yin, 2003), ensure reliability (van de Ven & Poole, 1990) and to confirm the initial findings (Miles & Huberman, 1994). These interviews were more focused and theory-driven with what Miles & Huberman (1994, p. 35) called ‘a well-bounded sample of persons’. The selection of the second round interviewees was made in two stages. In the beginning, the researcher listed the names of the interviewees guided by a Contact Summary Sheet, a tool recommended by Miles & Huberman (1994, p. 51), who defined it as ‘a single sheet with some focusing or summarising questions about a particular field contact’. The lead researcher’s perception of the depth of interviewees’ knowledge recorded in the summary sheets also helped to select these people. After having forwarded to the case organisation a list of 15 prospective interviewees drawn from the initial sample of 30 respondents, 11 additional interviews were arranged. Both the initial and follow-up interviews were tape-recorded and subsequently transcribed. Each interview lasted, on average, 1.5 hours. Most of the interviews were conducted in the respondents’ offices, while a few were conducted in formal meeting/discussion rooms. During data analysis, the transcribed data were also verified with the three interviewees to get further clarification, to cross-check and to identify transcription errors (Neuman, 2000).

The participants described their experiences in transferring knowledge within their organisational setting. The data were analysed, coded and categorised based on the approach proposed by Miles & Huberman (1994), enabling a number of key or recurrent themes to emerge. Eisenhardt (1989, p. 534) explained that ‘Miles and Huberman (1984) have outlined specific techniques for analysing qualitative data. Their ideas include a variety of devices such as tabular displays and graphs to manage and present qualitative data, without destroying the meaning of the data through intensive coding’. The key initial issues were extracted from the content of the transcripts. The themes were then interpreted to give a greater understanding of the issues, which eventually helped address the research question. The data analysis was conducted manually.
DATA ANALYSIS

The data revealed that the codification approach was employed to transfer explicit knowledge using technology-mediated mechanisms such as SameTime (instant messaging) and email. The case organisation invests heavily in information and communication technologies (ICTs) to facilitate such transfer. Studies elsewhere (e.g. Scarbrough et al., 1999; Alavi & Leidner, 2001; Bhatt, 2001; Huber, 2001) confirmed that sophisticated computer-mediated tools often play a central role in the transfer of explicit knowledge within an organisation.

Perhaps understandably, most of the respondents confirmed the view that their chosen knowledge transfer medium was context-specific. A large proportion of the interviewees perceived personalisation approaches, particularly face-to-face interaction, as the most effective and efficient mechanism of knowledge transfer in some situations while acknowledging strengths and weaknesses in all the mechanisms available for the transfer of knowledge. In many situations, the interviewees favoured ‘hybrid’ mechanisms of knowledge transfer combining personalisation and codification approaches as depicted in Figure 1:

I probably think mixture... I think it is difficult to find one way that will fit in all situations. To me it is hybrid. I use both methods definitely.

Jasimuddin (2008) supported this hybridisation, arguing that the hybrid between the two mechanisms is found crucial as far as the successful transfer of knowledge is concerned. In terms of the iceberg analogy (Jasimuddin et al., 2005), the benefits of both tacit and explicit knowledge can be gained if the two mechanisms are allowed to interact. A similar view was expressed by a team leader:

There are strengths and weaknesses of both, really. If you exclusively rely on what you have on websites... then you have to be sure that it is updated. After reading it if you require more... then you can never ever ask the website... . If you speak to someone you can do that more interactively. The weakness... is that both the parties have to be available to interact physically... . If the person is in another part of the world then... it is better to use electronic media; generally speaking, I think the best way is to go with a hybrid of the two.

Interviewees acknowledged the role of stored knowledge, available in organisational repositories, as an element (and a conduit) of the knowledge transfer process: one actor depositing knowledge into a repository and others retrieving it from the repository for reuse. A manager observed:

I think storing knowledge as much as possible makes lots of sense. Next time someone comes to me if it is documented then either I can read it for explaining [to recall] or [can] tell him to read the document before coming to me. It is very very important. Time spent storing the stuff and retrieving it outweighs just starting again from scratch.
A team leader explained:

We should stop wasting their [user] time and our [contributor] time. If an employee is found fixing a problem which has already been solved and is now available in a repository, we tell him to get that piece of knowledge from there [knowledge repository]. It definitely saves everybody’s time.

One of the case organisation’s activities involved writing code, which was then passed to a testing team for functional verification. Team members could save time by using known solutions to problems – as a software engineer noted, ‘my job tends to make use of the existing knowledge after getting it from a person or machine, not to reinvent the wheel’.

The majority of the respondents reported that after having stored knowledge in an organisational repository, its potential for reuse further demonstrated the significance of the possible interrelationship between the knowledge transfer and knowledge storage processes. Inter-
viewees stated that the computer-mediated communication devices that were used privately for knowledge transfer could also be used effectively for knowledge storage – for example, by using a Lotus Notes TeamRoom (an internal database). Another interviewee remarked:

Lotus Notes software provides an electronic repository we call ‘TeamRoom’ which is like a big database where our documents are preserved, which helps to get access to information later on and add comments on it and so on.

A significant proportion of the interviewees viewed knowledge storage as deferred transfer of knowledge in one way or another, arguing that organisational knowledge was stored in knowledge repositories to accomplish future transfer of knowledge. A manager noted (in a somewhat macabre way) that:

The person who wrote and stored knowledge in a repository may be dead. We can get an explicit part of knowledge from the repository without interacting with the knowledge contributor since he is already dead. In such situations, a storage bin acts as a proxy. When we receive the knowledge from the repository, we actually receive indirectly from him, be he alive or not. Knowledge repository is really acting as a proxy for the person who initiated the transfer – the contributor of the knowledge.

However, the interviewees also reported that the knowledge that was available in the repositories of the case organisation was not regularly updated. Organisation members would store documents in Lotus Notes databases without classifying them, which sometimes made finding their exact locations difficult to determine. The interviewees, irrespective of their status, felt that the existing databases were becoming unmanageable and difficult to search. Knowledge required archiving to make best use of computer space. Moreover, if knowledge were allowed to grow without some organised format, then searching for the right material inevitably becomes a more difficult task. A software developer noted:

There is so much available here. If I search for solution of a problem, I go to our Web, TeamRoom or whatever first. There is so much stuff available. If you are new [recently joined] then you might be confused. There is no one [knowledge administrator] as such who should be there to help us in finding the right stuff.

The majority of the interviewees expressed their dissatisfaction with the way in which knowledge was stored in repositories, recognising the need for an individual or group that would be responsible for ensuring the relevancy, currency and location of stored knowledge for each project and guiding others to find the locations from which required knowledge could be easily retrieved. The interviewees highlighted the need for this role to be filled within the organisation, perhaps as a way of guiding new entrants to relevant sources of knowledge. A manager elaborated:

It would be quite good if there is someone among us who actually knows where to find the things [technical advice] and how things are stored. Then it will be probably a good idea for
anyone starting new or learning something new, goes to him [knowledge administrator] asking ‘do you know where I can find it’. . . . Someone in charge of the storage may know exactly how to help him [new recruit] and give quite a right direction.

Several interviewees also suggested that such a person would be responsible for gathering knowledge about ‘who knows what’ so that s(he) could help others in finding the right person to provide technical advice:

It would be quite good if there is someone who actually knows where to find the things I want. Who has knowledge about the sources of knowledge.

The majority of the interviewees reported that managers and team leaders were performing the knowledge administration functional role informally: ‘the managers around us are playing the knowledge administrator role, and they tend to look at the processes that we use’.

DISCUSSION

From the existing literature and the empirical work at the case organisation, there emerges an integrated account of the key components of the knowledge transfer processes within an organisation. Interviewees in the empirical study identified five integral components of a knowledge transfer conceptual framework:

1. the actors who are engaged in the transfer of organisational knowledge;
2. the knowledge that is exchanged between the actors;
3. the mechanisms by which the knowledge transfer is carried out;
4. the repositories where knowledge is stored; and
5. the knowledge administrator equivalent responsible for managing and maintaining knowledge.

Figure 2 outlines the emergent knowledge transfer framework and provides a holistic picture of the knowledge transfer process. Either contributor or user may initiate the knowledge transfer process. Knowledge contributors can either provide knowledge voluntarily to other organisational members or deposit it in a knowledge repository. Again, intended users can seek required knowledge from any other members of the organisation or retrieve it via a repository. The framework stresses the dynamic interaction between the actors in knowledge transfer and the coexistence of mechanisms for both tacit and explicit knowledge transfer. The mechanisms may be employed independently, simultaneously or jointly. Although the personalisation strategy focuses on tacit knowledge transfer and the codification strategy on technology-centric repositories of explicit knowledge, the framework identifies a hybrid strategy recognising the importance of the interplay between the two mechanisms. This hybridisation differs from that proposed by Desouza & Evaristo (2004) in their study of information technology (IT) projects in which they propose two components: a repository holding what they term ‘popular’ knowledge (applicable to any project) that acts as an index to a second component holding project-specific knowledge.
The proposed framework also underlines the existence of a knowledge repository where a knowledge contributor deposits knowledge for future use. It is argued that knowledge storage should not be separated from the knowledge transfer process and that it is appropriate for organisations to use an ICT tool, such as Lotus Notes, to support an integrated approach to knowledge transfer and knowledge storage. Butler & Murphy (2007) reported that researchers have identified a range of different IT artefacts that are argued to support the creation, storage, retrieval, transfer and application of knowledge in organisations, such as knowledge repositories, databases, electronic bulletin boards, intranets and email.

The framework positions the knowledge administration function in such a way that it connects the two major actors in the knowledge transfer process, who are also connected to the knowledge repositories. Davenport & Prusak (1998) provided a list of a new set of knowledge professionals, such as knowledge manager, knowledge coordinator and knowledge network facilitator, whose responsibilities would be to facilitate knowledge management initiatives. Such individuals may engage in developing a knowledge management strategy and managing knowledge content for their organisations (McKeen et al., 2002). The widespread presence of a knowledge administrator equivalent in Fortune 500 companies (Abell & Oxbrow, 1999) may be indicative of the value of the incorporation of knowledge administrators in the knowledge transfer framework.

CONCLUSION

The study reported in this paper provides insights into the phenomena surrounding knowledge transfer, prompting a knowledge transfer framework that integrates knowledge storage and
knowledge administration within the knowledge transfer process. The proposed framework is an extension of existing knowledge transfer theory (e.g. Hansen et al., 1999; Zack, 1999a). One of its contributions to this literature is its proposal for the need to embed and integrate knowledge repositories and an administrator role within a hybrid approach. Zack (1999a), for example, identified two types of applications associated with managing organisational knowledge: integrative applications, which focus primarily on the repository of the explicit knowledge, and interactive applications, which focus on the interactions among organisational members with tacit knowledge in which the repository appears to be the by-product of any interaction. However, the present proposed knowledge transfer framework does not separate the applications described by Zack (1999a). Instead, they are both embedded within the five basic elements of knowledge transfer and their interactions. Similarly, although there are isolated descriptions in the literature of the role of the knowledge administrator, this literature does not provide a clear picture that integrates this organisational role into knowledge transfer frameworks. A further contribution of this paper is to highlight the importance (perceived by knowledge system users and reflected in the framework model) of the potential relationship between repositories and the knowledge administrator’s role.

The framework developed in this paper provides a systematic and holistic perspective of knowledge transfer implementation, viewing knowledge transfer as an interactive and dynamic process. In summary, the salient features of the resultant framework of knowledge transfer are the following:

1. The role of a third actor in the knowledge transfer process – the knowledge administrator – is made explicit.
2. The framework emphasises the ‘hybrid’ nature of much knowledge transfer; neither the personalisation approach nor the codification approach alone is enough to carry out the transfer of knowledge in all the situations.
3. Knowledge transfer and knowledge storage are interlinked; the connectivity of knowledge transfer and knowledge storage gives an opportunity for knowledge contributors to deposit the knowledge they possess into a computer-assisted repository and for knowledge users to retrieve knowledge from the repository without directly interacting with the original source of the knowledge.
4. The role of the knowledge administrator equivalent is not simply as an additional actor in the knowledge transfer process to facilitate knowledge transfer and maintain a knowledge repository but also to help operationalise the framework per se: the knowledge administrator can take a more active role in encouraging organisational members to take part in knowledge transfer activities through advising knowledge contributors to deposit, and subsequently update, knowledge in a repository and assist prospective knowledge users in finding the right source of knowledge be it knowledge contributor or knowledge repository.

We conclude that a ‘hybridisation’ of knowledge transfer approaches, revealed by the framework, offers some promise in organisational applications. The proposed hybrid approach to
knowledge transfer can be claimed as innovative and novel in its empirical findings. For example, Desouza & Evaristo (2004), drawing on the work of Hansen et al. (1999), addressed the issues of knowledge management systems, making a case for a hybrid model in managing knowledge in distributed projects, but their emphasis is on systems architectures, is restricted to observations concerning project management and offers no empirical foundation. This paper extends existing knowledge transfer frameworks through an examination of the hybridisation of knowledge transfer approaches (i.e. personalisation and codification) and also by explicitly incorporating the knowledge repository and knowledge administration functions, which help facilitate the effective transfer of tacit and explicit knowledge. In essence, this conceptual framework of knowledge transfer describes and prescribes organisational engagement in knowledge transfer activities and also supports the connectivity of knowledge storage and knowledge administration within the knowledge transfer process.

As mentioned earlier, this knowledge transfer framework has been developed based on insights from the existing literature along with the findings drawn from the single research setting. The case organisation is representative of a typical, mature high-tech multinational industry. Practitioners and researchers can conceptualise how such an integrated approach to knowledge transfer can be implemented in other settings. Further application of the framework would help to validate its applicability in such organisational settings and indicate the extent to which the hybrid framework described here is sound and robust. In this project, the nature of the knowledge is often technical, which might have implications for its storage and retrieval. Consideration of hybridisation in the project management sphere (Desouza & Evaristo, 2004) and in the global high-tech environment described in this project might be said to embrace a ‘sharing’ culture, in which neither external incentivisation nor fears about lack of openness are serious inhibitors to knowledge exchange. Future work might focus on less ‘open’ environments. The idea of knowledge transfer mechanisms that are more or less managed – for example, well-structured computer-based repositories compared with, say, ill-structured communities of practice where exchange is less obviously managed – presents another interesting contrast. The precise nature of the knowledge repository within organisational settings (in the context of our practical knowledge definition) requires further examination, particularly in respect of an organisation’s core activities and working practices. The role of the knowledge administrator is ill-defined (Jasimuddin, 2006) and will undoubtedly differ from organisation to organisation. With these factors in mind, future work might be developed using five constructs, namely knowledge (tacit and explicit), actors (knowledge contributor and user), transfer mechanism, knowledge repository and knowledge administrator, as a basis for surveying different organisational settings.

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