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Knowledge Management and Governance in Higher Education

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Knowledge Management and Governance in Higher Education

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Abstract

This paper details findings from a study in the University sector which sought to identify the location and processes of knowledge creation necessary for the effective governance. It explored the differences between the stated location of, and systems for, knowledge production and the actual practice occurring within the organisation. Data was collected via observations of key committees and semi-structured interviews with committee members. This data suggests that knowledge creation occurs in the informal relationships between committee members and is located more in the operational activities than within the senior hierarchy. Implications for governance are discussed in terms of effective knowledge management.

Keywords

Knowledge Management, Governance, Higher Education

Introduction

Knowledge, its creation, development, dispersion and institutionalisation in organisations is a complex topic and one that attracts much attention in both academic and management literatures (Spender 1996; Davenport and De Long 1998; Davenport and Prusak 1998; Choo and Bontis 2002). The relationship between knowledge and organisational performance is often drawn and particular reference is made to the importance of knowledge in contexts of ubiquitous and increasingly fast-paced change (Prusak 2001). University governance is not immune from the impacts of this environmental flux, indeed, the ability of higher education institutions to adapt to their contexts is cited as critical to their continuing relevance and effectiveness in contemporary settings (Teodorescu 2006). Understanding the nature and role of knowledge in this relationship is a central concern in the current global interest in governance.

This paper explores the role of Academic Board and University Council as sites of knowledge production in uncertain times. Based on earlier work on constructions of knowledge in these forums (Blackman, Kennedy, Richardson and Swansson 2006) and focused on information and knowledge flows within and between the two entities, this paper discusses opportunities for improving the University's performance through a shift in focus in its governing bodies. While we do not claim that the issues that limit knowledge creation in the University are simple ones, we do suggest that the introduction of notions of creativity and imagination to the discussion of University governance would highlight opportunities for organisational improvement.

Knowledge management in uncertain times

Discussion of knowledge in organisations mirrors the preoccupation in contemporary organisational theorising with the impact of ubiquitous and increasingly fast-paced change (Prusak 2001). Impetus for the emergence of a knowledge focus in organisations and its subsequent development through knowledge management theory and practice grew out of the identification of knowledge as a strategic asset of capital value in individuals, corporations and nations (a range of perspectives are offered in the work of Spender 1996; Davenport and Prusak 1998; Choo and Bontis 2002). It is now widely accepted that knowledge continues to be a principal force of production as it has been for recent decades (Lyotard 2004). The literature on knowledge and Universities currently focuses on the role of Universities as creators of new knowledge via research and education (Scott 1997; Sizer 2001), but it should not be forgotten that Universities are organisations which will need to utilise knowledge to develop competitive advantage as any other business entity would need to do (Cutcher-Gershenfeld 1998; Nonaka, Toyama and Nagata 2000).

In describing the development of knowledge management authors often begin by defining two distinct perspectives which pivot around (a) civilisations' management of tacit knowledge through focused learning (Wiig 1997: 9) or (b) management of explicit knowledge through the development of libraries (Ives, Torrey and Gordon 1998; Scarbrough, Swan and Preston 1999). These two understandings of knowledge management reflect the dual paradigm (Gloet and Berrell 2003) described by Swan and Scarbrough (2001: 917) as a Cartesian separation between 'knowing subject' and 'knowable object'. This separation was apparent in definitions of knowledge and knowledge management in the organisational literatures throughout the 1990s and continued to dominate discussion in the field into this decade.

Contemporary perspectives on knowledge management

In recent times, however, the literatures have become increasingly preoccupied with exploring the multiplicity of conceptions of knowledge and the relationship between these various epistemologies and the practices of knowledge management, recognising more holistic and embodied perspectives (Nonaka and Toyama 2000; Elkjaer 2004; Thompson and Walsham 2004; Søndergaard, Kerr and Clegg 2007).

A new age of knowledge management has evolved out of the recognition of the complexity and elusiveness of knowledge, its situatedness, plurality, and entwinement with human understanding and interaction (Spender 1996; Cross and Israelit 2000; McElroy 2000; Snowden 2002; Scarbrough 2003; Wenger 2004; Kennedy 2007). The value of knowledge for organisations and their members is increasingly linked with its construction (Visser 2005) within rapidly changing, often ambiguous and very specific contexts as well as in social settings (Stacey 2003). Knowledge is discussed in the literatures as being held between individuals and collectives, within organisational processes and systems, in stock as well as in flow. Recognition of the personal yet collective nature of knowledge is leading to the consideration of personal and sociological needs of individuals and collectives in knowledge genesis and learning. Additionally, the influence of political, structural and cultural organisation environments on the phenomenon of knowledge (Elkjaer 2004) and its availability and use to the organisation are similarly brought to the fore in 'third age' (Snowden 2002: 100) or 'the new knowledge management' (Firestone and McElroy 2002: 2).

This developing focus on the epistemological underpinnings of knowledge management theory and practice progresses alongside developments in complexity theories and their application to organisational contexts. Complexity theories focus on the dynamics of

interaction, self-organisation, connection, holism and emergence (Anderson 1999). A complexivist view shifts focus from assumptions of clear and linear relationships between action and effect, reductionism and direction to the emergent outcomes of nonlinear interaction.

While the theoretical development of knowledge management develops quickly alongside the growing complexity and increasing pace of change in organisational environments, organisational practice may lag. Universities have always recognised their role as the producers of knowledge through research (Scott 1997; Sizer 2001) however, there is little evidence that the structures which have traditionally maintained the organisation's role in teaching and developing research knowledge for dissemination have evolved to support the institutions' increasing need to continually develop and adapt and to actively engage in innovation and knowledge creation in their governance and operation.

The perceived divide between developing theory and practice in the higher education sector prompted this current investigation of knowledge processing within the single case of an Australian university.

Methodology

The subject of this research and its epistemological underpinnings align it with a qualitative approach because the focus is upon developing new understandings and possibly new theory (Creswell 2003). Qualitative methods are useful in explorations of understandings, for uncovering novel insights and for accessing intricate details, thought processes and emotions (Strauss and Corbin 1998: 11).

Following Yin (1993; 1994) we chose to use a qualitative case study for this deep investigation as an in-depth investigation into a specific set of circumstances in a particular context was required. Yin cites three conditions for the design of case studies: the type of research question posed, the extent of control an investigator has over the phenomena being studied, and the timeliness of the events. A case approach was most appropriate for this study as it fulfilled all the conditions outlined. The study sought to determine whether, and if so how, knowledge is created, shared and transferred within University structures in order to explore the application of contemporary theories of knowledge management and areas for potential improvement and enhanced systems for knowledge development. Those involved in the research, whilst affected by the University governance processes, were not in a position to influence them, and consequently experimental design was neither possible nor appropriate. Moreover, the University was undergoing rapid and far reaching change which meant that a focus on contemporary events was critical.

This was an instrumental (Stake 1995), exploratory (Yin 1994) study, in that its purpose was to provide insight into an issue thereby enabling deeper understandings of the role of knowledge in governance in higher education. It is anticipated that this study will work as a prelude to further research. The investigation of phenomena within a single case is supported by Yin (1994; see also Tellis 1997) who argues that single case studies are particularly appropriate where the observer has access to a novel, previously unexplained phenomenon. The organisation at the centre of this research is in flux. A critical and organisation-wide change is in implementation and this provided us with a unique opportunity to investigate the processes and mechanisms in place and their impact on the change attempts. In this case, it is not the comparison of data with other organisations that gives it meaning, but comparison to current theory and the ability to create novel ideas and, possibly, new theory from the data

itself (Eisenhardt 1989; Yin 1993; Stake 1995). This fits with the current research purpose here which is not to generalise from this single case, but to develop theoretical perspectives, which might contribute to understandings in broader terms.

Comparisons between data and theory ensure that there are several different sources which enable those analysing the data to focus clearly upon the unit of analysis and the important issues relevant at that level. In this case, the unit of analysis is the University's governance structures and processes. All data collection was aimed at enabling an analysis of knowledge within these governance frameworks. Multiple data sources were used: documentary records, observation of University Council and Academic Board as well as semi-structured interviews with some members of the committees. Collectively, the data sources enabled triangulation, an important strategy in case study design (Yin 1994; Tharenou, Donohue and Cooper 2007). A clear focus on the unit of analysis in concert with the triangulation of data sources helps to overcome concerns regarding the credibility of subjective research techniques (Sturman 1999: 109) which arise from the traditional scientific focus on objectivity.

Concerns about objectivity are addressed in much qualitative research by the claim that all observation demands personal judgement and the assertion that credibility and precision may be obtained through disciplined subjectivity. This precision requires that evidence is available for scrutiny, conveys credibility, and is trustworthy. By using different evidence and data, different lenses can be applied which enable deeper insight into, and greater validity of, the data (Winter 2000). The concepts of 'accuracy' and 'truth' can be addressed through discussion of the relationship between the findings from the various data sources. The greater the range of data sources the more opportunities there are to cross-reference and establish where there are points of commonality and difference for greater development later. The collection of data in this study was aligned with Yin's (1994) principles: firstly, use multiple sources of data; secondly, create a case study database; thirdly maintain a clear chain of evidence that can be used to explain the findings.

The research described here was designed to gain a better understanding of the way that knowledge was created by, and shared between, the strategic University committees. The objectives were to find out whether, and if so how, knowledge was created by University Councils; to establish whether, and if so how, knowledge was being shared and transferred between University Council members and the Academic Board; and, lastly, to determine what types of knowledge were being used to influence decision-making. It was determined that to achieve these objectives the data would need to demonstrate what types of knowledge were present, when and where they were discussed, who was claiming to have knowledge, what was being claimed as knowledge, and when and where they were being used as a basis for the decisions made. Moreover, there would need to be a determination as to whether knowledge was being shared and transferred between University Council members and the Academic Board and if so how. In order to clarify the issues of decision-making it was important to capture when and how different types of knowledge were being shared and by whom, for both the Academic Board and University Council, and identify who were the knowledge brokers.

To capture this data document analysis was used to establish the theoretical patterns. This was important as it gave part of the theoretical analysis to be used within the case. Then a literature review of knowledge management in general was undertaken. This too was to be used as the basis for theoretical comparison to enable the results to be applied – not to other cases but the potential implications of the current theory. The primary data was then collected through observations of both University Council and Academic Board and interviews with

some members of these committees. Four observations of each committee were undertaken, totalling in excess of 36 hours of observation. The observers used protocols designed to record where knowledge was recognised as being used, shared or created. They then noted the type of knowledge being discussed and from where it emerged and to where it was transferred. We chose to work with two different models of knowledge creation as they develop different, but complementary, conceptions of knowledge development and sharing within organisations. We used these ideas as frameworks for the observations and analysis in order to look at whether knowledge creation was being undertaken according to these models and, if so, how it is enabling knowledge development and, if not, why not and what is the impact.

Davenport and Prusak (1998) concentrate upon the transformation of information in a relational sense and how that becomes altered and creates new knowledge. They argue that for information to become knowledge it must address questions in four areas:

- **Comparison:** how does information about this situation compare to other situations we have known?
- **Consequences:** what implications does the information have for the decisions?
- **Connections:** how does this piece of information relate to others?
- **Conversations:** what do other people think about this information?

By observing where the 4C's are present in dialogue the location and types of knowledge creation can be established.

Cook and Brown (1999), on the other hand, argue that there are four distinctive types of knowledge based upon the numbers involved and the locus of the knowledge (i.e. internal or external to those holding it) (see figure 1). They argue that for new knowledge to be created the knowledge needs to be moved from square to square (the order may vary) in order to generate new knowledge in the other squares.

	Individual	Group
Explicit	Concepts	Stories
Tacit	Skills	Genres

Figure 1: Four Forms of Knowledge

Source: Cook and Brown, 1999

This dance generates the process of knowing which leads, in turn, the generation of something new. We observed what types of knowledge could be traced for each square and whether there was evidence of the dance. These models provided structure to data collection, but further notes were taken where data did not conform to the model. When this data was partially analysed, semi-structured interviews with some members of University Council and Academic Board were undertaken in four interviews of one hour each. Some were members of both committees which helped to give explanations of observed relationships between the committees. Areas of discussion included whether participants felt that knowledge creation was a role for University Council and committees and if so, how and why this occurred. The study was endorsed by the University's ethics committee and the observations of committee meetings and transcripts of interviews were transcribed and analysed using the

NVivo qualitative analysis tool. Three key themes emerged in the data and these were further investigated through interrogation of the full data set: where and if knowledge is being created within the University governance structures; whether knowledge is being effectively distributed throughout the University; and the role of knowledge within University Council and Academic Board.

Findings and discussion

We will firstly comment on the application of the knowledge creation frameworks to the data collected and then discuss the themes more generally. What was most striking was how little of the observation data could be classified against either of the models. In terms of the 4C's, out of all the observations there was no evidence of consequences, no connections and only one incidence within the University Council of comparisons and conversations and this occurred during the same agenda item. It was clear that knowledge was not being created in these ways. There was evidence of some development of the 4C's within the sub-committees – in particular comparisons and conversations were reported as occurring regularly.

When considering the Cook and Brown model we concluded that there was no managed, and almost no incidental, movement of one knowledge type to another. In committee there is some movement from individual explicit to group explicit in terms of sharing of experiences and ideas, and one could argue that the board papers developed for meetings were also a movement to develop organisational stories which would share knowledge. However, the content of the papers does not encourage the transfer or development of knowledge, rather the outcomes of conversations are reported with no context or implications of the complexities of the conversations that occurred. In terms of the way that knowledge is conceived, the importance of recognising the situated-ness and multifaceted dimensions of knowledge are being ignored. As a result of this, our analysis needed to change and so we considered the thematic coding in order to develop our ideas.

The findings of this study highlighted a tension between contemporary theory on knowledge development in complex organisations and the performance of University governance structures as knowledge creating entities. The findings illustrate that the University committees actively disengage themselves from roles of knowledge production, relying instead on reinforcing organisational conversations which position these governing bodies as sites for controlling, monitoring and processing knowledge developed in other parts of the organisation. The rhetoric that supports this positioning relies on the assumption that subcommittees are focused on the creation of knowledge which will be available to the governing bodies to support their endorsement of subcommittee decisions. A serious problem is discovered, however, in this study's findings that the subcommittees do not make available the knowledge used to support their recommendations. The findings show a governance structure characterised by conformity and driven by process, a structure at odds with theory available on the competitive advantage of knowledge creating companies.

Patterns and relationships which emerged in analysis of the data illustrated that both Academic Board and University Council perform predominantly as knowledge processing bodies – transferring commodified knowledge between structures and members (Blackman et al. 2006). The argument is made by members of Council and Academic Board that knowledge creation should not be occurring in these forums, that their role is to ratify and confirm knowledge and decisions that have been transferred to them. They would argue that knowledge creation happens in the sub-committees that feed into Council and Academic Board. Members of these committees discussed the need for innovation, for 'think tanks', new

strategies, and collaboration, however, these were discussed in terms of the committees' role in arranging workgroups to do this thinking and collaborating. There was no discussion in Academic Board or at Council that indicated that these groups considered these active development roles to be ones they should assume.

This illustrates that the intended model for knowledge development and transfer was that knowledge would be created within sub-committees and then transferred to relevant governance structures in the University. However, the data indicated that this was not what was actually occurring. Sub-committees might be creating knowledge useful to the organisation's progress and using this to make recommendations and decisions, but the recording mechanisms reduce the transfer to bare information, stripped of the context and process of knowledge production and of any meaning. What is finally reported and ratified at University Council and Academic Board are a series of decisions, which enable control but not knowledge development.

Given that the literature and recent research recognises that knowledge is not that which can be easily transferred through channels such as committee minutes, then there must be a recognition that any knowledge that may be created in these sites is not transferred to Council and Academic Board effectively. Support for this finding is provided when one tries to track the knowledge used to make decisions, an activity which proves to be impossible. There is a clear audit trail of decisions, but not the reasoning and understandings underpinning these decisions.

An important implication of this finding is that any new knowledge created at committee resides solely within the individuals who took part in any decision-making process – primarily tacit and mostly unrecorded. When new decisions are being made, dialogue in committees will enable previous knowledge to be used providing those individuals are still with the organisation and they are involved in the decision making process. If not, the competitive advantage that such knowledge might provide will be lost. Whilst novelty and innovation may occur as a result of the inflow of new people and new ideas, it is also possible that the current structures and precedent will lead to a recreation of past ideas with no experience of the previous utility.

A related knowledge management problem in this case, and a strong theme in the data, is that the processes at Academic Board and at Council are focused on attempting to restrict the impact of external change on the organisation by increasing control mechanisms rather than by innovating to adapt to environmental turbulence. Examples obtained through observation highlighted the committees' preoccupation with monitoring the progress of draft policy, and approving decisions made elsewhere with very little comment or challenge. Presentation of reports, feedback from committees and papers tabled for review consumed the vast majority of time and effort in both committees. While there was some development of definitions which required minimal creative discussion, generally committee process limited knowledge development, placing the focus instead on information transfer. This focus was reinforced within the committees, members being censured at times for challenging the information presented to the group.

The structures' focus on cementing process and maintaining stability is in direct contradiction to the current theoretical discussion of appropriate knowledge strategies in environments of flux. These strategies, similarly, appear antithetical to improvements to the university's progress in increasingly uncertain times.

Implications for effective knowledge management in the University

An important shift in improving effective knowledge strategies in the organisation will involve the reconceptualisation of the role of knowledge in the University. For there to be a change in the way that Universities undertake knowledge management a move is required away from a perspective focused on the output of knowledge through research and education to one which accommodates knowledge creation as an everyday activity which is critical to its adaptation to the changing environment and to its success. According to Fahey and Prusak (1998) one of the most common errors in effective knowledge management is not identifying or discussing what is meant by 'knowledge', their argument being that it is impossible to manage something that is not understood. Universities, like all organisations with strategic intent, need to engage in a conversation which clarifies the nature and the role of knowledge in their development.

The nature of knowledge is represented in the literatures through rich epistemological discussion which highlights its complexity. Recognition of the complex nature of knowledge would prompt the rethinking of governance structures so that this complexity can be accommodated. The importance of the creation and distribution of knowledge rather than the transfer of information would become the priority. In practical terms, this should lead to a change in the membership, structure and recording of sub-committees. For any decision the likely whereabouts of knowledge relevant to it would need to be considered to enable new connections and conversations to occur (Davenport and Prusak 1998; Cook and Brown 1999; Teodorescu 2006). Should the current sub-committees membership not reflect an opportunity for such knowledge to emerge, new members would be sought in order to promote novelty and innovation. The structures to support this knowledge development will necessarily be more fluid and emergent, enabling complex networks that are created and disbanded as knowledge is created and distributed in response to changes in the organisational context.

This self-organising membership and structural redesign accommodates adaptation, providing opportunities for multiple connections and interactions, strategies which promote the emergence of new knowledge and the holistic representation of knowledge as central to organisational performance. In these fluid structures, what is recorded has to change. Whilst decisions are important, the meaning making, knowledge used, knowledge created, and new connections made are equally important. Consequences, both planned and emergent, will also need recording in order to track the patterns of knowledge creation and distribution that contributed to final outcomes. The importance of being able to review knowledge, ideas and understanding, as well as decision points and information transferred needs to be recognised if knowledge is to be used to support effective management. Knowledge management becomes an intrinsic part of the University's governance rather than the recording of commodified information held in minutes but with no contextual richness to explain how it emerged.

Conclusion

This paper explored the knowledge creation and distribution processes contributing to university governance in contexts of change. It has been argued that in this case organisation knowledge creation is not occurring within University Council or Academic Board and that what is being distributed is mostly information about decisions already taken with little underpinning explanation. We progress from this representation of current practice to introduce what the literatures would suggest is more a more appropriate knowledge focus for governing bodies in the current higher education climate. It is argued that for effective governance, the role of knowledge and some understanding of what it is, need to be actively

discussed in these forums. This would ensure that processes are developed that enable the organisation to benefit from the knowledge located within the wider University.

Progressing from the findings of this study and their comparison with contemporary theory, it is recommended that the University recording procedures and mechanisms are changed to reflect not only the decisions made, but also the knowledge and ideas used to develop such decisions. The focus will change from control to challenge, where the role of the governance structures shift from cementing policy to encouraging innovation within both the committee structure and the distribution and capture of ideas informing decisions throughout the University.

Overall, this paper, whilst limited in being a single case study, indicates that there needs to be a greater awareness of the importance of knowledge not just as a product of universities' research, but also as a source of competitive advantage that needs to be managed within University governance processes.

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