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A paradigmatic and methodological examination of knowledge management research: 2000 to 2004

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Abstract

Knowledge management (KM) research has been evolving for more than a decade, yet little is known about KM theoretical perspectives, research paradigms, and research methods. This paper explores KM research in influential journals for the period 2000–2004. A total of 160 KM articles in ten top-tier information systems and management journals are analyzed. Articles that may serve as useful exemplars of KM research from positivist, interpretivist, and critical pluralist paradigms are selected. We find that KM research in information systems journals differs from that in management journals, but neither makes a balanced use of positivist and non-positivist research approaches.
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1. Introduction

The knowledge management literature is expanding rapidly. Database searches suggests that the first reference to "knowledge management" is in 1987, and that the total of scholarly papers published since 1995 is more than 2500 [27]. Yet very few of these papers reflect on what is known about the KM discipline as a whole. It is therefore not surprising that at present there is minimal consensus on what constitutes the centre of the discipline, or the paradigms and methodologies that unite members of KM communities. We briefly review two aspects of KM research — theoretical perspectives, and critical reviews of the KM literature — before identifying our research objectives.

1.1. Theoretical perspectives

A new discipline requires definitional papers that focus on basic theory by defining terms and establishing relationships between concepts [7]. The KM literature already contains a rich variety of conceptual papers that build theoretical foundations for knowledge management. Conceptual papers have been provided from disciplinary perspectives such as information systems [2,11,13,28,31,32], management (including organizational behaviour) [9,10,22,23], and systems thinking (including critical systems) [17,20,26,29]. The problem is that interconnections that may exist among the theoretical frameworks appear to be largely unexplored. Three perspectives on organizational knowledge are discernable that may support such an exploration. One perspective proposes that organizations have different types of knowledge, and that identifying and examining these will lead to more effective means for generating,

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sharing and managing knowledge in organizations. Orikowski (2002) [25] cites Tsoukas (1996) as characterizing such a perspective as "taxonomic", with researchers developing classifications of knowledge and then using these to examine the various strategies, routines, and techniques through which different types of knowledge are captured, represented, codified, transferred, and exchanged [22,23]. For example, Holsapple and Joshi (2004) adopt a taxonomic perspective in developing a general-purpose KM ontology [16]. The authors provide evidence that the panel of KM researchers and practitioners who collaboratively engineered the ontology judge that it unifies KM concepts, is comprehensive, and has *utility*.

A second perspective on organizational knowledge proposes that knowledge is inseparable from knowing how to get things done in complex organizational work. This perspective proposes that organizations enact a collective capability in organizing. It examines 'practice', i.e., the "situated and ongoing accomplishment that emerges from people's everyday actions" [25, p. 269]. This perspective recognizes the utility of discrete knowledge resources and activities, but also examines the nature of work practices, and *human agency*.

A third perspective on organizational knowledge proposes that knowing how to get things done in organizations cannot be separated from politics, i.e., how power is attached to knowledge and vice versa. Pozzebon and Pinsonneault (2006) describe the conflicting views of clients and consultants in customizing complex software artifacts such as ERP systems. The authors describe the initial organizational configuration of client–consultant relationships, and the way this arrangement evolves through mediation, in terms of *power relations* [28].

An examination of the above KM conceptual papers reveals that these theoretical perspectives illuminate at least some of the differences in disciplinary approaches to KM research. The perspective that prioritizes utility, human agency, and power relations appears to be dominant in the information systems, management, and critical (and critical systems) literatures, respectively. The third perspective is largely ignored in KM research, perhaps because of the practical difficulties in the honest reporting of empirical evidence on power relations [34]. However its influence can be seen in the not insignificant constellation of definitional papers composed of three elements — the fluidity and interconnectedness of knowledge, theories of knowledge (epistemology) that arise through discourses, and a critical (or critical systems) approach to knowledge phenomena sensitive to dissensus, conflict and power [17,20,26,28,31].

1.2. Critical reviews of the KM literature

No critical reviews and few descriptive reviews of the KM literature exist. Croasdell et al. (2003) [7] examines the 76 research papers presented at the Hawaii International Conference on System Sciences (HICSS) for the period 1998–2002. Three findings are as follows. Firstly, conceptual difficulties are limiting the development of a common vocabulary among members of the KM research community — "Unfortunately, it appears that knowledge is often formed from bonds that are hard to understand from the outside looking in and difficult to explain from the inside looking out." Secondly, KM is an interdisciplinary research area in which the references most frequently cited by the (information systems) researchers are from the management rather than information systems literature. Finally, KM is in the early definitional or theory-building stage of being a discipline. KM researchers still have to "build their field anew — first principles, justification of concepts, questions and methods." Interestingly, a review of the research methods indicates that the HICSS community has responded by "a focus on conceptual, case based, and action research" methods. Croasdell et al. (2003), and two other reviews [4,27] provide classifications of KM topics that are not dissimilar to those of some other authors [2,9].

All three reviews of the KM literature suggest that KM research is part of the mainstream of information systems research, and management research in general, and that influential journals across the management spectrum serve as outlets for a significant quantity of KM research. The classifications of KM topics in the reviews *are not* systematically related to any theoretical perspective. None of the three reviews examines first tier journals in which KM research articles *are* typically linked to theoretical perspectives.

1.3. Research objectives

For the purposes of the current research, KM is seen as a discipline that overlaps and extends information systems, and that both are integral aspects of the management literature. Progress in KM will therefore be marked (among other indicators such as the introduction of new journals) by influential papers in established tier-one journals (Fig. 1).

Our objective is to examine the KM theoretical perspectives, research paradigms, and research methods reported in influential journals in order to see what they tell us about KM research as a whole. In particular, we wish to determine if KM research in information systems