

Knowledge Sharing as a KM Strategy: Panacea or Tyranny

Cate Jerram¹
Lesley Treleaven¹
Dubravka Cecez-Kecmanovic²

¹University of Western Sydney
e-mail: c.jerram@uws.edu.au
e-mail: l.treleaven@uws.edu.au

²University of New South Wales
e-mail: dubravka@unsw.edu.au

Abstract

The paper presents findings from an empirical study of a knowledge management initiative (KMI) in the Australian Bureau of Statistics (ABS) aimed at improving collaborative work processes. The key KMI strategy was to enhance knowledge sharing via Lotus Notes and thereby transform collaborative workspaces. While KMI has been highly successful and commonly shared workspaces (databases provided by Lotus Notes) well accepted, the elimination of individual workspaces (Word Processors and other MS office tools from personal computers) created some tensions. These tensions can be usefully examined by employing the sensemaking model of knowledge in organisations which enables distinctions to be drawn between knowledge at the individual, group (collective), organisational structure and cultural levels (including processes within and between levels). Using the sensemaking model the paper interprets the empirical evidence of knowledge sharing and collaboration through workgroup databases and individual experiences, and provides explanation of sources of tension. The findings from the study demonstrate that understanding collaborative work practices and knowledge sharing via Lotus Notes using the theoretical lens of the sensemaking model, enables deeper insights into these tensions and can thus inform changes of KMI strategy over time.

Keywords

Knowledge management initiative, knowledge management strategy; Lotus Notes, workgroup databases; enforced collaboration; collaborative workspaces; sensemaking model of knowledge.

INTRODUCTION

Investigations of knowledge management and the ways Information Technologies (IT) are adopted to support knowledge management processes are gaining increasing interest in Information System (IS) research (eg. Schultze and Leidner, 2002; Earl, 2001; Alavi and Leidner, 2001; Gray, 2000; Boland, 1994). This is motivated by raising awareness that knowledge has become a key organisational resource (Earl, 2001; Grant, 1996; Nonaka, 1994) and that IT are playing an increasingly important role in managing this resource (Schultze and Leidner, 2002). Despite notable difficulties in understanding the nature of knowledge in organisations and what it actually means to 'manage knowledge' – difficulties faced by researchers and practitioners alike – organisations continue to undertake various knowledge management initiatives (KMI), including investments in IT and organisational change processes. Studies of KMI and especially successful KMI examples represent opportunities for learning and increasing understanding of knowledge processes and roles IT play in these processes. This paper presents results of the investigation of one such example – KMI in the Australian Bureau of Statistics (ABS) – which has been widely known as a highly successful and innovative initiative. The paper argues that to understand such KMI, including the adoption of IT and resulting organisational impacts, organisations have to be seen as distributed knowledge systems and KMI as interventions into these knowledge systems. Such a perspective, as the paper demonstrates, allows us to understand the multifaceted nature of KMI and resulting organisational changes, and explain confusing events and contradictory evidence.

The KMI in the ABS relied to a large degree on the adoption of Lotus Notes to assist knowledge workers in knowledge sharing and collaboration. The ABS has made a considerable investment in Lotus Notes, its development and adoption to meet their own organisational needs. The workgroup databases provided a shared space for collaborative development and display of group work, enabling easy access for all members of the organisation to each others' work and, consequently, the organisation's knowledge, output and expertise. To foster the implementation and widespread use of Lotus Notes, the ABS's KMI also involved elimination of MS office from individual workstations. The assumption was that work performed by the ABS's knowledge workers

was collective in nature, and that it therefore required knowledge sharing and collaboration best done via shared electronic workspace. Furthermore, it was believed, individual electronic workspaces were not needed and could potentially be an obstacle for collaboration. As a result knowledge sharing and production were predominantly conducted through shared electronic workspace (Lotus Notes).

It is worth noting that the ABS has a well-established culture of cooperation and collaboration and that the KMI in many ways fitted their culture and successfully supported group interaction and collaboration across organisation. Yet a complaint heard from many of the knowledge workers who fully embraced the KMI and the Lotus Notes platform is “give me back my word processor”. The question is why it was so important for knowledge workers to have word processor (and other MS office tools) on their individual computers when Lotus Notes platform (supposedly) provided all necessary functionality.

The paper examines this question by focusing on knowledge creation and sharing as essentially organisational sensemaking processes within the broad view of organisations as knowledge systems (Grant, 1996; Tsoukas, 1996; Spender, 1996). The objective of this paper is to provide deeper insights into knowledge sharing processes in ABS leading to an explanation of tensions between the organisational purposes and goals, and the needs and preferences of the individuals who work within the organisation. The paper therefore has some important implications for practice and research. The new insights and explanation enable an informed action to remedy the situation and decrease tensions. Furthermore, the experience gained from the use of the sensemaking model of knowledge to interpret knowledge sharing and the application of IT in ABS will add to the body knowledge of the sensemaking theory of knowledge in organisations.

Knowledge-based approaches to organisations. seek, on one hand, to classify the different types of organisational knowledge and, on the other, to explain the nature of knowledge in organisations. Several taxonomies of knowledge have been proposed with Spender’s (1996), and Nonaka’s (1994) and Nonaka and Takeuchi’s (1995) being the most influential. These taxonomies are based on a distinction between explicit and tacit knowledge, resulting from a particular interpretation of Polanyi’s work (1962, 1966). Tsoukas (1996) and Tsoukas and Vladimirou (2001) rightly question such an interpretation and demonstrate that it is neither correct nor useful. Tacit and explicit are not two separate types of knowledge, but are mutually constituted. Explicit knowledge is always grounded in a tacit dimension (Polanyi, 1966).

Another stream of research is seeking an explanation of the nature of knowledge in firms. A good example of such a stream is one by Tsoukas (1996). He extends the view of organisations as knowledge systems (Grant, 1996) and examines a concept of a firm as *a distributed knowledge system*. Tsoukas argues that firms are inherently decentered systems and that the knowledge they need to draw upon is indeterminate and emerging, and cannot be known by a single mind.

The theoretical approach adopted in this paper draws from both streams of research but is different from each. It originates from the sensemaking perspective of organisations (Weick, 1995) and the view of knowledge as both an input to and a product of sensemaking processes at different levels (Cecez-Kecmanovic, 2000, 2003). Such sensemaking approach distinguishes knowledge types according to specific sensemaking levels: individual, collective (intersubjective), organisational and cultural. What is the nature of each knowledge type, how one (eg. individual knowledge) is influenced by all other types, and how one tend to dominate over the others, are questions addressed by the sensemaking theory of knowledge (Cecez-Kecmanovic, 2001, 2002).

The paper is organised in five parts that follow this introduction. First, sensemaking theory as it is employed in the study here is briefly presented. Second, the empirical field study and methodology is discussed. Third, the story of how one aspect of the KMI initiative, the disappearing word processor, has created tensions between the organisation’s KM strategy and its individual knowledge workers is outlined. Fourth, an analysis of the different perspectives and the tensions between them, is then discussed. Conflicts between the organisational structure level and individuals, particularly on the design and structure of the workplace for social interaction, are identified and discussed. The conclusion considers the possibility of training to relieve some of these apparently contradictory perspectives whilst pointing to the need for further empirical research into the tensions between different levels of sensemaking and its impact on work practices.

SENSEMAKING THEORY

Sensemaking theory is based on our inherent human need to make sense of the world around us and the events that take place in our lives. It develops from an understanding that humans are social creatures who create and negotiate meaning in socially-mediated ways. We think, behave and respond differently in varying situations, as we – and those around us – engage to make sense of different situations. As individuals participate in different social environments, the more they respond and behave in a wider range of ways (Wiley, 1994). Weick (1995) has developed a useful typology that distinguishes between different levels of socially-mediate sensemaking. There are four levels in his typology starting with the first level of *intra-subjective* – the individual level, in

which the individual makes sense of the world and of events from his or her own understanding. The second level is *inter-subjective*, where individuals in social interaction shape their understandings of the world as they make sense of it together, intersubjectively. The third level is *generic subjective*, where organisational structure with its policies, rules and norms provides generic meanings, understood by those who did not participate in their creation. At this level sensemaking is normative, conditioned and constrained by structures. It is understood by but is not the same as individual. The fourth level is *extra-subjective* or culture, in which people in an organisation are immersed, and comprises a set of unexamined assumptions that influence how and why the individual and the organisation make sense of things and correspondingly act (Weick, 1995; Cecez-Kecmanovic, 2000; Cecez-Kecmanovic & Jerram, 2001, 2002). The four levels co-exist simultaneously whilst affecting and mediating each other, as Figure 1 below illustrates.

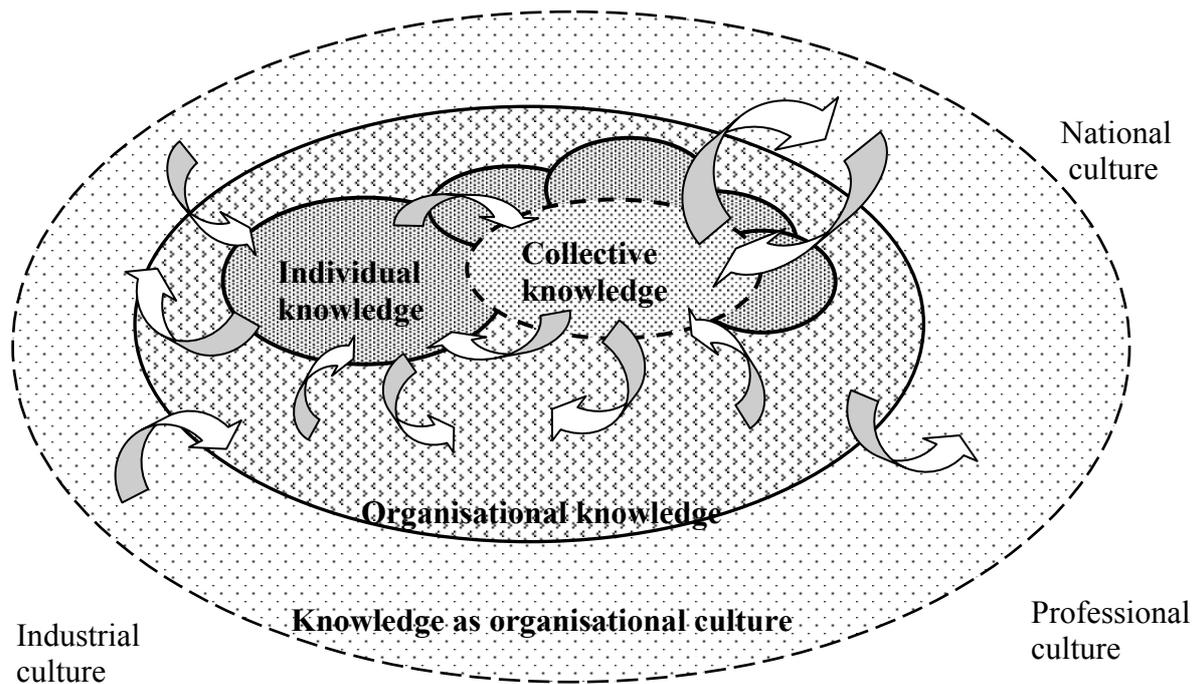


Figure 1: Graphical depiction of sensemaking levels (adopted from Cecez-Kecmanovic, 2003)

There are greater tensions between some levels. For instance, the organisational structure level with its normative purpose and hence need for formalisation of organisational knowledge, militates against the freedom, spontaneity and sometimes innovative quality of social interaction and collaborative knowledge creation. To a degree, the very intent and purpose of organisational structure is to subsume individuality to enable corporate identity, consistency and regulation. Necessarily, then, there will be tensions between the organisational structure level and the social interaction and individual levels. Because culture tends to be taken-for-granted and generally unexamined, the influence of this level can accommodate or inhibit initiatives from an organisational or an individual level.

In this paper, sensemaking levels are used to investigate the tensions in the ABS that centre around the organisational prescription of shared electronic workspaces and elimination of, and the individual and social expressed need for, the return of word processing and office suite capacity for the workers of the organisation. Previous research using sensemaking theory to investigate tensions between different sensemaking levels within organisations has focused on the tensions inherent between the organisational structure level and social interaction level (Cecez-Kecmanovic, 2000; Cecez-Kecmanovic & Jerram, 2001, 2002; Jerram, Cecez-Kecmanovic, Treleaven, & Sykes, 2002; Cecez-Kecmanovic, Jerram, Treleaven & Sykes, 2003). This paper focuses more attention on the tensions arising between the organisational structure level and the individual. The following section briefly outlines the field study. The methodological approach to this study is then outlined, followed by a description of the organisation and the case.

THE CASE STUDY AND METHODOLOGY

The ABS is a well-known public sector organisation that is responsible for the ongoing collection and production of statistical information on all sectors of Australian life. The ABS has offices in each capital city but has a nationally-oriented work focus. The organisational culture disregards state boundaries, and staff express a strong sense of organisational identity with pride in the quality and reputation of their work. Information is the core business product of the ABS, and personnel in each of the offices collect raw data from all over Australia, and process it into information that is widely used by government, business and social institutions. The ABS has become well known in knowledge management circles for the effectiveness of its knowledge management initiative (KMI). The KMI team attribute much of this success to the fortuitous strategic choice of a Lotus Notes platform and careful development of that platform as a KM tool for creating a KM environment. The principal tool on the platform is a range of workgroup databases.

The teams that plan, collect and process data, are variously co-located or geographically distributed across Australia. Any one staff may be a member of a number of different teams, working on a range of projects. For some workgroups, communication is face-to-face. For other workgroups, communication requires flying to different locations, videoconferencing, teleconferencing, or email. Irrespective of location, team members are expected to produce their work collaboratively, and to do so in the workgroup databases that are provided on a Lotus Notes platform.

This study of the ABS is part of a larger research program using case studies to focus on knowledge management and methodology. Twenty-four members of the ABS, from three different State offices and the Central Headquarters took part in semi-structured, in-depth interviews, most lasting 2 hours. Interviewees from junior to senior executives spanned the range of functions including reception, data entry, data collection, methodology, analysis, library, technical services.

All interviews were transcribed, coded using NVIVO and subjected to first order then second order analysis. First order analysis was conducted to identify the way in which the KMI was taken up across the ABS as expressed by the different actors. First order analysis, briefly presented in the following section, gives voice to all concerned and aims at presenting situations from the different participants' point of view. This first order analysis showed that, almost without exception, staff whose work is dependent upon the workgroup databases appreciated the capability of Lotus Notes to provide any information from anywhere in the organisation. It was commonly understood that this readily accessible information facilitates work and simplifies many organisational processes from core business production through to applying for sick leave. The freedom of this access was highly valued as was the trust involved. Nevertheless, the majority of people interviewed also expressed frustration at the lack of a word processor or 'regular office suite', and their desire to have this facility returned to them. Closer attention to part of this KMI story was therefore placed on the impact of the disappearing word processor which is the focus of this paper and presented in the next section.

A second order analysis (presented after the next session) was conducted using sensemaking theory, on all references to this issue of the shared workspaces, individual workplaces and word processor. What happened and what was said was analysed through the lenses of cultural, organisational, social interaction, and individual perspectives. The purpose of undertaking such an approach is to develop an understanding not only of the different perspectives but also how the *tensions* between them are shaped by their viewpoints from different levels of sensemaking within an organisation. The next section of the paper draws upon the stories of both the executives who made and implemented the strategic decision to remove the word processor, and the stories of the knowledge workers who are impacted by that decision.

THE STORY OF THE DISAPPEARING WORD PROCESSOR

The elimination of desktop word processors in the ABS was a strategic decision taken for organisational purposes to facilitate (and enforce) collaborative work practices of knowledge sharing and capture throughout the organisation.

We removed the distraction of a word processor, where people were more interested in formatting than the information content, in many cases... saying 'no, you author your content into here.' That's sort of the origins. One of the contributions I made was, really working hard at getting a critical mass of useful things in that environment, so that people actually operated there. They now did their work in what we call a KM environment, so it wasn't like they had to go to some special place to create information or knowledge. It was just part and parcel of where they worked (Senior Executive #2).

This decision was taken to facilitate a primary goal in knowledge management: to have a knowledge management environment that is an embedded "part and parcel of where they work", rather than a knowledge management

project 'tacked on' to what people are doing. According to senior staff, it has saved time, money and effort in the elimination of "lone cowboys reinventing the wheel" (Exec #4). In the past, there had been many occurrences of duplicated effort as individuals created an application or conducted work in the privacy of their own pc, that someone – or several someones – had already done elsewhere.

It is indicative of the need many individuals have to personalise programs and workspaces that, even after the elimination of the word processor and the introduction of Lotus Notes and the collaborative work areas, the problems of duplication reoccurred:

They'd say "oh, we can make Notes do this", so a lot of little applications sprang up. At one stage we had at least 9 [one per office] and probably more, room booking systems. All written in Lotus Notes, all written differently, independently, some of them cloned from each other. We had at least 5 cloned versions of our help desk hard tracking system spring up around the organisation. A lot of it is experimentation. And a lot of reinventing wheels... (Senior Executive #2)

In consequence, much of the facility for independent application development or customisation of desktops was removed.

Originally we gave everyone the Notes Developer license and we provide quite a lot of training in how to construct the applications. And more recently - in fact I only became aware a couple of months ago, as to how tight it had become - we only issued licenses to people on request, after they jump through certain hoops (Senior Executive #2).

The ABS management and Knowledge Management Team not only wanted to remove redundancy but also to encourage innovative developments that were otherwise hidden on personal desktops, neither shared nor taken up across the organisation.

There's another organisation that runs the same platforms that we do, but has nowhere near the degree of innovation. Their CEO wants to have a field where there are hundreds of little flowers popping up everywhere and he describes it as 'germinating ideas'. But what happens is that all their ideas – the 'flowers' bloom, and then they wilt and they die. Because there's no ability for the person to get that information – no data capture. (Executive #1)

The necessity for data capture of the innovative ideas and developments, as well as the elimination of duplicated effort, are the principal drivers behind both the elimination of office suites, and particularly word processing capacity, on individual desktops, and the reduction in freedom of personal application building in Lotus Notes. The KMI team identify the collaborative work environment and elimination of private desk space for individual (unshared) innovation and development as an important component of the effectiveness and success of the KMI.

I recoil in horror when someone tells me, 'oh you're the guy who's behind this bloody Notes or something' - and you think, 'God, don't you love it. Let me convince you that you love it'. But they're in a job where they don't have... they don't see a lot of the benefits I see. They don't see a new graduate coming in, and they don't see the eyes light up ... 'gee, I can access all this knowledge that might help contribute to my project or help me in the next job - with some understanding of what this job does.' They don't see that. (Senior Executive #2)

Many of the knowledge workers who use the collaborative spaces (workgroup databases) express appreciation for the enhancement of their collaborative knowledge environment.

We have knowledge databases and people do share information here... So we have what you would call a database, where you could put in a question and someone would answer it – that type of thing. It's very, very handy. (Knowledge Worker #S4)

One knowledge worker who expressed dismay upon her original encounter with the KM environment now considered, "I can't imagine life without it" (Knowledge Worker #S5). A visiting executive on secondment from another agency was impressed with the collaborative empowerment she experienced in the enforced workgroup database environment after only a couple of days, and spoke eagerly taking back learning for implementation in her own organisation.

the way that they share it, the way that they make it accessible, is empowering this agency to do good things. Not an individual to do good things - but an agency to do good things, as a collective. (Visiting Executive #C1)

Nevertheless, a majority of the knowledge workers interviewed expressed ambivalence or antagonism regarding the lack of word processor and office suite. "Too much of KM is tied up with Lotus Notes, which a lot of people, including myself, we're violently hostile towards Lotus Notes" (Knowledge Worker #H1). The complaints were not (always) against using the workgroup databases that were, for the most part, accepted as valuable for others,

if not themselves. The complaints were specifically at the lack of word processing facilities and the difficulties of interfacing with a predominantly Microsoft world outside the Lotus-based ABS.

[I]t is so frustrating trying to draft something without a word processor ... having to use the Internet because Lotus is terrible as a browser. Lotus 123 is terrible with anything to do with Excel... (Knowledge Worker #A7)

Very few personnel have permission to acquire a licence to use either Microsoft Word or Excel for their work without a very strong justification.

Well I use the two things [Notes and Microsoft] for different purposes. If I'm creating a complex document that's going outside the ABS, I don't use Notes, because it would drive me absolutely nuts. And it does drive people nuts who are here and have to do that sort of thing. Creating a report in Notes isn't a great deal of fun. You just don't have the flexibility that you have in a word processor. (Knowledge Worker #A3)

As the fortunate speaker who *does* have Word and PowerPoint for their external work has pointed out, "Lotus word processor power is very basic. There's not much you can do in the way of formatting ... the Web Browser fails all the time. It can't handle Java, and these days, everything uses Java" (Knowledge Worker #A8).

what I don't get is access to a decent tool for the job. Either because it won't work with Notes or it won't be entertained... the results of a Lotus Notes environment, has been to close down all the software and technical options... In an ideal world, we will be able to use other tools, which we can't, because we've got Lotus Notes ... And we're pretty muted about it. You want to hear what other people say about it! (Knowledge Worker #H1)

Sometimes the complaints are not specifically about lack of access to Microsoft products. Sometimes dissatisfaction is directed towards upgrades within Lotus Notes. These have been reported as working against the freedom to tailor the Notes to personal preference, or sometimes, simply a reduction or change in preferred facilities.

We had an actual proper electronic catalogue on our workgroup database that had keywords and categories and locations, and everything in it... Notes 5 upgrade killed it. (Knowledge Worker #H2E)

Despite the antagonism and the yearning for lack of office suites and word processor capability amongst many of the knowledge workers, the implementation of the enforced collaborative environment effectively provides shared workspaces for innovation and knowledge sharing. The challenge is to maintain the shared workspaces and the accomplishments of the KMI, whilst addressing the difficulties with which so many of the knowledge workers struggle since that implementation.

MAKING SENSE OF THE STORY

Reviewing the story from a sensemaking perspective, we see that from a cultural level the ABS has an established culture that relies on trust and fosters knowledge sharing and collaboration. Whilst trust, collaboration and knowledge sharing are frequently organisational goals, these features are well established in the ABS and need only to be maintained. On the organisational structure level, a strategic decision was made to enforce work practices that facilitate knowledge sharing, and document it in an electronically collaborative process that is *transparent* and *capturable*. This serves many organisational purposes. The use of workgroup databases captures the previously undocumented processes of knowledge co-creation and permits rapid and easy information access from creation to production, for the entire organisation. Information management is served as well as knowledge management. At a social interaction level, the workgroup databases for collaborative work is enhanced not only for those geographically-dispersed teams.

On an individual level, however, there are contradictory effects. The individual's ability to collaborate with colleagues is facilitated by the introduction of Lotus Notes whilst there is a widespread perception that their own work is debilitated by the lack of capacity to tailor tools to their personal needs or at least employ 'adequate tools for the job'. The changes brought about Lotus Notes evidently impacted on the dominant way for collective knowledge co-creation and sharing but in excessive manner. Due to elimination of the word processors and an open organisation's policy to discourage individual work on personal computers, the collective knowledge sharing was viewed as taken to the extreme.

The tension that grew between the organisational structure level and the individual level is worthy of close examination using the sensemaking model. At first, the issue could be understood as one of functionality. However, dissatisfaction attributed by individuals to the elimination of the word processor and its functionality may have been conflated with individuals' need for personal control to tailor their immediate work

environments. These are separate issues which need to be distinguished, for each have different implications for organisational action. Using sensemaking enables these distinctions to be usefully drawn.

At the individual level, there are those knowledge workers who claim that they struggle with their lack of “a decent office suite” (Knowledge Worker #H1). Yet several members of the executive expressed their ability to perform all the functions that knowledge workers complained were inaccessible to them on Lotus Notes. How then can sense be made of these conflicting viewpoints? Either the executives fail to understand the work needs of the knowledge workers and therefore are mistaken in assuming that the necessary functions are available to all individuals, or the executives are correct about the functionality of the program, and the individual knowledge workers are unaware of the range of functions available to them. If the functionality which the individuals identify as needed but absent through the loss of an office suite are actually available to them on the Lotus platform, then training that identifies those facilities and empowers the individuals to use them might do much to redress the individuals’ grievances and the organisation’s losses. The ABS has an extensive training program, but as this has not been specifically geared to address this particular issue, this possibility for training to address these tensions has yet to be explored.

Another frustration with limited functionality was illustrated above in relation to the catalogue of keywords and the ‘upgrade’ that changed the desktop interface. Senior Executives considered this was a problem beyond the ABS in the Lotus upgrade. From an organisational structure point of view, complaints about lack of functionality and work effectiveness need to be considered and evaluated. If inadequate tools genuinely hamper workers’ productivity, time and resources are being wasted – both of which the removal of the office suite was meant to address, not cause.

Understanding organisation as a distributed knowledge system suggests that it is not possible to concentrate all meaning making and knowledge creation at one level however useful it might seem. Knowledge is generally perceived as useful and desirable: the more we share knowledge the better. But, excessive reliance on knowledge sharing and inter-subjective sensemaking that diminishes or precludes other sensemaking processes has hidden dangers. Knowledge is distributed due to the nature of organisational work and the nature of social reality. Each individual’s knowledge, experience, expertise, is necessary and needs to be sustained for the collective knowledge creation/sharing or organisational level sensemaking. The richness of knowledge in an organisation and its ability to innovate come from numerous dynamic interplays of individual, collective (intersubjective) and organisational (generic) knowledge. Acquisition and maintenance of individual knowledge is not and cannot be limited to collaborative work and tasks conducted via shared workspaces. Individual sensemaking is important as a process per se and cannot be exhausted by collaboration and knowledge sharing. A conclusion we may draw from such an analysis is that the need for individual workspaces, and processes for personal knowledge creation, is inherent to the nature of organisations as distributed knowledge systems. In other words, such needs are not unusual, are not uncentric, and have to be recognised as an essential component of organisational distributed knowledge systems. Had the insights from the sensemaking theory of knowledge been considered beforehand, the assumptions about individual knowledge worker’s needs would have been different.

Furthermore, the tension between two sensemaking levels, the individual and the organisational structure level, is underscored by elimination of the word processor. The desire for personal control to tailor the immediate desktop work environment continues to be an issue for many at an individual level. Yet this ‘experimentation’ and ‘tweaking’ that may lead to new processes and products are mostly incompatible with the working norms as prescribed by the organisational structure and strategic goals, as they also lead to ‘reinventing the wheel’ by ‘lone cowboys’. The need for creativity and innovation to take place in workgroup databases is an organisational need to capture data, information and knowledge as it is created and stored, and not to allow it to be lost or untapped in personal workspaces, as well as a need to ensure collaborative co-creation of knowledge. The need for personal space to play, experiment and express oneself is a conflicting need on the part of knowledge workers who stated their requirement to build a supportive desktop environment to feel to function creatively and expressively. “I remember our previous version, where you were allowed to change the colours and stuff of Memos and you can't do that any more” (Knowledge Worker #H3). There is inherent conflict here, in that freedom to tailor the immediate environment also means the freedom to create in isolation, potentially impeding knowledge sharing, knowledge co-creation and opportunities for knowledge ‘capture’ – the recognition, codification, storage and distribution of valuable new knowledge. Yet the inability to create a personally intuitive, supportive and workable individual workspace can inhibit the creativity of the knowledge worker who is the source and wellspring of the knowledge creation processes in collaborative spaces. The challenge, then, for knowledge management and KMI strategy is to balance these conflicting needs.

Searching for a new balance can be informed by the sensemaking theory. Sensemaking levels are not only distinct forms of producing and using knowledge, but also levels of social reality (Cecez-Kecmanovic, 2003). They enable analysis of individual and collective identity, individual sense of self and others, personal control

and responsibility vs organisational control and responsibility. By balancing individual and collective knowledge creation processes and electronic workspaces, a knowledge management strategy also influences individual and collective identities, sense of self and feelings of empowerment or disempowerment. Informed by the sensemaking theory of knowledge, the KMI strategy in ABS may be re-examined and potentially changed to decrease the tension and achieve a more productive balance between the individual knowledge creation/maintenance and the collective knowledge co-creation and sharing.

CONCLUSION

The use of sensemaking theory to analyse tensions following a knowledge management initiative helps us distinguish different priorities and analyse conflicting needs at different levels throughout a complex, geographically-distributed organisation. From an organisational structure perspective, organisational goals require shared working spaces that facilitate social interaction and contribute to collaborative co-creation of knowledge, knowledge sharing and competent information management. Individuals and the small groups in which they work and develop their socially-mediated understanding of their work environment need a degree of freedom to build a supportive desktop and immediate environments that nurture their freedom of expression and experimental play directed towards creativity and innovation. Whilst such a provision may contribute to the creativity of individual knowledge workers, KM strategy at the organisational structure level has been of higher priority. Accordingly, collaborative environments that stimulate knowledge sharing and capture innovation as it is created, have led to the adoption of workgroup databases and the elimination of the word processor used by individuals.

Although it is possible that training might resolve some of the tensions created by the conflicting needs of the different levels – an unsubstantiated possibility, as this has not yet been tested – training cannot resolve the inherent tensions between the organisational structure level and the individual level in the achievement of individual goals.

The findings from the study demonstrate that the theoretical lens of the sensemaking model provide deeper insights into the underlying sources of these tensions that can thus inform changes of KMI over time. The paper demonstrates that understanding of organisations as distributed knowledge systems involving a continuous interplay of individual, collective, and organisational sensemaking and knowledge creation and use has some important implications for practice and research. The insights drawn from the sensemaking theory of knowledge can productively inform KMI strategies and their evolution over time. Furthermore, research into knowledge management and KMI informed by the theory can lead to better understanding of knowledge in organisations and what it means to manage it.

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