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DIVERGENT APPROACHES TO KNOWLEDGE AND INNOVATION IN THE PUBLIC SECTOR

SHORTENED TITLE: DIVERGENT APPROACHES TO PS KNOWLEDGE AND INNOVATION

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Abstract

This review of the knowledge management literature reveals differences between mainstream and Public Sector literatures. This is demonstrated in the predominant representation of managerialist perspectives of knowledge in organizations in the Public Sector literature and the relative lack of reference to contemporary practice-based perspectives. It is argued that the resulting gap has implications for Public Sector innovation and effectiveness. The review underlines the paucity of Public Sector case studies that present organizational practices as emergent, self-organizing sites of knowledge in action.

Keywords: Public Sector Management; Knowledge Management; Practice-based Approaches; Case Studies; Literature Review

INTRODUCTION

This paper reviews the public sector management (PSM) literature with a view to establishing the ways, if any, in which knowledge management (KM) is seen to contribute to good knowledge practices and innovation in the public sector (PS). It focuses on management approaches to knowledge and innovation in the PS, as these are reflected in the literature, particularly the potential gap between traditional approaches to KM and practice-based theories of self-organization, within the context of PS innovation and change. Burford et al. (2011) noted the tensions and even dysfunctions that can occur when inappropriate interpretations and actions result from adherence to traditional management theories in situations where practice-based theories have greater influence.

The paper is prompted by the need to address government interest within the English-speaking world in the fostering of knowledge creation and innovation in the PS. The links between organizational knowledge and its management, on the one hand, and innovation, on the other, are often highlighted in the KM and PSM literature. Indeed, the benefits of KM activities for the improvement of organizational innovation are repeated in the literature, to the point that knowledge and innovation have even been equated (Swan, 2007, p.147). A 2009 Australian Government publication sees dissemination of corporate knowledge and the breaking down of organizational 'silos' as part of the effort to enhance the 'innovation dynamic' in the PS (ANAO, 2009, p.11). In a book specifically on KM in the PS, David McNabb (2007, p.23) refers to KM as more than a management theory – it is 'a set of tools, procedures, and activities, held together by a unifying philosophy', namely '*sharing knowledge for public sector innovation.*' The driver for this is seen as government reform of the 1990s, which required agencies to innovate. Geoff Mulgan's influential publication on PS innovation (2007, p.27) sees KM in terms of learning networks and the diffusion of innovations. A British publication on fostering PS innovation, while making no explicit mention of KM, discusses how knowledge is handled, for instance, the bringing together of organizational knowledge with 'knowledge of wider settings which will spark off radical ideas for change' (Bessant, Hughes & Richards, 2010, p.18).

The paper by Burford et al. (2011) noted the extent to which established approaches to the management of knowledge work have been heavily influenced by strategic management, with its focus on directing work and representing intended activity in plans, strategies, policies, standards, and other formulated approaches. Strategic management continues to be regarded as a set of activities through which identified goals drive a rational process of implementation. In this process, the determination of

goals and the implementation of action are seen as separate, with planning preceding activity (Burford et al., 2011). In contexts in which organizational effectiveness lies in the production and reproduction of standardized materials and services, this philosophy and its attendant practices are entirely appropriate. In contemporary environments, however, there is a pervasive and increasingly critical focus on the value of new knowledge, innovation, continual change, organizational flexibility and creativity and on the role of the employee in their achievement.

In attending to knowledge activities in organisations, recent literature (for example, Stacey 2007; Ehin 2008; Hamel & Breen 2007) is critical of the uptake of traditional management theories. It questions established thinking and dominant discourse about knowledge work and innovation in organizations. Greater attention is given to organizational knowledge from the perspective of activity and the situated achievement of complex tasks (Blackler 1995; Brown & Duguid 1999; Cook & Brown 1999; Orlikowski 2002; Tsoukas 2005). Practice-based theories (Gherardi 2009a; Gherardi 2009b; Corradi, Gherardi & Verzelloni 2010) offer an alternative view of knowledge in organizations, in which learning and knowing are embedded in everyday practices and experience, with knowledge emerging from and contributing to workplace activity. The notion that knowledge emerges in practice in the absence of direction and control is acknowledged and accommodated.

Thus, on the one hand, traditional management theory privileges formalized and cognitivist processes (planning, measuring, comparing, tracking, controlling) while, on the other, practice-based theory privileges emergent, self-organizing, spontaneous activity (problem-solving, innovating through work and sense-making). Whereas high-level strategy presumes the separation of intention from performance, practice-based studies presume the integration, even entanglement, of the two.

The current paper reviews the PSM literature with a view to establishing whether the separation of planning and activity and the rigidity of traditional management approaches to knowledge and innovation in organizations is reflected there, as it is in the mainstream literature. In particular, it also seeks to establish whether or not KM remains a relevant management lens for the fostering of knowledge and innovation in the PS and whether there are PS-specific case studies that attend to the gap between high level strategy formulation and intention and the self-shaping, evolving and negotiable nature of practice.

The review focuses on two principal topics: first, the extent to which there is a distinct literature on KM in the PS and a corresponding set of issues that differentiate the public from the private sector and,

second, management approaches to KM in the PS as they are reflected in the literature. It pays special attention to case studies, which provide insight not only into relevant practices but also into the management approaches that characterize KM in the sector and the ways in which knowledge interventions in the PS have been interpreted. The paper identifies specific case studies that might help develop a productive approach to the study of the interaction of KM strategies, knowledge practices and innovative behaviours in PS organizations, and discusses the main findings of the review.

LITERATURE REVIEW

The review sets out to establish (1) whether there is a distinct literature on KM in the PS, (2) what approaches PS organizations have taken to the management of knowledge and innovation and (3) whether there is an obvious tension between traditional management of knowledge and practice-based perspectives. The literature searches initially took the form of using the obvious search terms such as 'knowledge management', 'public service', 'government', 'innovation', 'practice' and 'case study' in key retrieval fields such as subject descriptor. It also attempted to narrow the search to PSM literature, however, by delimiting some searches to resources that included terms such as 'government' or 'public AND sector' in the journal title field.

The review itself begins by examining the idea that approaches to knowledge and innovation are significantly different from those in the private sector then goes on to identify the management approaches documented in the PSM literature on KM, organizational knowledge and innovation.

Differentiation between public and private sector contexts

One of the recurrent themes is the assertion that organizational learning and knowledge are underrepresented in the PS literature, compared to the larger literature that deals with the private sector (Kennedy et al., 2012; Arora, 2011, p.165; Rashman, Withers & Hartley, 2009, pp.464, 466; Hazlett, McAdam & Beggs, 2008, p.57; Willem & Buelens, 2007; Cong & Pandya, 2003, p.25; Fry & Griswold, 2003, p.311; Bate & Robert, 2002). The 'systematic review of the literature' by Rashman, Withers and Hartley (2009) states that 'government policy initiatives for the reform of public organization have largely failed to promote knowledge creation' (2009, p.466). Citing earlier studies, Hazlett, McAdam and Beggs (2008, p.57) refer explicitly to 'a paucity of studies that empirically probe the practice of KM in the public sector as a situated discourse', rather, they add, 'than being an extension of private sector development'.

Cong and Pandya (2003, p.25) make the general claim that governments always lag behind and that management theories are first tested in large companies then, once they are accepted, spread to other sectors, including the PS. A recent paper by Kothari et al. (2011) states that health care organizations, as late adopters of KM, are now starting to implement and evaluate KM strategies and, despite differences in contextual conditions, have a lot to learn from KM experiences in the private sector. The Luen & Al-Hawamdeh study of KM in the police service notes (2001, p.312) that in Singapore it is largely multinational companies that were leading in terms of KM initiatives, while PS organizations were only beginning to demonstrate interest. McNabb (2007, p.15) states that PS KM 'remains very much a work in progress', in spite of what many consultants might say.

On the other hand, in 2000, Karl Wiig, a well-established writer on KM, was claiming that KM, although 'in its infancy', was playing a key role in making public administration function more effectively. Peter Griffiths (2009, p.1) suggests that PS KM grew in the late 1990s 'in parallel with – but initially separate from – the development of the knowledge management (KM) concept in business.' Moreover, not all studies find the PS lagging behind the private sector. McAdam & Reid (2000) compares public and private sector perceptions and use of KM and concludes that (at least in 2000) KM was more developed as a management philosophy in the PS than it was in the private sector. In particular, it refers to PS being more advanced than the private sector in terms of knowledge construction, 'helped by the fact that public sector operation is based on social interaction and by the recent focus on improving efficiency and reducing costs.' (2000, p.327) Even if this was the case, however, it is not clear whether PS KM remains better developed as a management philosophy or whether it has been overtaken by private sector KM.

It is also worth pointing out that it is difficult to make generalizations about the whole PS. There is no one type of PS organization (Willem & Buelens, 2007, p.583). Some areas of the PS may have been subjected to a KM lens more than others, notably the health sector, to which a knowledge-based view is not a novel one (Bontis & Serenko, 2009, p.277). Chua and Goh (2008, p.337) also refer to a 'plethora of KM projects implemented in the healthcare industry', almost all of which report favourable outcomes (not detailed in their paper). Even within this specific sector of the PS, however, not all agree with this view. As recently as 2011, Kothari et al. portray KM as a business sector development and describe the health sector as 'late adopters of the KM concept'.

Even if it is true that organizational learning and knowledge are underrepresented in the PS literature, this is not evidence that KM practice lags behind in the PS. A 2007 survey of KM in the PS, with

respondents from thirty-two countries, most of them developing countries, suggested that all respondents were aware of KM and had programs in place, or were in the course of implementing KM programs or were examining the need for them (Yuen, 2007). There is no mention of innovation, with respondents seeing the main motivators for KM as improvements in efficiency and productivity (90%) and minimizing of duplication of efforts (75%), with other key factors being improvements in transparency, in outward sharing of information and in working relations and trust within organizations (Yuen, 2007).

There is some suggestion that government responses to terror attacks may have been a significant driver of KM initiatives in the PS. Bontis (2007, pp.157-158) refers to a 2003 survey of 132 government organizations from twenty OECD countries that demonstrated a 'startling increase in KM activity' following the al-Qaeda attacks of September 2001. In such cases, however, the focus is largely on increasing the capacity of government to share information across agencies. In a case study that purports to be about KM modeling in PS organizations, Girard and McIntyre, for example, tell a reasonably familiar story, that of government concern about terrorism and threats to public security following the events of 2001, leading to the formation of the CRBN (chemical, biological, radiological, nuclear) Research and Technology Initiative (CRTI) in Canada and the need, as Girard and McIntyre see it, to span organizational and disciplinary boundaries and break down traditional silos (2010, pp.72-73).

Similarly, Desouza's study of public sector networks in the US intelligence community discusses the problems of inter-organizational knowledge transfer, which turn on the amount of effort required 'to code knowledge in a language that retains the value and meaning of the original insight' (Desouza, 2009, p.1245). The concern with inter-departmental boundary spanning and the sharing of common languages are central themes of Patrick Lambe's book, *Organising Knowledge* (2007), except that his argument is centred around the failure of government agencies to exchange information on a dreadful case of child abuse.

The interest in KM represented in inter-organizational boundary-spanning, however, has little or nothing to do with leveraging knowledge and innovation within the agencies themselves, as the Yuen (2007) survey demonstrates. One should be careful, therefore, about seeing the interest in knowledge sharing mentioned here as indicative of the health of KM in the PS.

Are there significant differences between the public and private sectors that have any bearing on organizational knowledge, innovation and knowledge management? The main factors to emerge from the PS literature are:

- the relative lack of autonomy in the PS (LaPalombara, 2001, p.560; McNabb, 2007, p.5) and high levels of public accountability (Kothari et al., 2011; Rashman, Withers & Hartley, 2009, p.265) and control (Chiem, 2001)
- accountability of PS agencies to a broad range of individuals and organizations (LaPalombara, 2001, p.559; McNabb, 2007, p.5; Bontis, 2007, p.161)
- the vague, diffuse and often contradictory nature of public policy and objectives (LaPalombara, 2001, p.559; McNabb, 2007, p.5; Willem & Buelens, 2007, p.584; Bontis, 2007, p.160), which may reflect the previous point
- the extent to which PS organizations are driven by external agencies (LaPalombara, 2001, p.560; McNabb, 2007, p.5) and by political ideologies and partisanship, as distinct from 'objective criteria' (LaPalombara, 2001, p.560), and are subject to higher levels of political interference than private sector organizations (Kothari et al., 2011, in a reference to the health sector)
- the extent to which pressure for change is driven by government policies and performance pressures, as distinct from market pressures (Rashman, Withers & Hartley, 2009, p.265), and demand for efficiencies and cost reduction (McAdam & Reid, 2000, p.327)
- the relative inability of PS agencies to design financial rewards for staff (Chiem, 2001; McNabb, 2007, p.5; Bontis, 2007, pp.160-161)
- the relatively lower levels of competition in the PS (Chiem, 2001; Bontis, 2007, p.160), with PS developing stronger networks links than their private sector counterparts (Rashman, Withers & Hartley, 2009, p.480), especially in the health sector (Kothari et al., 2011)
- the bureaucratic, hierarchical nature of public sector organizations (Hazlett, McAdam & Beggs, 2008, p.61; Marilena & Elena-Mihaela, 2008, p.167; Bontis, 2007, p.160), although Willem and Buelens refer (2007, p.583) to the ambiguity of empirical evidence
- a PS culture that is averse to risk taking (LaPalombara, 2001, p.561; Bontis, 2007, pp.164-165)
- the creation of complex inter-organizational structures in the PS (Rashman, Withers & Hartley, 2009, p.465)
- the knowledge intensive nature of PS organizations (Marilena & Elena-Mihaela, 2008, p.167), with staff seen as significant repositories of knowledge (McAdam & Reid, 2000, p.319)
- the opportunity for PS employees to transfer across departments, with the loss of tacit knowledge this entails (Marilena & Elena-Mihaela, 2008, p.167)
- the importance of knowledge sharing to the improvement of public services (Rashman, Withers & Hartley, 2009, p.465)
- the greater prevalence of knowledge hoarding in government bureaucracies (Bontis, 2007, pp.163-164), contrary to the previous point
- the fact that PS agencies may be forced to have their failures publicized (McNabb, 2007, p.5)

Some of the factors listed here support the stereotypical view that the PS lags behind the private sector in terms of innovation: for instance, that the PS emphasis on 'command and control' and administrative red tape act as a barrier to free information flow (Chiem, 2001) and that the vertical hierarchies that characterize the PS have a negative impact on innovation and team-work (Marilena & Elena-Mihaela, 2008, p.167). According to LaPalombara (2001, p.561), conditions such as the relative lack of autonomy, high levels of PS accountability and the diffuse and contradictory nature of public policies, militate against initiative, innovation and risk-taking and encourage conservatism.

Other factors, on the other hand, encourage innovation. Rashman, Withers and Hartley (2009, p.265) argue that pressure for PS innovation and learning stems from factors such as stakeholder expectations and the development of complex inter-organizational structures, while McAdam and Reid (2000, p.327) see government demand for efficiencies and cost reduction as key factors in PS approaches to knowledge construction.

Other factors appear to be double edged. The relative lack of financial rewards, for instance, is seen as a factor that might inhibit PS organizations from being as proactive in their knowledge interventions as their private sector counterparts yet, on the other hand, lack of the financial drivers that characterize the private sector may mean that PS agencies are more likely to develop network links than private companies, since they are less likely to view other agencies as rivals. It is also worth noting Marilena and Elena-Mihaela's claim that this is changing, however, based on the argument that there is greater competition between agencies, encouraged by the process of decentralization and increased international competition (2008, p.167). It is also worth noting the association made above (Marilena & Elena-Mihaela 2008, p.167) between the capacity for PS employees to transfer across departments and the loss of tacit knowledge. This could act as a brake on innovation, if the losses are significant enough, but it could also act as a driver of KM initiatives.

It is also significant that knowledge sharing is seen by some writers as important to the improvement of public services but that they also believe knowledge hoarding is more prevalent in government bureaucracies than in the private sector. A study by Burford and Ferguson (2009) suggests that government departments face special problems in their KM endeavours because of the reality of 'constant change' in government and government departments and that knowledge hoarding can be seen as 'almost a survival mechanism' in cases in which groups or sections have reason to think they may be moved to another department, typically after the next election, and seek to become self-sufficient within their silos.

The Australian National Audit Office (ANAO, 2009) sees both commonalities and differences between public and private sector innovation. Examples of commonalities are business process improvements and aspects of information and communication technologies but the ANAO Guide notes that areas of policy innovation, such as national security and pandemic preparedness, are far more important in the public sector than they are in the private (2009, p.3).

Finally, Marilena and Elena-Mihaela also see the ageing workforce, documented in an OECD study, as a significant point of difference between public and private sectors (2008, p.167). They provide no evidence for the distinction but their point about knowledge loss, actual or potential, being a factor in KM initiatives in the PS is repeated elsewhere. McNabb (2007, p.261) sees the waves of retirees over the coming decade and the consequent loss of organizational knowledge as an important driver of PS KM development. This factor is also mentioned in all three case studies in the McNabb collection (Boyle, Maturo & Hoffman, 2007, p.219; Nappi, 2007, pp.239-240; Hammer, 2007, p.251). Bontis (2007, p.155) sees anticipated staff turnover as a result of retirements as one of the main factors prompting government review of KM infrastructure, while McAdam and Reid (2000, pp.319-320) suggest that the staff retirement issue, when combined with budget cutbacks, means that PS agencies are required to do more with less, which in turn acts as a KM driver.

Management approaches to KM in the PS

Swan's study of managing knowledge for innovation suggests that, while practice-based perspectives have become a popular approach in social and organizational theory, they have received very little attention in the KM literature (2007, p.158). She provides three lenses through which to analyze a specific cross-institutional project conducted by the East General Hospital in the UK: the first, production perspectives, characterized, for instance, as 'first generation KM', with a focus on 'codification' strategies (2007, p.152); second, process perspectives or 'second-generation KM', with a focus on developing the conditions required for organizational 'knowing' (2007, p.155); and, third, practice perspectives, which, in her view, draw attention to the 'materiality' of social activity (thus technological artifacts are an essential part of practice), the extent to which context is created within fields of practice and, finally, the investment in practice.

Swan (2007, p.164) notes that the KM literature up to that time had tended to move from one 'generalized set of prescriptions', such as first-generation KM, to another, 'with relatively little attention to how these different approaches interact, complement and possibly contradict one another.' Swan's

analysis suggests that the gap, noted earlier (Burford et al. 2011), between high level strategy formulation and intention and the self-shaping, evolving and negotiable nature of practice may be reflected in evolving and divergent generations of KM thinking.

Such references to a focus on practice appear distinctly atypical, however, based on the literature search conducted for this study. There are many more instances of the 'first-generation', top-down approach to KM and high level direction of knowledge work than there are of an evolving, negotiated, practice-led approach. A relatively recent book, specifically on PS KM (Griffiths, 2009), for instance, promotes the 'traditional' top-down KM strategic approach, with an account of organizations identifying their key aims (and thus what they need to know), followed by knowledge and information audits, which establish, amongst other things, what organizations know and where the gaps in knowledge and information lie. A short chapter called 'Marketing KM in the organisation' (2009, pp.55-59) suggests that senior management needs to *sell* its KM idea to employees, as distinct from fostering an organizational environment that facilitates the changing knowledge endeavours of the organization concerned, encourages individual knowing and spontaneity and feeds employee contributions into the organization's strategic thinking.

An earlier book (McNabb, 2007), also on PS KM, takes a similar approach, noting (2007, p.52) the many information and communication technology failures documented elsewhere but adding, 'Better integration and planning ... is bringing order to the disorders'. McNabb appears to be suggesting that the problem is poor planning and that the answer is simply to have better and/or more planning, not to query the whole strategic approach and the associated top-down approach to KM systems and technologies acquisition. On the finding by Butler et al. (2004) that the failure rate for private sector KM system programs was over 80%, McNabb comments, 'Most likely [sic], a key reason for these high failure rates was the lack of commitment by senior-level management to stay the course' (2007, p.53).

The top-down, strategic KM approach encapsulated in these works is the dominant one in some of the case studies gathered for this review. Chua & Goh (2008), for instance, presents a study of a KM initiative at Emmanuel Medical Centre, an Asian healthcare organization, in which the initiative came from senior management, which recognized 'the importance of KM on its organisational practices' (2008, p.338). The authors frame the discussion in terms of the well-documented KM problem of retaining organizational knowledge and not the broader issues of leveraging knowledge and innovation. The project, which revolved around the introduction of technologies such as an intranet and an

electronic discussion board, had three subordinate goals: reduction of training gaps, reduction of duplication and encouragement of 'cross-departmental communities of practice' (2008, p.339).

Judged by the measures put in place, such as percentage of staff log-ins and the number of discussion threads created after the pilot phase, the project was deemed a failure (2008, p.339). The authors' discussion of failure factors is framed by four sets of factors: technology, culture, content and project management related. These include an IT competency gap amongst some staff, the 'knowledge-is-power' attitude amongst some staff (notably doctors), the lack of motivation to access the new resources amongst some staff (especially nurses), the effect of the social stigmatization of mistakes and the lack of a roll-out strategy (2008, pp.340-345).

In other words, much of the discussion is framed in terms of poor project management, including, critically, the lack of user needs analysis and user consultation, despite the fact, as the authors put it, the project 'outwardly' demonstrated 'several features of a well-planned project' (2008, p.342). Their analysis seems untouched by practice-based theory and is couched in terms of the errors that can be made in a top-down initiative of this nature. There is this isolated comment:

alignment at the strategic level was, however, found to be necessary but insufficient for success. Taking a step further, KM projects ought to be integrated with everyday operations so that KM activities become embedded seamlessly into work processes rather than add-on chores (2008, p.344).

The separation between planning and activity noted by Burford et al. (2011) is clear, with strategic intentions having to be aligned retrospectively with practice.

A study by Fry and Griswold (2003) of an attempt to apply Learning Organization (LO) principles to the Office of Information Resources in South Carolina – an endeavour that produced mixed results – presents another example of the gap between strategic planning and action. Fry and Griswold do recognize the need to '*translate* the general idea of the learning organization into something more *concrete* and more *relevant* to the *experience* of the members of the organization' (2003, pp.318; italics added) in their account of the use of discussion groups as one of the implementation strategies. The notion of 'translating' imported ideas into something the practitioners understand is a sound one in itself; however, this is a linear, one-way process, as distinct from the dialectical approach for which this current paper argues.

In one of three case studies included in the McNabb collection (2007), Maureen Hammer's account of KM at the Virginia Department of Transportation is an informative narrative about the development of PS KM, starting with the formation of a KM Division in 2003. The case for KM is founded largely in workforce reduction in the mid-1990s, which led to 'knowledge loss' and subsequent attempts to prevent a recurrence, with staff retirements looming (Hammer, 2007, p.240). An attempt in 2004 to create an online community by forming online discussion lists, however, parallels the problems reported elsewhere, with Hammer reporting zero staff use. Willingness to admit the failure, however, helped to build future trust, she suggests, and there were lessons learned, including the idea that communities of practice should be developed to suit staff (2007, p.243). This ignores Sylvia Gherardi's essential point (2006, p.108), however, that 'a community does not exist before the practice that brings it into being as a community of practice'.

A 'case study' of PS procurement (Hazlett, McAdam & Beggs, 2008) states that within the PS, KM can be limited in its application, even where it is openly endorsed by senior management. The suggestion is that these limitations 'can result from poor communication of the strategic intent of knowledge transfer within the organization' (2008, p.58), rather than with the strategic intent. The paper's methodology and conclusions refer to the need to engage with practice/activity but, as in the general KM literature, there is a clear gap between planning and activity.

First-generation KM is also reflected in periodic references in the literature to 'best practice' as a knowledge-sharing strategy. As with frameworks and standards, best practice is associated with a management approach that privileges planning and the notion that high-level management can direct knowledge practice. It is demonstrated in Britain by the English Beacon Council scheme, which was an attempt by central government to reward those local authorities deemed to have demonstrated exemplary levels of innovation and service delivery (Rashman & Hartley, 2002; Rashman & Radnor, 2005), and in the US, by programs such as the Innovation in American Government Awards program (Eggers & Singh, 2009, p.60). Rashman and Radnor (2005) report the English Scheme had mixed results, with some local authorities failing to transfer 'best practice' to their own operations, but gloss over the 'failure' of some local authorities to benefit from the Scheme, suggesting a 'holistic' approach to overcoming the 'tension' noted in the modernization agenda.

The problem may be more fundamental, however, and turn on the whole notion of trying to extract 'best practice' from one context and embed it in another. Rashman and his colleagues acknowledge the need to take into account the fact that the complexity and individuality of local authorities is a challenge

to the design of this form of 'knowledge transfer'. In a later paper, Rashman, Withers and Hartley (2009, p.476) refer to an earlier case of inter-organizational knowledge transfer, one taken from the British health sector (Newell et al., 2003), and suggest that it is difficult to transfer knowledge in such cases because, as they put it, 'the local processes of knowledge generation were integral to changing practice'. Drawing on a body of literature that emphasizes socially constructed and context-specific nature of knowledge and learning, they state (2009, p.477) that, because 'knowledge is developed through interaction and within practice' it follows that 'any attempts to move it from the context of this interaction will be problematic'.

Similarly a systematic literature review by Rashman, Withers and Hartley (2009) suggests that there are problems in trying to apply lessons learned from the private sector to the PS, as some writers in the PS field have tried to do, including those responsible for 'foundational works'. They argue for 'conceptualizations that clearly define the specific organizational context of learning and knowledge and the extent to which generalizations can be made from one organizational context to another' (2009, pp.472); an approach that is consistent with the approach argued in this paper. The point is well made later in the same paper, when Rashman, Withers and Hartley state that their review 'questions the extent to which generalizations about organizational learning and knowledge can be "de-embedded" from private sector organizations and applied to public organizations' (2009, p.479). Knowledge according to this view is not an 'end product' that can be extracted from one context and applied to another. Rather, new knowledge and understanding need to be developed if they are to be applied successfully (Rashman, Withers & Hartley, 2008, p.48).

Moreover, the literature that draws on the private sector, Rashman, Withers and Hartley suggest (2008, p.99), underplays aspects of organizational knowledge and learning that are of greater significance to the public sector, such as the role of power and politics. They argue for 'robust theory that takes into account the complex nature of public service organizations' institutional, governance, structural and public value context'.

Finally, the literature search uncovered an isolated challenge to managerialism, written from the perspective of organizational learning. Vince (2000, p.41) puts the case for moving from public management to, what he calls, 'management in public', which means that managers use authority to 'create and contain processes' with a view to involving as many staff as possible 'in witnessing and/or participating in how decisions are made'. He contrasts this approach with the development of mission statements and core values, which suggests the tailoring of behavior to 'a set of common aspirations or

control mechanisms'. According to Vince's management model, organizational missions and values will emerge as part of a continuous 'process of becoming' and 'will no longer fulfil the requirements of setting the boundaries of compliance' (2000, p.41). Vince's paper states that by 2010, public organizations could have developed this radical approach to organizational learning. There is no evidence, however, that such an approach has become significant in PS KM in the eleven years since Vince's suggestion.

CASE STUDIES

The literature search for this review included searches for relevant case studies, several of which have already been mentioned and found to be of little value in terms of exploring the emergence of knowing and innovation in an organizational context. Indeed, these examples suggest that the gap present in the general KM literature between strategic planning and knowledge practice is also clearly evident in the PS KM literature.

The search results included an Australian Government website with four case studies, none of which is discussed in any detail here. They are described as 'Australian Public Service Knowledge Management Case Studies' (AGIMO, 2004), but, with the exception of one study, focus on examples of what Tom Wilson (2002; 2005) would have dismissed as the retagging of information management tools: for instance, a thesaurus or performance management system (Centrelink Datashop) or on a top-down approach to strategic KM (Insolvency and Trustee Service Australia). The one exception is the relatively brief Australian Bureau of Statistics (ABS) case study, which is suggestive of the dialectical approach supported in this paper, with its argument for strong leadership and governance, on the one hand, but, on the other, a recognition that management can influence the way in which people work and therefore think about work, '*letting* them contribute and add value in a supporting environment characterized by trust and openness' (AGIMO 2004; italics added). Whether their contribution extends to strategy formation is not stated.

Out of the fourteen case studies identified in the literature search, three are considered to include sufficient reference to organizational practice to merit discussion here.

Case Study 1: The European Commission and 'Mundane KM' (Davenport, 2002)

Davenport (2002) reports a KM project to promote the formation and persistence of the routine interactions of knowledge work in virtual groupings of small to medium enterprises (SMEs) in the

tourism sector. The project focused on 'mundane knowledge management' or local practice. For Davenport (2002, p. 1039) mundane knowledge work 'is not the management of a resource' but is manifest in the local and orderly interaction of individuals and their work environment. Her attention is on 'the issues of the maintenance work that sustains communities: the identification and negotiation of aims, tasks, resource allocations, alignments, alliances, and the nature of apprenticeship' (p. 1038).

Mindful of the fragility of SMEs in comparison to large enterprises and the volatility of the tourism industry at large, the European Commission funded a consortium to develop KM packages that would foster the establishment and success of cooperative networks of SMEs. The online environment played a key role in the establishment of this flexible collaboration of tourism SMEs. The project was intent on establishing the everyday practices that would allow knowledge work to flourish. The insight gained in this KM initiative confirmed that knowledge does not sit alongside practice as a resource and that knowledge and practice are tightly coupled (Davenport 2002). It revealed a need for a 'manager' to emerge in times of significant breakdown in the flexible interactions of practice and that the physical environment – in this case information technology - cannot be kept isolated from knowledge workers and presented to them as 'black box'. This attention to KM as mundane local practice pays attention to the social processes and interactivity between groups of workers and between those groups and their physical surrounds.

Case Study 2: East General Hospital, UK National Health Service, and a Practice Perspective (Swan, 2007)

As noted above, Swan (2007) brings production, process and practice perspectives to bear on a case study from the UK's National Health Service, that of a cataracts project, aimed at cutting the number of patient visits, waiting times and medical and other practitioners involved in a routine, outpatient, surgical procedure. The whole process was simplified, to the benefits of patients, but, as Swan notes, there was resistance to the new system from specific practitioners involved and, second, disseminating the new process to other hospitals proved problematic.

From the practice perspective, this case shows innovation cutting across different established practices and the need, as Swan puts it, for invested practices to be divested, demonstrating a lack of connection between knowledge and innovation. The case also demonstrates how objects, such as the forms developed by the project team, can transform practice: for instance, by encouraging 'perspective taking' across specialist groups and engaging different groups in the process, thus encouraging commitment. It

also supports the view that objects, in the form of standardized forms and templates, play a key role in establishing and reconciling differences in meaning and in translating knowledge across specialist groups. It is worth noting Swan's further point, however, that those involved in KM need to be conscious of the potential for objects, even KM systems, to be sites for significant conflict (2007, pp.161-164).

The key point is Swan's suggestion that specialization can create barriers to those innovation processes that cross boundaries and that investment in practice means that practitioners will attempt to maintain control over their own knowledge domains and work practices, which also acts against innovation (2007, pp.159-161).

Case Study 3: Innovation in a PS Elderly Care Organization (Fuglsang and Sørensen, 2010)

Fuglsang and Sørensen (2010) analyze innovation in a PS organization providing elderly care. Although they make only passing reference to knowledge and none to KM, their paper is relevant to this study because of its application of practice theory to innovation in a PS organization. Indeed, it describes one form of innovation, 'bricolage' – described as 'a "do-it-yourself" problem solving activity taking place in daily work situations' (2010, p.581) – as an aspect of practice that is arguably of growing importance in the PS (2010, p.583). Part of the case study consisted of semi-structured interviews, designed to establish how development and innovation took place in elderly care.

Three forms of innovation were reported: bricolage, in the form of the many small practical ideas implemented by employees in their encounters with clients; management-initiated innovation, which begins as relatively abstract ideas, driven by management in response to external expectations and demands, and an approach that comes close to the 'standard definition' on innovation; and, finally, management-mediated innovation, which is problem driven and involves problem definition and solution through collective meetings and project groups (2010, pp.585-587). The three processes of innovation are only weakly connected in this case, according to Fuglsang and Sørensen (2010, p.593), with bricolage largely hidden in daily activities, despite being recognized as a critical aspect of work, and much innovation happening without the knowledge of managers.

A follow-up experiment, which involved the collection and assessment of ideas from employees, suggested that using a basic mechanism of this kind could integrate bricolage with the more formal processes of innovation in the case, with some types of bricolage being integrated directly into work routines and others providing input to further problem solving in the management-mediated processes (2010, p.593). The case also suggests, however, that too much management control over bricolage

would be undesirable, with work becoming less flexible and home carers 'less resilient in their work'. Bricolage and innovation (understood in its 'conventional' sense), Fuglsang and Sørensen conclude (2010, p.594), are not 'simply dichotomous' but should be considered 'a continuum of more or less formalised innovation processes that require different degrees of management intervention and mediation'.

DISCUSSION AND CONCLUSIONS

The literature review reveals a clear gap between PS literature and practice and contemporary perspectives of KM, as represented in the mainstream literature. The PS KM literature is strongly informed by strategic approaches, as represented in early iterations of KM, with little reference to practice-based theory. Even some relatively recent papers appear untouched by notions of KM evident in mainstream literature for decades.

Davenport's *Mundane KM* (2002) proves an exception to the trend in PS literature in its focus on social processes and interactivity and on the everyday practices that foster knowledge work. Citation analysis of her work, however, suggests that it has had little impact on the literature or practice within the sector. Swan's case study (2007) brings a rare practice perspective to bear on innovation in a PS organization. The paper is not about the emergence of innovation; rather it is about barriers to innovation in the form of contestation across different work practices, but such inter-practice dynamics need to be factored into our theories, as Rashman, Withers and Hartley's review (2008) suggests. Fuglsang and Sørensen's work (2010), in its investigation of innovation in a PS organization, presents notions that align with contemporary KM perspectives although these are not identified by the authors as relevant to knowledge activities and management. The exercises that underpin the research made visible the practices that contribute to innovation. The study's findings have important implications for how emergent knowledge might be exposed and validated within PS organizations.

The decade long gap between Davenport's work and the novel work of Fuglsang and Sørensen, which reveals understandings about how innovation emerges through practice, could be a costly one for PS effectiveness. The case studies reviewed here illustrate how management approaches to knowledge and innovation in the PS are reflected in the literature and, on the whole, confirm the concern (Burford et al. 2011) that contemporary theories of knowledge and its creation, development and institutionalisation in PS organizations are underdeveloped both in literature and in practice. The case studies identify a gap between traditional approaches to KM and practice-based theories of self-organization in the public

sector and suggest sectoral and organizational structures and processes that conspire to limit innovation within the sector.

Perhaps the strongest indication of the limited development of thinking, in the PS review of KM representation in theory and practice, is the way in which KM failure is reported and theorized. KM failures are invariably framed as failures in the management of knowledge where knowledge is defined as manageable. The persistent representation of KM failure as failure of managerial process – rather than any indication that failure may be linked with the ways in which knowledge is framed by the KM intervention or exists in practice – invites criticism of the sector's ability to accommodate evolving views of KM and its developing sophistication. No opportunity exists for useful critique when failure is reported within the same framework that may actually be responsible for the failure.. At the very least, alternative conceptions of what knowledge is and does in organizations is neglected because of the hegemony of the managerialist view. Managers are unable to see the sources of failure that may relate to the ways in which knowledge itself exists.

Cited contextual issues in the PS (for example, lack of autonomy, PS accountability, the diffuse and contradictory nature of public policies) encourage conservatism and this conservatism is shown to be associated with reluctance within the PS to develop and act on alternative approaches to how knowledge can be perceived and acknowledged within organizations. In these constrained environments knowledge that is developed outside of bureaucratic control can be construed as deviant (Kennedy & Corliss, 2009). The risk associated with practice-based knowledge cannot be tolerated in environments of high regulation where risk is avoided (for political reasons and because of fear of public scrutiny). In these environments, where knowledge is produced and validated at senior levels within the hierarchy by those responsible for political and policy outcomes, the notion that knowledge which emerges through work may have an impact on organizational activities, processes and outcomes is problematic. In this paper, it is suggested that this goes some way to explaining the gap between PS and mainstream theorising and practice.

This review of the literature establishes that a gap does indeed exist between mainstream and PS literature and practice. This gap is demonstrated in the representation of managerialist perspectives on knowledge in organizations and the separation of knowledge and activity. The presented cases test the perceived gap in the theoretical perspectives presented in PS literature and illustrate a clear gap between contemporary perspectives on knowledge in organizations (including practice-based perspectives) and PS KM approaches. Concepts that are being developed into coherent theory and

advancing practice in the private sector appear to resist transfer into the public domain and the resulting gap has implications for PS innovation and effectiveness.

The review underlines the need to develop better case studies of knowledge and innovation in the PS; studies that highlight organizational practices, as distinct from seeing practice as something that needs to be adapted to managerial plans or seeing a knowledge intervention as something that simply needs to be 'translated' into practice. The Fuglsang and Sørensen case study (2010) offers some idea of how one might chart the level of interplay between managerial interventions and practice-driven changes and establish how the latter might be leveraged better. The task would be to find PS organizations that appear to be doing something innovative, either in terms of outcomes or of practices, and conduct a study that charts elements such as different practices, the emergence of innovation and innovative practices, knowledge sharing (or barriers to it) within and across communities of practice, boundary spanners and the degree of alignment between strategic intent and practice, including the extent – if any – to which emergent knowledge and innovation feeds into corporate knowledge and strategies. This is quite distinct from the search for 'best practice' that characterizes much of the managerialist literature; rather, the approach is that of the town planner who observes paths worn in the grass – 'desire lines' – and paves the pathways that the stakeholders are clearly using.

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