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CONSIDERING THE RECEIVER IN KNOWLEDGE SHARING:
WHEN THE RECEIVER SEEMS READY THE SHARER APPEARS

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Abstract

The knowledge needs and knowledge-related behaviour of receivers are among the most crucial, yet often-overlooked, aspects of successful knowledge-sharing. This research examines how sharers consider receivers’ knowledge needs and knowledge-related behaviour when choosing whether to share their knowledge and which channels to use for the transmission of that knowledge. A new theory of knowledge sharing - Receiver Theory - is introduced, and a receiver-based model of knowledge sharing is developed from existing literature. Two exploratory case studies are conducted using the model as a guiding framework. A key finding shows that perceived receiver knowledge needs and behaviours are important motivators and inhibitors in sharer choices in intra-organisational knowledge sharing. This finding was suggested for both personalised and codified knowledge sharing strategies. The study suggests that for companies to realise more effective knowledge sharing, they should develop better ways to connect potential sharers with receivers’ real knowledge needs. The study also suggests that sharing on a need-to-know basis impedes change in organisational power structures and prevents the integration of isolated pockets of knowledge that may yield new value.

1. INTRODUCTION

A strategy of internal knowledge sharing can enable an organisation to access and exploit its valuable knowledge assets (Argote 1999). Due to evolving structures such as employee empowerment, globalisation and information communication technologies (ICT), local knowledge has been created and isolated in dispersed parts of organisations (Bresman et al. 1999). For such fragmented knowledge to be fully exploited, it must be disseminated to other parts of the organisation where its value can be increased in terms of improved productivity, innovation and competitiveness (Argote and Ingram 2000; Huysman and de Wit 2002). In spatially and temporally dispersed multinational corporations, systematic knowledge sharing is especially important for supporting the integration of knowledge across subsidiaries (Schultz 2003).

Over recent years, companies have discovered that knowledge sharing is a highly complex process to actualise effectively (Szulanski 2000). The diverse impediments encountered include organisational issues such as inhibiting infrastructure and culture, and ICT concerns in content management, search and navigation (Hendriks 1999; 2004). Ultimately, however, the key role in knowledge sharing success is played by the individuals who are the sources (sharers) and recipients (receivers) of knowledge. It is these people whose beliefs, attitudes, intentions and behaviours most significantly affect the knowledge sharing process, and thus its effectiveness (Andrews and Delahaye 2000; Bircham 2003; Cummings 2003).

Increasingly, experts are calling for a greater examination of the issues shaping sharer beliefs, attitudes, intentions and behaviours in knowledge sharing (e.g. Bircham 2003; Garavelli et al. 2002; Hendriks 1999; 2004; Neve 2003). Indeed, it is the micro-processes, mediated by the individuals who participate in knowledge sharing, that cumulatively define organisational learning and so must be
understood (Andrews and Delahaye 2000). In the field of organisational studies, experts have recognised the role of individual actions and interactions in forming collective capabilities (Felin and Hesterly 2004; Foss 2003; Wright et al. 2001). In knowledge sharing literature, prior studies have identified a range of diverse influences on sharer behaviour, including motivation, organisational structure and concerns with the articulation of sharers’ tacit knowledge (e.g. Andrews and Delahaye 2000; Hall 2001; Van den Hooff and De Leeuw van Weenen 2004). However, theory development in this area is far from complete and further research is needed (Argote and Ingram 2000; Hinds and Pfeffer 2003).

One important issue that has not received the attention it warrants concerns the role of perceived receiver knowledge needs and behaviour in sharer attitudes and behaviour in knowledge sharing. Writing on this subject recently, Hendriks cautions that “knowledge sharing is not seen as pushing packages of existing knowledge back and forth, but as a process that requires not only knowledge of the bringing party but also of the obtaining party” (Hendriks 2004, p. 6).

There is evidence to suggest that sharers take note of perceived receiver knowledge needs and behaviour in their choices. For instance, sharer-receiver relationships may influence sharer behaviour (e.g. Hansen 1999), while the availability of receivers may influence the channels selected by sharers for communication (Straub and Karahanna 1998). The second example highlights the importance of including an understanding of the role of ICTs in any study of receiver influences in sharer choices.

In this paper, we report partial findings from the first stage of a larger socio-technical study of the use of ICTs to support intra-organisational knowledge sharing. Elsewhere, we provide other findings from this initial stage (Hunter 2003; Lichtenstein et al. 2004). The central question addressed by this paper is:

*How and why do perceived receiver knowledge needs and behaviour influence sharer beliefs, attitudes and behaviour in knowledge sharing, in an organisational setting?*

The rest of the paper is structured as follows. First, we develop a theoretical background for the later empirical analysis by reviewing relevant sources in knowledge sharing, focusing on sources that highlight receiver influences. We provide a simplified model of receiver-based knowledge sharing to frame the empirical work. After introducing the research methodology, we present the empirical findings, including a set of issues influencing sharer beliefs and behaviour in knowledge sharing. Finally, the paper is summarised, key implications discussed, and suggestions offered for a way forward.

This study is a pioneering attempt to understand how and why sharers pay heed to perceived receiver knowledge needs and behaviour when making key choices in knowledge sharing. The findings shed new light on ways that intra-organisational knowledge sharing might be constrained or enhanced. The study also introduces a new theoretical approach – *receiver theory* – into research in organisational knowledge management, and demonstrates how this theory can be applied to study knowledge sharing. Finally, this study suggests that perceived receiver knowledge needs and behaviour are important motivators and inhibitors in intra-organisational knowledge sharing, complementing an emerging research stream that explores individual issues in knowledge sharing (e.g. Bircham 2003; Neve 2003).

2. KNOWLEDGE SHARING AND RECEIVER THEORY

In this section, we provide a background for the later empirical findings by reviewing a selection of relevant literature in intra-organisational knowledge sharing, including an analysis of the role of receiver knowledge needs and behaviour in sharer choices.

Our view of knowledge aligns with Barabba and Zaltman’s (1991) transformational perspective – data, information, intelligence and knowledge – beginning with codified observations (a collection of data) that are obtained from a marketplace of data which, when placed in some decision context, are transformed into information. In the analysis of this information, intelligence is created. When high levels of confidence are developed in a body of intelligence, knowledge is created. Moreover, we adopt the epistemological position that knowledge has dual, complementary forms – tacit and explicit.
Following, we introduce the concept of knowledge sharing and review four well-known perspectives, followed by introducing a new, fifth viewpoint – receiver theory.

2.1 Perspectives of knowledge sharing

A basic conceptualisation of knowledge sharing describes it as a complex process involving the contribution of knowledge by the organisation or its people, and the collection, assimilation and application of knowledge by the organisation or its people (Hendriks 2004; Huysman and deWitt 2002). Different epistemological positions on knowledge sharing highlight some of the concerns for companies when deploying a knowledge sharing strategy, as we discuss below.

The codification perspective sees knowledge sharing in terms of tacit knowledge that can be articulated and stored, with the explicit form thus divorced from the tacit form. According to this view, a receiver can internalise codified knowledge by reconstructing valuable tacit knowledge. Knowledge in this paradigm is viewed as something which is static and can be objectified (Hansen et al. 1999). The advantages of this perspective include the organising advantages of electronic media, the ability to reach a wide audience, and longevity. Consistency, standardisation, and the sharing of best practices are enabled. However, there are many detractors of this position, including the philosopher Plato, of whom Quinn wrote in 1998: “Learning from texts is certainly seen by him (Plato) as being inferior to the kind of knowledge that emerges from spoken discourse and is shaped by critical questioning in the exchange of views. Texts only have value … when their meaning can be explicated. They cannot stand alone as self-sufficient learning models. Their ‘parent’ or author must be present to teach their true meaning” (Quinn 1998).

When technology is employed to underpin a codified knowledge strategy, technological issues can arise. In addition to traditional communications channels including face-to-face, telephone and fax, a range of ICTs is available to support knowledge transfer – including intranets, email, and groupware. The objectives of ICTs in supporting knowledge sharing include providing access, enabling the location of knowledge carriers or seekers, and improving business processes (Hendriks 1999). Elsewhere, we report diverse concerns including difficulties with finding information, low quality content, information/knowledge overload, unintegrated knowledge, high costs, and insufficient context (Hunter 2003; Lichtenstein et al. 2004). Scholars note that emerging web-based knowledge sharing technologies such as intranets need to learn from the successes of the internet, with future technologies evolving accordingly (Weiss et al. 2004). Current surveys indicate that email is the ICT of choice for intra-organisational communication, with second preference being an intranet (Edwards and Shaw 2004; Zhou and Fink 2003).

A second perspective of knowledge sharing – personalisation – sees knowledge sharing as communication between people (Hansen et al. 1999). Such knowledge sharing happens quite naturally between employees at work (Efimova 2004), while, importantly, many attempts to force such sharing within an organisation have struggled (Stenmark and Lindgren 2004). According to Hansen and Haas (2001), interactive task assistance is more likely to lead to a higher quality outcome than the use of static codified knowledge, although interactive help may take substantially longer. For example, the transfer of complex and causally ambiguous business processes is better done interactively, as any incongruence only emerges during process use (Kogut and Zander 1992). There are dynamics in the interaction between sharer and receiver, and it is these which enable the negotiation of meaning and the stimulation of higher order knowledge processes of knowledge creation, knowledge integration and learning (Efimova 2004; Koschmann 1999). In this perspective, ICTs are used only to connect people for the purpose of communicating knowledge. The disadvantages of this approach centre on the lack of consistency and standardisation, short knowledge lifespan, and limited audience.

A third perspective – community – proposes that knowledge sharing is a situated social process in which knowledge exists only in terms of the community that produces, shares and applies it (Hansen et al. 1999). In this perspective, knowledge is formative, socially constructed and comprises a shared understanding that can be translated into action and enhanced performance (Boer et al. 2002). This view is also consistent with dialogic collaborative learning theories where shared utterances impact both sharer(s) and receiver(s) (Bakhtin 1986; Koschmann 1999). Wenger et al. (2002) discuss risks in this approach, including information overload, time commitment and domination by individuals.
An infrequently discussed, but important fourth perspective conceives knowledge sharing in terms of the *power* thereby conferred. “Human knowledge and human power meet in one”, quoth Francis Bacon famously (Bacon 1878). Sharing this view, Foucault observed that the claim to truth is an act of power (Foucault 1980). The power influence in organisational knowledge management is slowly but surely commanding research attention (e.g. Lichtenstein 2004; Hall 2004). Plato decreed that power should be shared in such a way as to maintain the most apt leaders, by selectively sharing knowledge according to the prevailing hierarchy (Quinn 1998). A contrasting democratic position was offered by Freire, who advocates non-discriminatory sharing of knowledge in pursuit of social equality (Freire 1985). After having introduced some of the common knowledge sharing viewpoints above, we now turn our attention to the receiver-based perspective of knowledge sharing.

2.2 Introducing the receiver-based perspective of knowledge sharing

Experts are beginning to acknowledge how deeply receiver knowledge needs and behaviours may impact the effectiveness of knowledge sharing (e.g., Dixon 2002; Hendriks 2004; Hinds and Pfeffer 2003; Neve 2003; Te’eni 2001). Certainly, theories of democratic participative development in which the learners (cf. receivers) are the central focus have much in common with modern ideas of employee empowerment and new participative organisational structures (Freire 1985). The Freirian theory of dialogical communication exemplifies this viewpoint (Freire 2000).

According to the theory of dialogical communication, knowledge is the result of individual inquiry, and thus receiver needs and behaviour are the focus of knowledge sharing, rather than sharer needs. The sharer (teacher) must step into the receiver’s (learner) world, transcending the traditional perspective that she knows everything while the receiver knows nothing and that her view must be imposed on the receiver in order for knowledge to be transferred. Cross and colleagues discovered in a study that “people who encourage true learning are those who think along with the seeker and participate in problem solving. Rather than simply loading information onto the seeker, these people first understand the problem as experienced by the seeker and then shape their knowledge to that problem” (Cross et al. 2001). Critical consciousness, dialogue, and ongoing learning interactions are needed for mutual learning (Freire 2000; Szulanski 2000). A key point is that the sharer must focus on what the receiver needs and does, for effective learning to occur. With personalised knowledge sharing, such close attention is clearly possible, however it is much more difficult to attain when ICTs with codified repositories and no interaction are involved. The provision of a feedback loop is clearly needed.

Sharers and receivers, as different people, must introspect and examine their preconceptions and assumptions about one another in order to successfully share knowledge. When sharers and receivers communicate to transfer knowledge, there can be a clash of different perspectives and cognition that reveals the cognitive chasm between them, and can indicate a lack of ‘relative absorptive capacity’ on the part of the receiver (Lane and Lubtkin 1998). This lack of related knowledge can lead a receiver to experience difficulties comprehending and assimilating shared knowledge (Dixon 2002; Gasson 2004). Thus ideally, shared knowledge should be expressed as a good fit with receiver cognitive capacity (Garavelli et al. 2002; Neve 2003). However in the event of a gap, a dialogical process (such as Freire’s dialogical communication theory, described earlier) may be able to negotiate the distance, provided that interaction is possible. As a final argument illustrating the importance of sharers becoming engaged with receiver knowledge needs before and during sharing, receivers tend to seek new knowledge based on the relevance of the knowledge to their needs (Schultz 2003), and thus other knowledge that is shared will be ignored.

We argue that sharers will form beliefs and attitudes about receiver knowledge needs and behaviours, based on their perceptions of these needs and behaviours. They are then likely to act in accord with these attitudes (refer to Theory of Reasoned Action, Fishbein and Ajzen, 1975). As an example, the use of knowledge by receivers has been found to motivate a sharer to share further (Hall 2001). Whether a sharer and receiver have a good relationship and trust one another can also improve sharer motivation (e.g. Hendriks 1999; Smith and McKeen 2002). In several recent studies, the knowledge sharing behaviour of individuals was predicted from their beliefs and attitudes (e.g. Bock and Kim,
In the following analysis of the sub-processes comprising the knowledge sharing process, we focus on how sharer perceptions of receiver knowledge needs and behaviours can shape sharer knowledge-sharing beliefs, attitudes and behaviours. Thus we develop the receiver theory further in order to enlighten theory of the knowledge sharing process, as well as frame the later empirical analysis.

2.3 Knowledge sharing process

Knowledge sharing exhibits a processual dimension (Boer et al. 2002). Several recent theories of knowledge sharing attempt to deconstruct the sub-processes involved in order to better study the micro-influences at play (e.g. Boer et al. 2002; Hendriks 2004; Huysman and deWit 2002). Hendriks offers a useful structured processual model of knowledge sharing that enables us to examine the potential role of a receiver in sharer choices. The model assumes a person in possession of knowledge (sharer), and includes five steps: (1) sharer becomes aware of the value of her knowledge to a potential receiver; (2) sharer brings knowledge to the attention of a potential receiver; (3) knowledge is transferred to a receiver through a channel; (4) receipt and assimilation of knowledge by receiver; and (5) effective application of received knowledge in practice (Hendriks 2004). We extend Hendrik’s model by proposing step (6): feedback from receiver to sharer about knowledge needs and behaviours (including any effective use of the knowledge), thus reflecting the receiver perspective of knowledge sharing. We illustrate the six steps in a simplified conceptual model of receiver-based knowledge sharing that frames the scope of this paper’s empirical investigation (Figure 1).

Figure 1: A simplified receiver-based model of knowledge sharing

2.3.1 Awareness of knowledge (Step 1)

“He who knows and knows not he knows, he is asleep – wake him!” (Burton 1999). There are likely to be people who are unaware that they have any knowledge of value to others. People can be alerted to such tacit unrecognised knowledge by others. For example, the technique of Socratic questioning can help elicit tacit knowledge (Neve 2003). The sharer must become aware of her knowledge before knowledge sharing can even be contemplated, and a receiver may be able to play a role in this - for example, by asking a question (feedback about knowledge needs) (Bircham 2003) or providing knowledge requirements in an official knowledge audit (e.g. White 2003).

2.3.2 Bringing of knowledge to receiver attention (Step 2)

Following awareness, a sharer offers knowledge after making a decision to share it with one or more receivers. Motivation is needed to interest a sharer in sharing. Reward systems and other incentives, as well as co-operative goals and cultural norms, can be helpful in this respect (Hall, 2001; Hinds and Pfeffer 2003; Hendriks 2004; Smith and McKeen, 2002). However, motivation can be reduced by a competitive knowledge hoarding culture or hierarchical organisational structure (Hendriks 1999;
Huysman and deWitt 2002; Husted and Machailova 2002). In the end, knowledge sharing is a time-consuming task, and there are limits to how long anyone can spend in a given workday, sharing knowledge (Poulfelt and Petersen 2002). Receiver knowledge needs and behaviour can affect sharer motivation by interesting the sharer in sharing, or not sharing, certain knowledge. For example, receiver use of shared knowledge can motivate a sharer to share more of that type of knowledge in the same way (Hall 2001). Good relationships with and trust in receivers can also stimulate greater sharing with them (Hendriks 1999; Smith and McKeen 2002).

2.3.3 Transfer of knowledge (Step 3)

Knowledge transfer can be defined as “a communication cognitive-affective process that describes the choice of i) one or more communication strategies, ii) the form of the message and iii) the medium through which it is transmitted” (Te’eni 2001). With respect to the form of the message, Yeung and colleagues (1999) highlighted how a sharer with good teaching skills can structure knowledge as it is shared, much as university lectures are structured, thus enabling structured learning for a receiver.

Many factors enter into a receiver’s choice of medium for obtaining knowledge. While receivers are keen to obtain the right knowledge quickly, over 50% of a recent study’s respondents admitted dissatisfaction with information search ability in their companies (Delphi Group 2004). It is well known that search, navigation and information architecture concerns can seriously impact receiver usage of codified knowledge repositories (Hansen 1999; Hunter 2003; Lichtenstein et al. 2004). Thus, sharers may be mindful of sharing through these venues. Sharers will likely wish to know which media are used by receivers. Affecting this choice are emerging organisational environments of information overload, shrinking receiver attention, and new corporate strategies such as employee empowerment, where employee commitments are negotiated rather than directed (Church and Burke 1993; Davenport and Beck 2001). We argue that such changes influence the channels chosen by receivers – and sharers – for work tasks involving knowledge sharing. For example, email attracts employee attention (Lichtenstein and Swatman 2003) and further, has been found to be the most popular organisational communication tool (Edwards and Shaw 2004). Clearly, sharers may recognise that they can reach their target receiver(s) by email, and so choose that medium.

2.3.4 Receiver acquires knowledge (Step 4)

A receiver internalises shared knowledge by understanding, adapting, and re-creating knowledge for use in new local contexts. The process becomes particularly difficult when there is a cognitive gap between receiver and sharer, as discussed earlier. It helps if the sharer is aware of the difficulties in internalisation and catalyses the learning experience appropriately for the receiver (Cummings 2003). However, this requires sharer knowledge of receiver difficulties, which could even be sufficiently severe as to derail efforts to share knowledge.

2.3.5 Receiver applies knowledge (Step 5)

Internalised knowledge increases in value when applied usefully in a work context, thus fulfilling a simple but important objective of knowledge sharing. Knowing that the knowledge has been usefully applied (or believing that it has) has been found to motivate sharers to share further (Hall 2001).

2.3.6 Feedback of receiver knowledge needs and behaviour (Step 6)

According to receiver theory, sharer actions are linked to perceived receiver knowledge needs and behaviour, typically obtained via feedback. White (2003) suggested recently that knowledge needs for a planned intranet should be obtained through an initial knowledge audit. The developed intranet structure then guides sharers with respect to receiver knowledge needs. Bircham (2003) demonstrates how an individual’s questions can be structured to elicit knowledge, while Plato touted the benefits of Socratic questioning (Quinn 1998). In practice, however, there is likely to be a range of ways that sharers form beliefs and attitudes about receiver knowledge needs and behaviours. We explore these ways empirically, however first we introduce the methodology used for the study.

3. METHODOLOGY

We used an interpretive case study approach, as the research topic is relatively new and currently unexplained by well-accepted theories. Two case studies were conducted in the first stage of the research project as there was a scarcity of in depth studies or recognised theories at the time this
project commenced, suggesting the need for initial revelatory results best obtained from a study of only one or two cases (Galliers 1992). We used a socio-technical approach in order to understand the interplay of people, processes and technology. In the following description, only sufficient detail is given to provide understanding, for anonymity reasons. All names are fictitious.

The two companies were a large Australian retail organisation, OzRetail, and the Australian headquarters of a large multinational information technology corporation, GloTech. At the time of study, both companies were involved in many different formal and informal knowledge sharing ventures supported by codified technologies such as intranets and diverse repositories. GloTech had a large formal knowledge management initiative established globally, comprised of many parts, while OzRetail’s knowledge sharing ventures were local responses to emerging needs, rather than implementations of any formal corporate strategy. The differences in knowledge management maturity and industry type enabled greater insights to be developed with respect to some of the key issues in this study.

The units studied at each company comprised several teams of system developers, analysts and corporate marketers – the web services and marketing teams at GloTech; the change control, production, development and testing teams at OzRetail; and relevant team leaders and managers. Thus the views of people with a very good understanding of organisational knowledge management technologies and related issues were tapped, providing us with issues relating to both codified sharing and personalised sharing. Boer and colleagues (2002) suggested the need to include the social, technical and organisational issues involved when studying knowledge sharing. By mainly interviewing people with strong technical backgrounds, we could focus to a greater extent on the influences of the non-technical issues, as the technical issues are comparatively well covered by existing studies.

Data collected and analysed comprised audio-taped, semi-structured, single interviews and meetings; observations of knowledge sharing venues and knowledge technology use; and relevant documents. Seventeen interviews were conducted in total. The interview questions were extensive and literature-based, and probed the wider context of knowledge-sharing and knowledge-seeking choices. Each participant was asked questions in the role of sharer (e.g. “What are the issues preventing or limiting you from sharing knowledge?”). Developers were also asked about development issues and managers asked about relevant managerial issues. All participants were questioned about their understanding of knowledge sharing initiatives in which their companies or teams/units were involved. Questions were framed around the decision to share (or not share) knowledge with receivers (including codified and personalised strategies), individual rationale for the selection of channels for sharing knowledge, and issues that motivated or limited knowledge sharing. While technical and organisational issues were also identified (Lichtenstein et al. 2004), more than seventy per cent of the responses addressing motivational factors involved receivers in some way. Targeted questions to explore this paper’s topic probed the impact of perceptions of the receiver on sharer choices, e.g. “When do you share knowledge with others? What are the triggers?” Responses involving receivers later enabled us to identify strong connections between sharer beliefs, attitudes and behaviours to sharing knowledge, and sharer perceptions of receiver knowledge needs and behaviours.

Semi-structured interviews of an hour’s duration took place between July 2003 and October 2003. A rich data set was collected from the interviews, as well as the other sources. Following qualitative content analysis techniques (Mayring 2000), coded categories and concepts discovered in the interview transcripts were inductively developed while guided by key concepts in receiver theory and the receiver-based model of knowledge sharing (Figure 1). Concepts evolved to conclusive states over iterative readings, and were grouped into themes at the end of analysis. The remaining data was used to cross validate and enhance the themes identified.

4. KNOWLEDGE SHARING IN GLOTECH AND OZRETAIL

To provide context for the results that follow, we overview the knowledge sharing initiatives studied.

4.1 Case study 1: GloTech knowledge sharing

GloTech is experienced in knowledge technology, having supplied web-based technologies to customers for over a decade. Moreover, a strong knowledge management strategy exists at a global
level. However, in the city where GloTech’s Australian head office is located, the international formal knowledge management strategy has not yet filtered down to the local team level, and the knowledge sharing culture is noticeably team/group based. Many teams have their own intranets and are actively publishing to them, sometimes through the web services team. The Australian web services team develops internal and external web sites for the Australian branch of the company, while publishing and updating content for themselves and on behalf of other teams. Knowledge and information shared through these technologies tends to be official corporate rather than personal. On the web services team site, internet and intranet publishing instructions and procedures are shared, while on the marketing intranet, promotional and news material is published to keep employees and customers abreast of company events and news. However, importantly, the intranets are static, with no interaction taking place between users. Personalised knowledge sharing largely takes place within teams or units (rather than across teams or units), either face to face at desks, by email, or in meetings. As there is a high turnover of contract staff within teams, relationships are relatively (cf OzRetail) undeveloped, and thus relationships did not play a key role in motivating knowledge sharing. Finally, there are no incentives for sharing knowledge. Knowledge in the units and teams studied was only just being maintained, and the local intranets were difficult to use, team-based, static and under-utilised. Thus, the organisational culture was not particularly positive towards knowledge-sharing.

4.2 Case study 2: OzRetail knowledge sharing profile

In contrast to GloTech, OzRetail is relatively inexperienced with knowledge technology, having deployed intranets for only two years. There are no formal KM initiatives at the company, and most intranets have evolved from group motivation and are group-oriented in content. Few intranets currently exist beside the main corporate portal and a few product brand sites that manage marketing and selected sales. Intranets are also maintained by the applications development team, the software management team, and the change management team. The three teams work closely together to develop applications, together with an external software provider. The knowledge and information shared by these teams tend to be corporate rather than personal. Business processes are the main type of knowledge shared. The intranets are static repositories, and not used for interaction between users. Like GloTech, personalised knowledge sharing largely takes place within teams or units rather than across teams or units - either face to face at desks, by email, or in team meetings. No incentives are offered for knowledge sharing. Many of the people in the teams studied have worked at OzRetail for five to twenty years, and hold close working and social relationships with others both in and outside their teams. While most knowledge is shared within teams, there is more inter-team sharing occurring than at GloTech, in some part because of these relationships. Knowledge was freely shared in the units and teams studied, but again, local intranets were difficult to use, static and under-utilised. The organisational culture had been affected by a number of recent restructures over the previous decade, which had led to some guardedness in knowledge sharing.

5. RECEIVER INFLUENCES IN SHARER BELIEFS, ATTITUDES AND BEHAVIOURS

In this section, we present findings from our investigation of perceived receiver influences on sharers’ beliefs, attitudes and behaviour in knowledge sharing, at the two companies studied. Our study confirmed a number of known findings – namely, the role of good social relationships, and the exchange of value, in motivating and guiding sharers. The study has also broken new ground by suggesting the contribution of a range of other important and interesting factors. In Tables 1 and 2, we summarise key findings from the empirical study: sharer beliefs and attitudes about receivers that are motivated by receiver issues (Table 1) and sharer beliefs and attitudes about receivers that are motivated by sharer issues (Table 2).

We comment on the relationship between sharer attitudes and sharer behaviour. According to Fishbein and Ajzen (1975), attitudes are good predictors of intentions and actual behaviour. Moreover, sharers often reported their behaviour as well as their attitudes, in interviews. Thus, sharer beliefs and attitudes have important implications in terms of being indicative of sharer behaviour. In the discussions of Tables 1 and 2 that follow, we provide the voices of participants in order to illuminate the findings. We first discuss the receiver issues (Table 1).
Table 1: Receiver issues influencing sharer beliefs and behaviour (Case study findings)

<table>
<thead>
<tr>
<th>Receiver Issue</th>
<th>Sub-issue</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need to know</td>
<td>- Signal need-to-know</td>
<td>- Signal given if receiver needs knowledge</td>
</tr>
<tr>
<td></td>
<td>- Specialised job role</td>
<td>- Receiver specialised job role indicates need-to-know</td>
</tr>
<tr>
<td></td>
<td>- Inquiry</td>
<td>- Receiver asks questions</td>
</tr>
<tr>
<td>Desire to know</td>
<td>- Attitude</td>
<td>- Receiver enjoyment and interest in sharer knowledge</td>
</tr>
<tr>
<td></td>
<td>- Prior relationship</td>
<td>- Good relationship between sharer-receiver</td>
</tr>
<tr>
<td></td>
<td>- Exchange</td>
<td>- Receiver shared knowledge previously</td>
</tr>
<tr>
<td>Accessibility</td>
<td>- Cognitive capacity</td>
<td>- Receiver lacks relative absorptive capacity</td>
</tr>
<tr>
<td></td>
<td>- Channel access</td>
<td>- Receiver channel attendance</td>
</tr>
<tr>
<td></td>
<td>- Resources</td>
<td>- Receiver lacks time to listen to or learn knowledge</td>
</tr>
<tr>
<td>Anticipated use</td>
<td>- Performance</td>
<td>- Receiver / team performance needs improvement</td>
</tr>
<tr>
<td></td>
<td>- Altruism</td>
<td>- Receiver deserves compassion and help</td>
</tr>
<tr>
<td></td>
<td>- Power</td>
<td>- Receiver competes through knowledge acquisition</td>
</tr>
</tbody>
</table>

Table 2: Sharer issues influencing sharer beliefs and behaviour (Case study findings)

<table>
<thead>
<tr>
<th>Sharer Issue</th>
<th>Sub-issue</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interruption</td>
<td>- Interruptive receiver</td>
<td>- Sharer does not wish to be disturbed by a receiver who needs knowledge</td>
</tr>
<tr>
<td>Resources</td>
<td>- Lack of resources</td>
<td>- Sharer lacks resources to accommodate demanding receivers</td>
</tr>
<tr>
<td>Altruism</td>
<td>- Self-actualisation</td>
<td>- Sharer feels self-actualised when receiver is helped</td>
</tr>
<tr>
<td>Security</td>
<td>- Confidentiality</td>
<td>- Receiver should not have certain knowledge as it is confidential</td>
</tr>
<tr>
<td>Power</td>
<td>- Hierarchy</td>
<td>- Sharer hoards knowledge to retain position</td>
</tr>
</tbody>
</table>

5.1 Need-to-Know
Dominating receiver-based reasons for sharing was the sharer’s perception of receiver need-to-know.

5.1.1 Signal need-to-know
The default position for most sharers was that their colleagues had no need for their knowledge unless there was a definite signal indicating need-to-know. For example, one sharer commented:
“If the documents stored in my home directory are relevant only to me, then I do not see the point in sharing those files with others.” [Web Developer]
We note that the ‘relevance’ expressed was an assumption made by the sharer. In all cases where participants described only privately accessible work-related knowledge stored on their PCs, the participants mentioned various tips, guidelines and solutions that may – according to the participants themselves – have been useful to other employees. First, sharers had no way of knowing whether colleagues would be interested in these files as they had not shown them to anyone, nor had anyone asked relevant questions to cause them to show these files. A second concern, however, was that they felt that the files would not be valuable to others in their current informal personalised form, which they believed only they could understand.

5.1.2 Specialised job role
Sharer perception of receiver need-to-know was mostly founded on job role and the concept of job specialisation. For example:

“With Marketing … if there is something they need to know and they ask us about it, we are happy to share it with them” [Developer]

and

“I regularly won’t share knowledge with people simply because the detail that I know, they don’t need to know to do their job, and so it will just detract from their productivity by getting people confused. So I basically have to figure out what is necessary for them to know, and what parts can be skipped.” [Systems Engineer]

An example of how the same concept was applied to restrict codified knowledge sharing was:

“This content should not be shared with any other team such as Marketing as it not relevant to their work.” [Web developer]

5.1.3 Inquiry
If a receiver asked a question, it was also assumed that she had a need to know:

“It really does not make any sense for me to go and teach others. Unless there was a specific question, I would not normally share.” [Developer]

Importantly, sharers indicated that although they would certainly share by management directive, it was other colleagues’ needs that provided the greater stimulus:

“I share knowledge from my own initiative because I would rather share knowledge with people when there is a need for them to know, whereas if my manager tells me to document things, I might not agree with what she perceives as being important.” [Web developer]

5.2 Desire to know
Sharers indicated that whether others appeared to desire their knowledge was relevant to deciding what, and how, to share.

5.2.1 Attitude
Receiver attitudes of enjoyment, enthusiasm or interest affected a sharer’s motivation:

“Yes, I like to share knowledge with people who like to receive it.” [Manager]

and

“A person’s enthusiasm to learn affects how much knowledge I will share with them, because if they are not interested to know any more, then I will not tell them any more.” [Systems Engineer]

Some sharers were interested in sharing with others who had a learning attitude in general and who therefore might provide a fruitful exchange. For example:

“If a person had previously shared knowledge with me, then that gives me a slight hint that he will be interested in the information and that he is interested in learning new things. I would be more favourable towards sharing information
with him - not because he had previously shared information with me, but rather that I think he might have something interesting to say.” [Web Developer]

5.2.2 Prior relationship
Many sharers spoke of sharing with people with whom they worked, and relationships were clearly an influence on sharing choices. The following example illustrates the benefits of knowing others at a quite simple level:

“I would tell whoever I thought would be interested (about my knowledge).”
[Tester]

5.2.3 Exchange
Some sharers indicated a willingness to view knowledge sharing as an exchange with receivers for something of value. Further, all sharers indicated that they would be more likely to share knowledge with someone who had first shared knowledge with them. Some sharers saw the knowledge market as proportional:

“The amount of recognition (from receivers) should depend on the proportion of knowledge shared.” [Developer]

and

“I would share my knowledge more if I did receive more recognition. I generally just receive an informal thank you from the person I am sharing or teaching my knowledge to.” [Developer]

5.3 Accessibility
It mattered to sharers whether others could access their shared knowledge, and they made sharing decisions accordingly.

5.3.1 Cognitive capacity
Many sharers believed the cognitive gap between what they knew and could share and others’ capacity to absorb this knowledge was too great for there to be any point in sharing. For example:

“Everyone cannot learn everything.” [Web developer]

and

“There is only a limited amount of knowledge that people can hold at one time and if you give people too much information, they will become confused…A person’s prior knowledge limits how much knowledge I will share with them, because if they don’t know the basics, then it is pointless for me to share my more advanced knowledge with them.” [Systems Engineer]

Missing context was also mentioned as a reason why someone else would not be able to comprehend sharer knowledge. For example:

“Any information that I keep for myself in my own notes, would probably only be interpretable by me because I wrote them down and I know the context in which they were written” [Intranet developer]

Some sharers appeared to recognise their vital role in receiver learning (see Freire 2000, and earlier discussions in this paper):

“My preferred method is an interpersonal approach. Therefore I would prefer to have a chat to somebody. I prefer that because I feel that on a personal level I retain more of that information if somebody has actually spoken to me.” [Manager]

5.3.2 Channel access
Sharers generally believed that they needed to capture receiver attention through the channel usually attended by receivers, using their subjective perception of what that channel might be. For example:
"If you send an email to a group with a new idea, most people seem to dismiss it as spam, so if you put the knowledge on the intranet and provide a link in an email, that would be more effective" [web developer]

However there was no follow up on whether the intranet messages were actually read by email message receivers who were following through by clicking on the hyperlinks.

Time sensitivity of knowledge to be shared by the sharer and the importance of that message reaching the target audience were also key influences in channel choice:

“If there is something that is urgent that the group needs to know about, it’s either sent through emails, or basically, we just turn around and talk to our team.” [Web developer]

The number of receivers who were perceived to need the knowledge also impacted sharer choice of channel, together with other factors. For example:

“The intranet is really only for very high level information or information that is important to a lot of different people such as when you may have more than twenty people who need to know this information.” [Marketing publisher]

However, email had been appropriated by employees for other work purposes in addition to communication and knowledge transfer – in particular, collective and individual memory, accountability and commitment. For example:

“We use email so that we have a documented conversation for both sides.” [Web developer]

and

“(We use) email so that the message is documented, so if they forget or if I forget what I have said, they or I can go back to the message and check.” [Web developer]

and

“I can go back and follow up, if nothing is done with the arrangements made in email” [Marketing publisher]

The impact of perceptions of receiver channel attendance on sharer beliefs, attitudes and behaviour was clearly demonstrated by the following comment:

“Some time ago, I was not motivated to continue updating the intranet, partly because the information was not being published on time, and also I did not think that anyone in the company was reading it. Then my Manager came down on me saying that she reads it and it is important to her, so therefore I continued with my role in updating it.” [Web developer]

5.3.3 Resources
Sharers thought about whether others were too busy to listen to them:

“If everybody is really busy and there are too many projects being worked on, I will hold back my knowledge until the time is right.” [Team leader]

5.4 Anticipated Use
The very fact that the receiver could use the sharer’s knowledge to good effect was motivational, while any potentially harmful use of the knowledge had the opposite effect.

5.4.1 Performance
In high performance organisations, team identity is an important value (Clemmer 1995). In this study, team, individual (receiver), and company performance were often considered by sharers:

“When people are doing things in an inefficient way and there are a lot of other alternatives out there, I feel sympathy for them and I just want them to see the light and I would like to make life easier for them.” [Developer]
“When you work in a team, for the team to be productive, all the members of the team should have a common knowledge base so that the team can progress faster and improve their skills.” [Intranet developer]

Sometimes, performance considerations were combined with altruistic feelings towards teams:

“I love seeing my team succeed and I don’t think it is right not to share my knowledge with them.” [Team Leader]

5.4.2 Altruism

“Compassion is the root of infinite altruism.” (Dalai Lama and Jinpa 1997) We found that many sharers were compassionate and altruistic in their attitudes towards receivers:

“I share my knowledge with people because people need help and if I can help them, then I will help them because it seems like the right thing to do.”

[Team leader]

5.4.3 Power

Some sharers thought that receivers may want to wrest control through shared knowledge. This belief led to knowledge being withheld during a period when receivers could have a key impact on knowledge development:

“Also I have learnt that when I am working on a certain project it is generally wise to wait until the project is finished before revealing all the information. I have found that if you keep people informed along the way they often try to get involved either positively or negatively, so I have found that it is usually better to wait until the end. Whilst I am working on projects they are stored within my home account.” [Marketing publisher]

and

“Others want to get involved early if you let them know things beforehand.”

[Web developer]

and

“I will only give knowledge to others when it’s complete and accurate, as otherwise they might complain.” [Team leader]

We now discuss the issues that stem from sharer needs (Table 2).

5.6 Interruption

A few sharers made comments indicating that they saw receiver needs for their knowledge as intruding on their scarce time, motivating them to share. For example:

“If I am constantly being asked the same information regularly, I will publish it to the intranet to get people to leave me alone to complete my more pending daily tasks.” [Intranet developer]

5.7 Resources

While sharers thought about whether others were too busy to listen to them, receivers felt the same way with respect to sharer busy-ness:

“If everyone is really busy and does not have the time to help me, then I will look up the instructions site.” [Developer]

5.8 Self-actualisation

Sharers felt self-actualised when their knowledge was used by others as well as appreciated. For example:

“I do feel a sense of intrinsic reward, I guess, when Joe is using secure copy and he does work a lot faster than when he was using FTP. People will generally thank you when they see the benefit of using it themselves.” [Developer]
Sharers also mentioned the role of confidentiality in their decision to share knowledge with a receiver. Often this concept was mingled with the receiver’s need-to-know (a longstanding access control principle in information security management):

“Confidentiality is one thing (a reason not to share knowledge). If the knowledge is not necessary for them to perform their job, and if the information I am telling them might infringe on GloTech’s security or privacy policy, then I will not share that knowledge.” [Web developer]

5.10 Power
Sharers shared knowledge mainly in line with job positions. In this way, they demonstrated a desire to maintain their established positions and reinforce the organisational, unit or team status quo. As mentioned earlier, sharers were also aware of a power struggle that could ensue if knowledge was shared when projects or details were not yet finalised.

6. CONCLUSION
Considering receiver needs in knowledge sharing is an important emerging focus for knowledge sharing theory and practice. This paper has entered the arena by exploring how and why knowledge sharers consider receiver knowledge needs and behaviours when choosing whether or not to share knowledge and which channels to employ for knowledge transfer. A literature review enabled a discussion of different perspectives of knowledge sharing as well as initial development of receiver theory. A model of receiver-based knowledge sharing incorporating a feedback loop from perceived receiver knowledge needs and behaviour to sharer (Figure 1) was developed from the literature, and employed as a theoretical framework for investigating two case studies, providing potentially valuable results. A set of receiver and sharer issues based on receiver knowledge needs and behaviour was developed as a result of this research (Table 1 and Table 2), representing potentially important new findings for knowledge sharing theory and practice.

Clearly, the theoretical models have limitations and require further exploration. Receiver theory is very preliminary (although it was useful for this study) and needs further exploration through added literature search and empirical studies. The receiver-based knowledge sharing model (Figure 1) needs to be compared with other knowledge sharing models, and its advantages and disadvantages identified. It also needs greater exploration though empirical study. Research to explore how this model relates to other theories may give it greater value. The set of receiver and sharer issues linked to receiver knowledge needs and behaviour (Table 1 and Table 2) is also limited, having been developed from only two case studies, while the data on which they are based were sourced from a wider study of knowledge sharing. While in many ways this is an advantage – in that excellent context was provided within which to discover the diverse issues – in other ways it is a disadvantage: Richer data sets could be captured with more focused studies of the impact of the receiver on sharer choices in knowledge sharing. More importantly, the individual issues identified should be further explored.

Indeed, this study has suggested that perceived receiver knowledge needs and behaviours are important motivators and inhibitors in sharer choices in internal organisational knowledge sharing, complementing an emerging research strand that focuses on the role of individuals in building knowledge at the micro-level (e.g. Bircham 2003; Felin and Westerly 2004; Neve 2003). Although we cannot generalise from only two case studies, the findings indicate that perceived receiver knowledge needs and behaviours influence sharer beliefs, attitudes and behaviours in internal knowledge sharing. The findings also highlight that sharers are motivated from their own interests with respect to receivers (Table 2) as well as from receiver interests (Table 1). From the diverse results presented in the previous section, we focus on two key findings and their implications for companies aiming for more effective internal knowledge sharing.

In the first key finding, this study suggests that a sharer relies on her belief about whether a receiver needs her knowledge, before choosing to share. To form this belief, a sharer will rely to a significant extent on personal perceptions of job roles, specialisation, and specific receiver cues, such as asking questions. The default sharer belief is that receivers do not need her knowledge, and thus the default
attitude and behaviour is to choose not to share. Related to this finding, power can be manifested through such beliefs and attitudes, as existing hierarchies and power structures tend to be preserved (as was happening in the two case studies), and those workers with integrated knowledge can keep those workers with only fragmented knowledge in positions where they are unable to progress. This finding suggests that for companies to obtain more effective knowledge sharing, they need to move away from a paradigm of “need-to-know” (refer findings of 9/11Comm 2004). As the 9/11 Commission recently discovered, it is not enough to share only with those who need to know. Organisations must share far more freely, so that valuable isolated knowledge can be integrated and synthesised, suggesting patterns that can reveal important issues to be managed, as well as potential solutions – and more empowered employees. This entails proactively seeking out receivers who can integrate available knowledge but who may currently be unaware of its existence. Such receivers still need the knowledge and therefore influence the sharing.

In the second key finding, this study suggests that currently, a sharer develops a belief about whether a receiver is interested in her knowledge or is able to learn and apply it, prior to choosing to share it, using receiver cues such as enthusiasm and interest in learning. Moreover, many sharers are interested in actively participating in a receiver’s learning processes. Thus when a codified medium such as an intranet is present and applied in a static way, an important reason that it is under-utilised for knowledge sharing is the absence of a feedback loop from receiver to sharer and sharer to receiver. Implications from this finding are that new ways are needed to enable receivers and sharers to engage more effectively in dialogue and other collaborative learning processes in which the sharer catalyses receiver learning, using technologies and other avenues.

In conclusion, our study suggests that sharers tend to appear and share knowledge when they believe a receiver seems ready – whether that is because of perceptions of job role, receiver cues, channels used, performance, or other indicators. Companies therefore need to develop better ways to connect potential sharers to real receiver knowledge needs, including educating receivers on how to convey their knowledge needs more reliably.

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