This study is a qualitative survey and review of tacit and explicit knowledge management in an organizational context. It involves qualitative research and interview of fifteen employees and system designers in a medical malpractice insurance environment regarding their knowledge management habits and needs.

Traditionally, research has divided knowledge management into tacit and explicit knowledge. Models have emerged which state certain types of organizations should primarily focus of explicit knowledge management while others should focus on tacit in an 80/20 ratio. Further research intimated that 80/20 as a strict guideline should be eschewed in favor of strategies that bridge the gap between the two.

In this organization, explicit knowledge needs rarely exist and primarily serve to orientate new employees, while tacit needs and opportunities continually exist regardless of employment duration.

Headings:

Knowledge based systems
Knowledge Management
Knowledge Organization
TACIT KNOWLEDGE IN AN EXPLICIT WORLD: AN EXPLORATION AND AUDIT OF KNOWLEDGE MANAGEMENT IN AN ORGANIZATIONAL CONTEXT

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Introduction

A key workflow in any professional organization is information sharing. The type of information, the informational chain of command, the dissemination process and the troubleshooting mechanisms (both social and technological) are all key processes in the communicative phases of an organization. Whether it is training a new employee, introducing new software or updating company policies—formal company knowledge must be efficiently and clearly communicated and shared. As technology has evolved, so has an opportunity for better knowledge management and knowledge sharing practices. The Internet has become a staple resource in any professional organization—allowing for quick and clear communication that keeps an archive of itself. E-mails have allowed associates to write thorough literature quickly and communicate it immediately. Mobile devices have allowed information to be shared and retrieved from almost any location. Gone are the days where face-to-face staff meetings or policy updates are mandatory. Knowledge management and communication practices have evolved together as almost a single resource trying corporate policy with employees instantaneously.

But like all departments and organizations that have embraced the technological evolution, there must be scrutiny applied to the practice and questions must be
answered. While technology has had far-reaching impacts on communicative efficiency, is it as efficient as it could be? Which type of knowledge does an employee need on a day-today basis? Is there a dichotomy between tacit and explicit organizational knowledge? Efficiency and timeliness are two of the hallmarks every great executive or organization will point to when asked about success, so how can these be optimized in a knowledge management context? This paper will not only examine the current environment but also potential future environments. How can it be changed for the better, if at all? Information is widely recognized as a powerful tool in any professional setting and companies have continually implemented and updated strategies to curtail potential problems with new access to information—such as information overload or confusing interfaces.

This paper looks at knowledge as an organizational tool, an object that can be controlled and optimized to build a better working environment. To start, this paper will survey and summarize current literature regarding the subject. It will provide definitions and context to key terms mentioned including: knowledge management, knowledge sharing, intranets, knowledge, tacit knowledge and explicit knowledge. It will examine these concepts in an organizational context—by coding and exploring qualitative interviews at a company where a new knowledge management system was recently introduced. Interviews were conducted of both users of the interface as well as designers. This allows exploration of stated and actual purpose and any disconnect in between. The exploration of gaps in information dissemination and unused potential within the system will allow for seasoned discussions and future
recommendations of system advancements. As the system is in its infancy, there is no expectation of perfection and there is a belief that shortcomings of the existing system will better serve for analysis and discussion of the system’s long-term goals.

This study hopes to show the exponential need for tacit knowledge optimization and research in comparison to explicit knowledge, within an organizational context that traditionally was designated as explicit knowledge-centric.
Literature Review

Knowledge Management

For a simple definition, Zou and Lim (2002) define knowledge management as:

The management processes of creating, capturing, transferring, sharing, retrieving, and storing of data, information, knowledge experiences, and skills by using appropriate information and network technology, with the endorsement of total involvement, in organisational learning to enable knowledge acquisition throughout the processes.

It can also be thought of as an exercise or process for capturing a corporation's intellectual assets (Campalans et al., 2008).

It is important to note the dichotomy between the idea of knowledge management and the commodity of knowledge management. Informally, knowledge management has existed for centuries in the workforce. Artisans would pass knowledge onto their apprentices, coworkers would discuss strategies for more efficient physical labor and musicians would write compositions on sheets for dissemination. Around the early 1990s, however, there arose a widespread embrace of knowledge as a corporate asset in an organizational context (Hansen, Noria and Tierney, 1999). This acceptance of knowledge management as a discipline introduced new problems and solutions in corporate culture. Knowledge as an entity became widely embraced as a key ingredient in corporate efficiency, cohesion and competitiveness (Steinbeck, 928). Simply put, knowledge management as a discipline arose from the view of information and knowledge as commodities in a better working world. Early
adopters of the practice lacked optimization of both storage and dissemination in the knowledge sphere (Hansen, Noria and Tierney, 1999). Thus, various organizations approached knowledge management with different strategies based on personal need and optimal usage.

For two competing examples, project-based organizations and consulting firms generally pursue different strategies of organizational knowledge management. Bresnen, Edelman, Newell, Scarbrough and Swan (2003) write that project-based organizations typically face stronger resistance from the limitations imposed by the codification of explicit knowledge that many corporations employ. As project-centric operations lend themselves to a high rate of variance between day-to-day and month-to-month activities, strict guidelines of knowledge storage and dissemination lend themselves to be less useful. Knowledge capture, transfer and learning in this context rely heavily on various social cues and transferring processes from a community-based approach (Bresnen, Edelman, Newell, Scarbrough and Swan, 2003).

Consulting firms, however, have typically embraced the codification approach to KM that some organizations have shied away from (Hansen, Noria and Tierney, 1999). Companies such as consulting firms tend to encounter similar problems or projects multiple times, thus codified and archived knowledge is more useful than companies who constantly change clientele or markets. A good knowledge management strategy should mirror the organization’s overall competitive strategy (Hansen, Noria and Tierney, 1999). The difference in corporate environments and the day-to-
day life of an organization can tip the scales towards the necessity of explicit or tacit knowledge aggregation. While this paper will explore that difference later, it is important to note that the difference plays a large part in effective KM strategy.

Codification strategies tend to partner with explicit knowledge while more off-the-cuff approaches tend to reside in organizations that disseminate and aggregate knowledge tacitly (Stenmark, 2002).

In terms of KM’s orientation within an organization, companies have taken various approaches; some have incorporated it within their IT departments, others their communication departments and some as a standalone discipline. Hariharan (2005) proposed four pillars of corporate KM: leadership, culture and people; KM processes and technology, relevance to organizational business practices and KM measurement. Hansen, Noria and Tierney (1999) argued that the specific location of a KM department is not as important as optimizing and assuring interaction within the KM department and other communicative roles within the organization. Many companies have chosen to default this to the IT department, as they generally control and install the communicative tools used to transfer and share knowledge within an organization—whereas a communication department of a company is generally used to transfer and share knowledge outside of an organization. Like a coding strategy, strategies enhancing KM’s position within an organization and optimizing interaction with other departments can vary widely depending on the organization. Gottschalk (2014) notes that KM should be oriented within a company to maximize its *absorptive capacity*, which he defines “a dynamic capability of
processing knowledge that enhances organizational innovation". He extends absorptive capacity’s definition as holding the follow three assumptions:

* Absorptive capacity depends on prior related knowledge. Without some prior related knowledge, the [employee] will not be able to accurately determine the potential value of external knowledge. This implies that absorptive capacity is domain-specific.

* An organization's absorptive capacity depends on the absorptive capabilities of its individual members. However, it is not simply the sum of its members’ absorptive capacities. Rather, it depends on the links between individuals as well. Thus, the organization's absorptive capacity is formed from an overlap in individual members' knowledge across and within units. These overlaps imply that absorptive capacity is unit-specific and case-specific.

* An organization's absorptive capacity is path-dependent. Accumulating absorptive capacity in one period will permit its more efficient accumulation in the next. Likewise, in an uncertain environment, absorptive capacity affects expectation formation, permitting the investigators to predict more accurately the nature and potential of new knowledge. These two features of absorptive capacity - cumulativeness and its effect on expectation formation - imply that its development is path-dependent (2014).

Absorptive capacity not only affects but the transfer and accumulation of additional knowledge within an organization's KM, it also optimizes the recombination of KM as new material is added. Recombination is the re-configuring of a company's knowledge archives to account for and add new knowledge to an existing database—sometimes this is merely adding information and sometimes it is changing existing information to better accommodate added knowledge (Gottschalk, 2014).

The above strategies exist for the core purpose of ingratiating the discipline of knowledge management smoothly into existing corporate culture. The biggest
mistake companies can make is isolating knowledge management. Regardless of whether an organization places KM within existing departments or creates new holdings based around KM’s existence, KM must interact and form a symbiotic relationship with however communication is transmitted within the company. KM, when isolated from information technologies or communicative software, suffers significant drawbacks and fails an opportunity enhance the messages given in an organizational context (Hansen, Noria and Tierney, 1999). Thus, this paper defines knowledge management as *the organized and purposeful collection, storage and dissemination of knowledge in a professional environment.*

**Knowledge sharing**

Deeply embedded in the organizational discipline of knowledge management is the application of knowledge sharing. Thus, the literature surrounding knowledge sharing typically overlaps with the ideology surrounding knowledge management and rarely offers much distinction between the two. This paper will attempt to identify the vague differences and expand upon the importance of each.

For some basic definitions of knowledge sharing, refer to Table 1 below:
This paper echoes these ideas and defines knowledge sharing as the transfer of knowledge, both tacit and explicit, between various levels, members or departments of an organization. This transfer can be manager-to-subordinate, executive-to-department and, arguably most importantly, coworker-to-coworker. Knowledge sharing is clearly a branch of knowledge management (as part of the definition of knowledge management includes dissemination) but is the most difficult to quantify. In addition, there is a dearth of analysis available social constructs that support organizational knowledge sharing (Bresnen, Edelman, Newell, Scarbrough and Swan, 2003).
While difficult to quantify and even more difficult to exert control over, researchers and professionals alike have noted the importance of knowledge sharing optimization. Massey et al. (2001) write: “Effective KM [and by extension knowledge sharing] needs to address complex interrelationships among people, process and technology in a balanced manner.” When an IT department uploads a software installation and usability guide, it is easy to track the effectiveness of this explicit knowledge sharing—is the software being utilized and are employees comfortable with it? Tacit knowledge sharing, however, would be something similar to two salesmen discussing a strategy for landing an individual client, or patterns they have noticed developing in the environment over the last few years.

This type of knowledge exchange is neither uniform nor consistent which therein presents the quandary of tacit knowledge management; the salesmen could write down “Appealing to the client Dr. John Doe consists of playing golf with him, discussing the professional baseball team and asking him about his children’s accomplishments.” While this might be true and can technically be written down, it is neither usable to a large portion of the company, nor is it relevant to the job as a whole. Moreover, if Dr. Doe purchases from the company or declines, the information quickly reaches levels of diminishing returns that render it near worthless.

In all practicality, researchers have eschewed the idea of formal codification for this type of tacit but important knowledge share and transfer. Some might argue that
departments within an organization could pursue and codify these highly-specific exchanges of knowledge transfer but Gold et al. (2001) argue that optimization of knowledge sharing protocol in individual departments can be detrimental to knowledge sharing consistency in the organization as a whole. In addition, knowledge management and sharing within an organization should mirror the business strategy of the organization as a whole and thus refactoring strategy on a department-by-department basis damages the image and strategy of a corporation as a single entity (Goodwin, 2009).

So what is the solution to tacit knowledge transfer from a knowledge management context? One solution proposed involves a lack of formal codification attempts for collaborative and individual knowledge, but rather emphasis on creating an environment where such knowledge transfer is encouraged and rewarded from corporate leadership. Effective executives in companies that encourage and optimize KM will demonstrate knowledge sharing in practice every day (Damodaran and Olphert, 2000).

For formal knowledge that can be codified and disseminated, Hansen, Noria and Tierney (1999) note the strength of an IT department when paired with knowledge management. Technological tools and advances allow for the quick and efficient knowledge-transfer within a corporation. It hearkens back to the earlier tenet expressed that KM is utilized most effectively when paired with existing department
and tools. A primal repository more and more IT departments are using as a knowledge management hub is an organizational intranet.

**Tacit versus Explicit Knowledge**

These two broadly defined categories of professional knowledge have been referenced and discussed the preceding sections of the literature. This section will attempt to clarify and expand upon the definitions of these types of knowledge and their importance in the KM landscape. Explicit knowledge is mostly self-explanatory and has been defined quite clearly already in the earlier part of this review; however tacit, which by its very definition is both vague and relative, requires a bit more scrutiny and discussion.

While this paper has discussed the intangible and hazy nature of tacit knowledge, it has thus far shied away from discussing the social nature of tacit knowledge. Tacit professional knowledge, which was a term first coined by Michael Polanyi in 1958, is knowledge internalized and obtained through experiences, rather than teaching. Maier & Remus (2003) described it as knowledge exclusively in the heads of people. The dichotomy between tacit and explicit knowledge has been explored and challenged by KM experts from the beginning of the discipline; explicit knowledge has been referred to as the “know how”, while tacit knowledge has been referred to as the “know what” (Prusak, 2001). Entire corporate KM strategies are usually devoted around which of these two knowledge ideas a company believes it would benefit the most from. Explicit knowledge based KM usually involves a codification
strategy with an emphasis on documentation and retention of protocol and knowledge while tacit knowledge based KM involves a strategy termed “personalization” and relies on thorough communication lines and person-to-person transfer to fully flourish (Hansen et al., 1999). They go on to write that organizations should pursue an “80/20” approach regarding explicit versus tacit knowledge. If the organization believes it would benefit more from explicit knowledge, then their KM should focus 80% of its resources on explicit knowledge-based solutions; whereas the opposite holds true for companies that believe they would benefit more from tacit KM (1999). Maier & Remus (2003) later challenged this approach, arguing that while it might have been true when first suggested; as organizations became more globalized the dynamic shift would have to change. They suggested a “bridge the gap” approach to explicit versus tacit knowledge, regardless of organization (2003). They created a table detailing the differing roles of tacit and explicit knowledge within organizations along with recommendations for bridging the gap—a portion of that is shown in Table 2 below (2003).
As can be seen, the progressive theory towards KM is developing a synergy between both tacit and explicit knowledge. No matter how highly regulated an organization is, there is no substitute for the implicit, personal knowledge and skill set employees will gain on the job. And no matter how off-the-cuff and unregulated an industry is, there still be standardized, codifiable knowledge from which employees can benefit.
Researchers have noted, however, that while bridging the gap may be an effective strategy, it will not change the core principle that is the dichotomy between explicit and tacit knowledge. They are distinct differing forms of knowledge and cannot be made different or change into the other (Cook and Brown, 1999). Bridging the gap should and does not mean homogenizing the two, but rather treating them as equally important. It is useful to treat them as separate aspects of knowledge, but not necessarily separate forms of knowledge (Tsoukas, 1996).

The inherent problem of tacit knowledge management and sharing, however, is that often experts or employees cannot say things they know (Schön, 1983). Often times those with tacit knowledge attempt to express it in terms that are obviously inappropriate and insufficient, thus creating a gap between the description and the reality (Stenmark, 2002). He goes on to suggest the best way to enhance tacit knowledge is for executives and KM to monitor the actions of its employees. Tacit knowledge is best expressed through actions, not descriptions and thus “by monitoring these actions, the organisation can learn where certain kinds of knowledge reside and thereby leveraging the tacit knowledge of its members. Individuals benefit both by being able to find knowledgeable colleagues and by being themselves identified as knowledgeable” (2002).

In some respects, the immutability and vague character of tacit knowledge benefits its transfer. People do not tend to interpret written text and protocol uniformly, so by learning via experience or action, tacit knowledge becomes ingratiated within a deeper level of an employee (Stenmark, 2002). Baumard says that when knowledge
acquisition necessitates contextual aggregation as opposed to written protocol, employees experience acquisition at a much more personal and committed state. He comments that perhaps the employees most able to obtain and retain tacit knowledge are those committed most to the organization (1996).

Regardless, the handling of tacit knowledge and the relationship between tacit and explicit knowledge are two of the primary challenges KM and IT departments face in the corporate environment today (Goodwin, 2009). Organizations may never be able to commoditize and harness tacit knowledge; by its inherent definition it might be impossible, but ongoing research points to ways organizations can best optimize organic tacit knowledge transfer.

**The Organizational Intranet**

Broadly, an intranet refers to any web-based connection that exists within a confined space—usually behind a firewall and access is restricted to an organization’s employees (Campalans et al., 2008). The difference from an intranet to an internet is similar to the difference between an intrastate and interstate highway—one allows for vehicular transport outside of state lines while one facilitates inner state transport. Some view organizational intranets as department internets—allowing for the exchange of information between sectors of the company. As was mentioned earlier, KM is best constructed and framed from an organizational level, so the intranet would have the same applications regardless of
department. Some sectors of the company may get more use out of intranet resources than another, but the privileges and resources would be uniform throughout.

Intranets are primarily seen as repositories of aggregated information and it is up to the intranet-maintainer (usually the IT department) to categorize and structure the intranet’s resources in a way that best utilize their capabilities while allowing for employees to locate and interact with each other and each others’ information capacities (Stenmark, 2002). In a continuation of the knowledge management model presented earlier, an intranet is a technology platform built to facilitate knowledge sharing in a knowledge management strategy. Built off the platform of the Internet, researchers have identified four key ways an intranet facilitates an organization’s efforts (Campalans et al., 2008):

- **Business Processes**: Here, data from business procedures is easily consolidated into a centralized location
- **E-mail and Communication**: An intranet allows for instantaneous and globalized communication procedures and document transfer. With web-based connections, users can access the internalized connection regardless of location and utilize the data located within.
- **Information Sharing**: An intranet represents an organization’s best asset for accruing intellectual capital and uniform information such as customer procedures and phone directories.
- **Collaboration**: Intranets also provide effective platforms for cooperative work environments

An important distinction to note is one between internal web servers and intranets. Internal web servers are generally just web browsers to search internal functions while intranets are “the larger environment inside an organization, made up of the network, internal web, newsgroups, e-mail, mail-lists and other tools and technologies” (Hills, 1997). A well-run intranet allows users and members to express their informational and knowledge capacity for professional benefit. It allows greater exposure to organizational experts and can provide a platform and foundation for both tacit and explicit knowledge transfer (Laalo, 1998). Succinctly, an optimized intranet provides access to organizational knowledge.

The current environments of KM research models suggest that organizational KM should be in the “bridge the gap” phase regardless of organization type. While the 80/20 model has been routinely challenged and overturned, the “bridge the gap” model has yet to be fully explored. Thus, there is little tangible evidence that measures tacit need versus explicit need. Traditional literature says different organizations will have different concerns and thus explicit versus tacit focus depends on the type of work but the “bridge the gap” model does little to define how this reality is changed. How is explicit knowledge more beneficial now in collaborative work environments and how is tacit knowledge beneficial in procedurally-based environments? Has the paradigm shifted in regards to
knowledge needs? This paper looks at knowledge needs, both tacit and explicit, in an organization traditionally placed in the explicit side of the debate.
Methodology

Participants and Purpose

This study was conducted with employees at a medium-sized medical malpractice insurance company. The study was divided between Knowledge Management system designers and Knowledge Management system users. Fifteen employees were interviewed—twelve users and three system designers.

Table 3

<table>
<thead>
<tr>
<th>Department (quantity)</th>
<th>Risk Management (2), Consulting (2), IT (4), Regulatory Affairs (1), Claims (3), Communications (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age range (quantity)</td>
<td>20-29 (4), 30-39 (5), 40-49 (3), 50-59 (3)</td>
</tr>
<tr>
<td>Gender (quantity)</td>
<td>Male (5), Female (10)</td>
</tr>
<tr>
<td>Average years in job (range)</td>
<td>7 (8 mo. – 19 years)</td>
</tr>
</tbody>
</table>

The organization had a functional KM system in place at the time of the interview. While an organizational intranet had existed for many years prior, interviews took place shortly after the implementation of a new codified KM system for explicit
knowledge. Their KM discipline was housed inside their IT department and included document storage and sharing software (OnBase), technologies for virtual interaction and spread of information (WebEx) and a repository/help desk for common explicit issues and questions employees had about procedures and technologies used often within the organization (Knowledge Base).

The KM system was developed in-house by the organization’s IT department. The recently updated Knowledge Base system included roughly eight months of planning followed by six months of construction and two months of implementation. Reviews occurred roughly six months after implementation, but reviews covered employee interaction with all facets of the KM system, not simply Knowledge Base. It should be specified however that interviews were conducted the qualitatively evaluate employees’ knowledge needs—both inside and outside of a knowledge management system. Both tacit and explicit needs were evaluated. As gauging tacit knowledge transfer and consumption is both difficult and inexact, probing questions were needed to parse employees’ knowledge needs into explicit and tacit.

Participants were strongly encouraged to recount their knowledge consumption habits, even if this occurred outside of the constructed knowledge management system. It was explicitly stated that the study was an evaluation of knowledge transit throughout the company and that this can take place system-to-employee or employee-to-employee. Some participants rarely used the system and their answers were given equal consideration and merit, as the information was still valuable.
They were also strongly encouraged to elicit beliefs pertaining to codified knowledge systems and its usefulness, while praising and criticizing various aspects of the KM intranet.

**Procedure**

A purposive convenience sampling strategy was used in coordination with the IT department to recruit employees from the organization. The author of this study conducted each qualitative interview. Interviews had no set duration—length varied based on thoroughness of response or extent of opinions. Every participant consented to being interviewed and all but one consented to being recorded; the employee who refused recording had their interview transcribed as it took place. The semi-structured interview was developed for this study in conjunction with the author and the paper’s advisor. The semi-structured nature allowed for the overarching direction of the interview to remain on point while allowing the interviewer to probe deeper when employees’ responses merited more exploration. Designer interviews were conducted first, as these responses helped frame questions and probes for user interviews. Those surveyed included a mix of managers and general associates within a department.
Analysis

Interviews, once transcribed, were coded into themes and excerpts from the interviews were assigned to these themes: this is a process called open coding. The author arranged codes into a hierarchy so that broad themes could have more specific content inside them. The software QSR NVivo was used in the coding process to iteratively create, update and optimize the codes.

The author was the only analyst of the data. The author assessed validity by subjecting data to an examination and re-examination process. Subsequent data could sometimes present challenges to existing codification processes: this was both welcomed and taken into account in the updates of existing codes. The author also used well-established analytic criteria to classify and interpret raw data. Designer and user interviews were interpreted differently. The designer interviews were first coded based on overarching KM strategy and vision for the discipline, while users’ were organized by their interactions with the system, knowledge needs, behavioral beliefs and interaction with KM strategy. In order to best preserve anonymity—as it is a small, local branch of an organization—users’ specific characteristics will not be attributed to them in the context of their remarks. Rather, their characteristics will affect the broader discussion and look at the meta-level of the interviews. Listed below are the designer and user questions:
Table 4

**Designer questions:**

1. What was the overall goal of this new system?

2. What are the short term and long term goals of the system?

   What existing challenges did this new system seek to address?

   What improvement have you seen since implementation of the system?

   Was this system designed to be used with existing technologies?

   Does it house any communicative features? Or are users expected to utilize other organizational technologies--like email and instant messaging--to communicate questions or concerns about the system?

   How do you receive feedback? How were the inputs like?

   Has the knowledge base allowed you to be more hands off in terms of disseminating organizational knowledge?

   Do you know if the users are using other technologies (other than the knowledge base) to share knowledge with one another?

Table 5

**User questions**

**General questions about the interviewee’s background and work:**

1. To start, could you please tell about your professional and educational background, and your current position

2. What kinds of work do you do? Is it done in groups or mostly alone?

3. Do you have people reporting to you, do you have one or more bosses?

**Context of knowledge sharing**

1. How do you generally receive and share information with your colleagues
2. If you have a question about an organizational concern, what’s your first step?

Can you give me an example of the time when you need to seek out advice or inputs from another person to do your work?

Would you turn to your connections outside the organization to solve any work-related issue? Do social media help with this?

Do you use specific social networking mechanism to expand your social network? (e.g. networking events)

**Social and communicative technology use:**

1. What tools (social media or older social technologies such as email/phone/IM) do you use to interact and share information with your colleagues?

2. What technology do you think is most effective for communicating organizational knowledge? ie do you get more understanding from a phone call, an email, an instant message, the knowledge base system?

3. What type of information do you send or receive via this tool/media?

**The use of knowledge base**

1. How do you use the knowledge base system?

2. What type of information do you share on it?

3. Who do you share information with?

4. What problems did you have or notice others having with the old system?

5. What improvements have you noticed with the new system?

6. What are the limitations of the current knowledge base system?

7. Do you use any technologies in conjunction with it to overcome these limitations?

How do you think the system could be made more relevant to you and your work?
Do you think the system would be more useful if it incorporated more or different technology?

**Designer Interviews: Strategy**

At the top level, the goal of the organization’s KM strategy was to make the explicit and tacit knowledge consumption into and iterative, interwoven discipline that gave employees the tool’s necessary to excel. “I thought of it like the self-checkout line at the grocery store,” said one designer. “We provide the framework for allowing users to accomplish the goals themselves without us having to actually be there and hold their hands through the process.” Designers also acknowledged the iterative nature of information dissemination meant that only a skeleton system could be immediately constructed and that iterative process would feed into the feedback loop for system optimization and improvement. “I think the idea is from the support perspective, as we hear of more and more issues that come up, we can respond telling users to check here first and then get back to us.”

In regards to the 80/20 model, the designers felt it had a need for a more codified knowledge system. As malpractice insurance involves a lot of protocols, litigation, claims work and risk assessment, there are standards and practices that designers felt employees needed constant access to. “I mean so much of our departments’ work with clients revolves around red tape and legalese. There are precedents that have to be observed, loopholes, exceptions and everything else in terms of the legal model. We have to provide a resource for them to access all that quickly.” However, there is very much a lack of specified knowledge management professionals or knowledge
management goals within the IT department. Certain facets of KM are represented passively and occur as an extension of more pragmatic programs, but rarely is knowledge management specified as an actual discipline or with actual overseers within the department and system. “We view the exchange of information as a passive part of this process. It’s just going to happen. The idea is that people are helped by our system and tell that to their coworkers and thus everyone gets a little bit of benefit regardless of whether everyone accesses the system or not. We don’t necessarily have stated goals to facilitate that but we think facilitation will happen as a result. We’re not too concerned about knowledge management as a thing, we think its all part of a single system and our system says that.” However, the literature has shown that without stated and purposeful attempts at knowledge management advancement, there can be a lack of uniformity that threatens the coherence of the whole system.

There is little attention given to tacit knowledge management. The system includes very basic communicative features—such as the ability to leave comments on resources, access and upload to document repositories and find e-mail address books. But there is no given design for professional conversations to occur (like forums or instant messaging services), or knowledge experts to be questioned. “Of course everyone here uses e-mail as the primary method of communication,” one designer said, “and other communicative tools to network but there are no plans to enhance the system with communication at this time. Maybe in the future but currently it’s on the backburner of features we’re hoping to implement.” The
department is currently trying to enhance awareness of the resource as means of combating potential low usage, “We’re trying to highlight it in the company newsletter and update [IT’s] e-mail signatures with a link to it. We just want people knowing about it. We want it to be their first resource to consult whenever an issue about how to do their job arises.”

The department believes that the primary cause of workplace slow down is IT-related issues and thus focused on overhauling their Knowledge Base helpdesk system within their overarching KM intranet to combat this. “Yes, the primary questions submitted with our intranet are IT-centric ones. I mean of course I’m in the IT department so it will seem that way to me but I think it’s a correct assumption overall too. We’ll receive tickets about access problems or software malfunctions and so [Knowledge Base] was updated to help with these issues. We put our most common ones in there first and then more general ones, but now users do not have to constantly question us. They can find the answers themselves.” Eventually, given a positive reception, the department hopes the optimized Knowledge Base system would encompass the entirety of the company’s intranet. “There has been some discussion about this being a viable replacement as the company’s intranet, as opposed to just a part of it. We want to bring all company information we can into this sphere and make it a centralized resource. Right now, even though the intranet could be considered a centralized resource, there’s still significant navigation to do within it. We think it we include everything in one interface, it will make it easier for us and the users.” The designers decided to start by porting over the primarily-IT related resources to this
new interface, as they felt the IT-centric questions were the ones that would be used the most. “We wanted to port over IT as sort of a phase 1, and then reevaluate over time as we saw reception.” One of the primary aspects of the overhaul was aesthetic updates, “We saw a lack of use before this and we think a big reason was the interface just turned people off. It was too professional and didn’t encourage exploration. We wanted to include color photos, bright arrows pointing to important functionalities and clearly spaced directions to make it easier to read. We just want people to use this and to want to use this.”

Thus far, the organization appeared to have chosen to take a passive approach to knowledge management. While they actively coded and organized existing explicit knowledge sources, it has been from a desire to optimize departmental time and eliminate unnecessary workload from the IT’s daily and weekly schedules. In this mindset, they have directed much of their attention towards the Knowledge Base system—a codified repository of common inquiries and requests mostly IT related.

**Designer Interviews: Feedback**

The update to the Knowledge Base system, and the hope for its eventual merger with the rest of the KM intranet, arose from constant mixed feedback the IT department received about the company intranet. “I mean we rarely had people coming up and saying our resources were bad, or inadequate. But it was a matter of use. So much of our time was spent responding to questions and tickets and e-mails regarding items that were clearly defined and explained in our repositories,” a
designer said, “Sometimes we felt our attention was being diverted from other
important projects to answer these simple questions. We’d answer it and include a link
or directions to access this answer themselves in the future, but in a week we’d get
another ticket or request that might not be the exact same topic, but was either closely
related or the answer was closely located to where we sent them last week.” All
interviewed the primary problems with the previous system stemmed from both a
lack of use and a lack of desire to use. “People searching and answering their own
problems was the exception rather than the rule. You know we’d feel some frustration
answering the same questions over and over but at the same time we’d look and say
that’s on us. We have to not only design a resource that answers questions; it has to do
so in a way that grabs users. Now it’s more convenient to consult this resource than
wait in a ticketing line to hear from IT.”

Designers held split opinions regarding the current state of the updated Knowledge
Base system. “Feedback has been overwhelmingly pretty positive so far by those that
have used it,” one designer said. However, he noted that the subset of people who
had actually used it was fairly small, “I believe so far it is doing exactly what we
intended it to do.” Another designer had a different opinion, “I would say, thus far,
results have been a little disappointing. There’s a little more use than there was before,
but it’s really tough to see a lot of work put in with not much gotten out of it yet.” The
designer believed the primary issue was awareness. He explained, “Right now, we
just need to make sure people know it’s different. Everyone knows about the old system
but that’s a problem because I’ve told you about the old system. Now it’s a new system,
and they need to know that.” The designers believe recognition and familiarity with the system is key to satisfying the employees’ knowledge needs.

**User Interview: Feedback**

In terms of satisfaction with the system when used, most employees interviewed expressed satisfaction with the system. “I was having problems with my computer but I could go through my phone and pull up what I needed. And I actually did go into Knowledge Base and do a little research to figure out what I needed to know. It didn’t take long and I could access it remotely, it was great,” one employee said. Another agreed, saying, “The interface is nice, the instructions are simple. There are clear pictures displaying what steps to take, what to click, where to go. I’ve used it a couple times and it solved my problems quickly.”

None of the interviewed reported any problems with the updated system while several expressed concerns with the old system. “I just really didn’t use it [the old system] that much. It was cumbersome and I could just send an email to [IT] and go about my day until I got an answer.” Another was more critical, saying, “I have no idea what its day-to-day use was supposed to be, honestly. I mean who consults the HR handbook anymore after like, your orientation? I don’t even know what else was on there. Who cares?” The employee continued, hesitantly calling the new system an improvement, “They had a training seminar I popped into. It wasn’t mandatory but they showed the new system up front and it definitely looks a lot better. I mean I don’t need it for anything but at least I know it’s there if for whatever reason I do.”
While satisfaction feedback was generally high, usage was decidedly low. A table of weekly usage is shown below:

**Table 6**

<table>
<thead>
<tr>
<th>Usage (weekly)</th>
<th>(Employee #)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 or more times</td>
<td>0</td>
</tr>
<tr>
<td>1-3 times</td>
<td>2</td>
</tr>
<tr>
<td>0 times</td>
<td>10</td>
</tr>
</tbody>
</table>

As the table shows, close to 80% of employees interviewed do not access the resource once in a given week. It should be noted that many employees considered Knowledge Base to be the entire KM system and thus responses had to be probed further to assess their validity. “I accessed an article once,” one user said, “The VP of our department had a question and...I can’t remember which article that was...but I emailed it to him. I've also liked (a feedback feature) two of the articles.” Another employee echoed this sentiment of sparse usage, “That's the thing that was put up back in December right? Yeah I’ve gotten on it maybe once or twice since then, but
actually recently I did it,” they concluded. Others were more abrasive regarding it;

“Interviewer: How often do you access the intranet here? Interviewee: The what?
Interviewer: The intranet. Like the HR handbook or more recently the new Knowledge Base system, the inner-company web pretty much. Interviewee: Yeah I’ve heard of the company web but what the heck is Knowledge Base? Interviewer: It’s the new help desk and knowledge management system the IT department recently implemented. It’s an organized resource where users can log on and find the answers to frequent questions. Do you ever use it? Interviewee: I’ve never even heard of it. Interviewer: Now that you’ve heard of it and know a little bit about it, would you use it?
Interviewee: Nope. Interviewer: Why not? Interviewee: Because no one actually would. It’s a waste of time. If I can’t figure out something within 30 seconds by myself I’ll just send a request to IT or go ask someone, me and everyone else aren’t going to waste time scrolling through a website trying to find something when we have other stuff to do.”

Many employees opined that the lack of usage stemmed from the needlessness of the resource once the knowledge was obtained. “I mean I’m sure it’s a great resource but I probably know everything that’s on there and anything I don’t know isn’t relevant to my job at this point,” one employee said. Another employee reinforced this point, saying, “Once the computer is turned on, my clients aren’t asking for things that can be found on that site. They’re asking for things in here *points at head*.” A few users felt the system would be most optimally used for training purposes. “I can see a scenario where this would be a great resource to pair with employee training.
New employees come in and have all these questions and there may be some programs they aren’t familiar with and this guide is great for that. It shows and tells them what to do. And then once they know what to do they don’t need the guides anymore,” an employee explained. Three other employees also referenced training scenarios in questions regarding improvement of usage, suggesting that this codified resource would be most beneficial to new users.

Nine of the twelve interviewed could not give an answer regarding content additions that would make the system more suitable for them or their departments. “I really can’t think of anything. There’s so few occasions where I have any questions about anything,” one employee said. “Umm, no, not that I can think of,” an employee responded when asked about content additions, “We have a small department so even when we get new hires they pretty much learn the ropes within the department quickly. I’m not sure adding like pages about our stuff online is going to help much. I mean I guess it couldn’t hurt but I’m not sure it would really do anything.” In a similar vein, all interviewers agreed that the system’s existence had a beneficial purpose, “Oh yeah, just because I personally don’t use it doesn’t mean it’s a bad thing. I mean you have documents stored there that people could access, you have answers to technological questions and you have ways to contact IT. There’s nothing bad about it at all. It should definitely be there,” an employee said. Others agreed, “I mean if it helps one person a month that’s better than not being there at all. I don’t access it but someone else probably does. It’s a good thing.”
**User Interviews: Collaboration**

Users also did not feel the system was particularly designed around or encourage collaboration. “I mean not really,” one user responded when asked if collaboration existed in the organization’s intranet, “There might be a few ways here or there to leave comments or something but pretty much you get on yourself, find what you need and get off. There might be a person looking for exactly the same thing or logged on right as you are but you have no way of knowing.” Another user confirmed this claim, saying, “I mean accessing the information is a very individual thing. You yourself need something, so you log on, get it and log off.” They believed this made sense and shouldn’t be changed, however, “If someone needs something it’s just that one person. I don’t see a problem in it being a solitary thing when a solitary person needs that one tidbit of info or a document or something.” Some users said there was some collaboration that took place, “I mean when I get on OnBase, there are documents that other people have put on there. I’m taking what others have uploaded at some point, so there’s a little bit of back and forth.” Overall though, most users felt there was little to no collaborative capability in the current iteration of the KM system.

**User Interview: Tacit v. Explicit Knowledge Needs**

Finally, responses were coded based on their knowledge needs. Employees typically indicated that job improvement and related knowledge consumption was an iterative process. “I think people in our department are constantly improving, I think employees in general are constantly improving,” an employee mentioned, “If someone came in and asked me how to do my job, I could show them what forms to fill
out, what the chain of command is, how to use different programs and stuff like that but there’s many things you just can’t be told in general. It’s just learning how to do your job or my job and it takes time.” Another employee agreed, saying, “It is a lot of contextual stuff. No matter how streamlined or similar your responsibilities are assignment-to-assignment there’s differences but I can’t really describe them to you, it just depends.” Within that scope, employees continually referenced the individual and contextualized responsibilities any job entails. Employees interviewed were in several departments—some (claims) traditionally designated as traditionally codified-seeking departments while others (communication) have less structure in their typical responsibilities.

Employees within the more structured departments were asked how often they accessed codified resource; the response was mixed to low. Interviewer: “How often would you say you access any resource on the company’s intranet?” Interviewee: “Like OnBase? I get on there a few times a week. There are forms I need to fill out and those are stored on OnBase, so I just log on, grab the form, print it out or digitally fill it out and I’m good. Interviewer: “Does the intranet ever solve any professional problems for you? Beyond just using it to access forms, do you ever use it to access help? Interviewee: “Like the help desk? Yeah I submit tickets when something isn’t working. Interviewer: Well, beyond IT-related stuff. Just in the day-to-day general knowhow of your job, does the intranet facilitate that at all? Interviewee: “I mean, know but is it supposed to? Interviewer: “Can you think of a way it could? Interviewee: “No, not really. I never thought of it as something that’s supposed to help your day-to-day, just
something that is there for problems." Many supported this viewpoint, saying that the intranet itself did not contribute to the gradual individual improvement one has as they spend more time on the job. Some argued it had a tertiary effect on the process.

“I think it eliminates downtime which is potentially important,” they said, “Time spent trying to figure out your computer or email or phone is time not spent doing your job. I think the less time you spend on meaningless things like that.” Many employees shared similar thoughts to these, “I kind of see it like a divide. Like there’s doing your job and then there’s technology. Sometimes they overlap but breakdowns in technology aren’t part of doing your job, they’re just hindering your job. I think this system tries to eliminate those breakdowns and lets us focus on doing our jobs,” an employee said. When asked if they thought the system ever directly helped them do their job, they could not think of instances outside of technological-related installations or improvements.
Discussion

The elicited beliefs about KM systems, purposes and general knowledge needs summarized point to the importance of coherent KM strategies and efficacy.

The KM system within this organization primarily serves as a way for users to quickly find and resolve issues that can be resolved within the codified sphere. Common inquiries and issues that can be posited onto a viewable resource are organized and aesthetically optimized there to eliminate downtime. The organization pays almost no attention to tacit knowledge sharing, tacit knowledge management and tacit knowledge transfer. Designers indicated this may be an avenue in the future, but little consideration was shown towards it in the present. In reference to the three tenets of absorptive capacity laid out in the literature review, this organization would show a low absorptive capacity. The information highway between departments and employees exists only if employees themselves make a conscious effort to utilize it.

Findings in this study support how a passive approach to knowledge management can lead to disconnect between the employees and the full functionality of the KM system. Employees felt the existing system was a separate entity to their job—it did not exist to enhance their job performance but rather was solely a system designed to prevent roadblocks. While almost all who actually had use for the system rated it
highly, there was a noticeable lack of usage across all interviewed employees—most people could only recall using it once or twice in the four months it had been implemented. Employees indicated and designers confirmed that feedback for the system was positive when it was used. For what the system offered it performed markedly well.

A lack of proper information might contribute to some of these issues. Knowledge management is still a relatively new discipline, especially in small organizations and without empirical data supporting its benefit, organizations might be hesitant to direct resources towards its optimization and implementation. The designers interviewed indicated a lack of belief about the tangible benefits and viewed the passive transfer of information as opposed to the active transfer as “good enough.” Several indicated they believed that if information should be transferred it would, as job performance was motivation enough to seek out and distribute professional knowledge. To some extent, users supported this belief. However, information flow generally consisted of face-to-face meetings in offices or email exchanges—which employees indicated could be difficult because they required the presence and availability of other employees. For time-sensitive material, this potentially presented a hindrance for optimizing time management and sensitive material.

Several employees had never heard of tacit knowledge but alluded to it throughout their interviews. They agreed that there was a personal, iterative element to job performance that was accrued contextually and over time. They also agreed that
collaboration and consultation with peers in a similar environment helped enhance that and many times was their primary method of acquiring this information.

However, they also had no suggestion for how an explicit resource like an intranet or a KM system or even a company-wide directive could facilitate this. Users readily agreed that codified knowledge storage systems provided tangible benefits to those that needed them, but they also saw the time inefficiency and burden of exploration as serious drawbacks to such systems.

The literature review elicited the belief that KM systems, when facilitated, not only enhanced knowledge transfer throughout an organization but also enhanced the legitimacy of the KM discipline itself. In this organization, neither designer nor user gives much credence to KM as a discipline and thus many users consult the system little or not at all beyond the occasional technological concern. Currently, many employees believe the primary beneficiaries of the KM system would be employees in training or those relatively new to the company. While effective KM systems should certainly prove to be great resources to new employees, the system falls flat when the beneficiaries are limited to that sole population. Literature regularly points to coherent KM strategy as crucial to the optimization and transfer of knowledge within the organization, so when that coherency does not exist, information networks perform below par. Moreover, employees indicated that once oriented within the organization, the overwhelming majority of their knowledge concerns and opportunities were tacit. Codified, explicit knowledge sources exhibited a high level of diminishing returns and many resources were only
accessed when they contained needed forms or similar materials. Employees indicated that once they knew how to use a coded resource, they had no need to consult that article anymore. Once this scenario occurs across multiple resources—which generally does not take long—the value of the entire system is lost.

Employees indicated that explicit knowledge sources had value for reference, but hardly optimized or enhanced day-to-day performance.

**Further Research**

There is still much nebulosity surrounding best practices for tacit knowledge transfer and facilitation. In this study, employees indicated that tacit knowledge was the overwhelming majority of knowledge need inside an organization. The next step is to take salient conclusions from themes elicited in these interviews and develop coherent strategies towards addressing them. The issue of tacit knowledge management enhance has existed in the literature and repeated tries have been made towards addressing this issue. A suggestion might be to survey employees who repeatedly engage in collaborative tacit management transfer and discover the best strategies for optimizing this information flow. Perhaps an organizational highlighting of departmental experts could facilitate this information flow, or discovering other collaborative efforts to further enhance these exchanges. While conclusions might be relative to organizational positions and tones, a set of best practices should be summarily agreed upon and accepted. KM research began with the “80/20 model” and progressed to the “bridge the gap” model. Now, research must confront what this bridge currently looks like and how it does. New
technological tools enhance information flow all the time (which is why so many KM systems exist within IT departments), so research needs to pinpoint important themes instead of tools towards the continued improvement of this resource.

An intermediate step might be to better quantify the benefit of tacit knowledge optimization. While this is almost an oxymoron as tacit knowledge is unquantifiable, similar efficacy studies have been made to determine organizational benefits to leadership and culture—both of which are also unquantifiable. This research would ideally shift the focus of commoditized information to include—and centrally feature—tacit knowledge. This research would serve to not only allow for the continual implementation of KM systems throughout organizations worldwide, but also serve to compound the available research opportunities and user bases of KM systems. As directed and explicit KM ingratiates itself further into corporate culture, more salient themes and issues would arise and allow for continued discussion and review.

**Study Limitations**

This paper acknowledges several limitations that could harm the generalization ability and conclusions of this research. First, it utilized a relatively small sample size. While the author believes this was appropriate for qualitative interview research, it does not allow for complete generalization across all organizations with similar strategies. In addition, this organization did not incorporate a salient KM
strategy, while many others do. This could allow for differentiation between employee information need in one organization and the next.

In addition, while this study identified the existence of several beliefs and the employees’ importance of these beliefs, it did not and could not quantify potential benefit regarding these beliefs. While employees stated that tacit knowledge management facilitation could potentially be beneficial, they had little to no tangible or relevant ideas and beliefs of just how it would.

Further research should and could corroborate and underline some of these hypotheses, but as it stands this study would need affirmation of similar studies in different organization to truly have an ability to be generalized.
Conclusions

This study identified the typical beliefs and needs of employees in an organization that would traditionally be defined, in KM terms, as explicit-centric. Importantly, it examined how passive KM supplements their work when KM extensions within the organization are almost solely codified. Employees, regardless of department, showed the overwhelming need for tacit knowledge optimization. Codified systems of knowledge displayed extraordinarily high values of diminishing returns and employees continually referenced the fact that individual job improvement had almost no interaction with the existing codified stores of knowledge.

This paper believes that tacit knowledge management should be the centralized focus of knowledge management systems and research in the future. Technological improvement has continually facilitated the communicative capabilities of an organization while allowing users unprecedented access to codified knowledge—both within an organization and outside—so KM departmental focus needs to centralize itself on facilitating tacit knowledge transfer.

This study has also confirmed a disconnect exists between employee and organization when coherent KM strategies are not saliently developed and implemented at a departmental level. It should be noted that although this study
primarily focused on the dearth of useable models for tacit knowledge management optimization, it does not attempt to undermine nor damage the confirmed benefit of explicit knowledge management and knowledge resources. This research shows that issues with explicit knowledge management, while important, have mostly been reduced as technology and communicative abilities have increased. It is not a matter of less importance in terms of organizational benefit, but rather a matter of focus needed.
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