

Zen and the Art of Knowledge Management

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Zen and the Art of Knowledge Management¹

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Abstract

One of the most difficult challenges in knowledge management is turning the tacit knowledge of staff into explicit knowledge that can be shared with others. Developing concrete organisational strategies to deal with something as amorphous as tacit knowledge can best be thought of as grappling with the koan riddles of Zen Buddhism. The nature of the riddle demonstrates the inadequacy of traditional management thinking, while solving the riddle draws more on imagination than convention. In this session we will explore:

- The role of social capital in sharing intellectual capital
- How the 'informal organisation' encourages or prevents the sharing of tacit knowledge
- The role of imagination in knowledge management
- Zen and the art of knowledge management
- Methods for identifying, activating, and applying tacit knowledge
- Ways to ensure the reproduction of knowledge and organisational memory

Introduction

This paper begins with a confession: When we at *No Doubt Research* were thinking of how we could talk about the problems of capturing something as amorphous and diaphanous as tacit knowledge, we settled on the idea of comparing it to a Zen riddle, or koan. Once we arrived at the idea of 'Zen and the Art of Knowledge Management' we retired to a nearby café to congratulate ourselves on our perceptiveness. However, once we returned to the hard work, the actual writing of this paper, we quickly discovered that Stephen Denning (of *The Springboard* fame) had beaten us to the drop. On his website there is an interesting (but albeit brief) paper about *Storytelling and Zen*.

On reflection, however, it is clear that it is no coincidence that a number of us working in knowledge management have arrived at this comparison with Zen Buddhism in particular and with Eastern 'ways of knowing' in general³. This is because in the West kind of knowledge that we have historically privileged is that based on reason. The kind

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³ Indeed, had we known about Denning's use of the Zen example we would have run with our second choice, that of calling this paper 'The Tao of Knowledge Management' and talked about the same ideas using different examples.

of knowledge that tends to be explicit, and the kinds that comes with an audit trail of references to different kinds of evidence. In contrast, in the East, some cultures have celebrated the importance of the intuitive rather than the rational. Zen Buddhism, for instance, is famous for its riddles, or 'koans', that are deliberately designed to highlight the limits of reason.

Of course, the idea that I have to first tell you what a koan is (and why they are like that) before I can show you one is itself a very Western idea. Still, our culture and tradition is one that enjoys definitions. The Webster dictionary defines a koan as:

a paradox to be meditated upon that is used to train Zen Buddhist monks to abandon ultimate dependence on reason and force them into gaining sudden intuitive enlightenment.

In *The Three Pillars of Zen*, the Roshi Philip Kapleau defines a koan as:

a formulation, in baffling language, pointing to ultimate Truth. Koans cannot be solved by recourse to a logical reasoning but only awakening a deeper level of the mind beyond the discursive intellect.

Koans are thus about what some Zen Buddhists call 'mind murdering'. The riddles defy logic (which is the point) and attempt to subvert the rational intellect to provide the student with a new viewpoint. Perhaps the most famous of all Zen koans⁴ is the riddle:

What is the sound of one hand clapping?

While one of our favourites asks:

What was your original face before you were born?

Pause for a moment and try and engage with these questions. How would you answer them? If you are anything like the majority of people educated and acculturated in the West, your response will be to dismiss the questions as meaningless (or, at best, as amusing distractions). The Western tradition simply does not prepare us well for dealing with these kind of questions.

Not only does Zen Buddhism have ways of asking questions which challenge our Western ways of thinking, they also have ways of responding to questions that do the same. We're thinking here of the Zen concept 'mu'. This means 'half yes and half no', or 'neither yes or no'. This can be interpreted to mean 'the way you have asked the question makes assumptions about the answer that I don't share, so please unask the question (or ask it in another way)'. As an exercise in reframing, you would go a long way to find something more useful than the concept of Mu.

It is the argument of this paper that grappling with tacit knowledge is a lot like coming to grips with a Zen koan. When we work on 'making tacit knowledge explicit' we find our usual techniques let us down, leave things out, or seem to miss the point. As with the

⁴ The word Koan comes from the Chinese term kung-an, literally 'public notice', or 'public announcement'. There are reported to be some 1,700 Koans in all. The two major collections are the Pi-yen lu (the *Blue Cliff Records*) consisting of 100 Koans selected and commented on by Yüan-wu, in 1125, and the Wumenkuan, also known as the Mumonkan, a collection of 48, known as Wu-men. (<http://www.angelfire.com/electronic/bodhidharma/mu.html>)

Zen koan, what is really needed to come to terms with tacit knowledge is to suspend our usual expectations and to search for a new viewpoint.

Tacit Knowledge

Most often associated with the work of the philosopher Michael Polanyi, the notion of tacit knowledge demonstrates that we can know more than we can tell or explain to others. Indeed, that we know more than we are aware. Over the years they work in a job people develop 'huge repertoires of skills, information, and ways of working that they have internalized to the point of obviousness' (Stewart, 1999:72). For instance, John Seely Brown and Paul Duguid tell a story about a typesetter working on a Greek text at the Oxford University Press who noticed a mistake in the text. As the typesetter couldn't actually read Greek, his colleagues and then his supervisor dismissed his claim. But the typesetter insisted, and eventually an editor came down to the compositing room. She too dismissed the typesetter's claim, until she looked a little more closely and saw that indeed there was a mistake. When she asked him how he knew it was wrong, he said that he had been hand setting Greek texts for most of his professional life and he was sure that he had never picked out the two letters in that order before (2000:80).

The thing about tacit knowledge is that it deals with 'knowledge' that has become so thoroughly embedded that the holders no longer 'think' about what they're doing but simply 'do' it. In most business situations, especially in the professions, the bulk of an individual's valuable and useful knowledge is tacit rather than explicit. But by definition tacit knowledge is that which is unable to be communicated in words or symbols. This amorphous quality of tacit knowledge poses a number of philosophical and practical problems for conventional management practice.

Western philosophers and intellectuals have not been much help here. Thomas Carlyle, in his essay *On History* (1838) asked 'what is knowledge but recorded experience?'. Similarly, Ludwig Wittgenstein, ended his only book *Tractatus Logico-Philosophicus* (1961) with the assertion that 'Whereof one cannot speak, therefore one must be silent'. And yet the challenges for organisations coming to grips with tacit knowledge are precisely about how they (i) use the knowledge that they cannot record, and (ii) find ways to get staff to communicate about things that they can't speak about.

Capturing Knowledge and Passing it On

In knowledge management there is a common distinction drawn between knowledge 'stocks' and knowledge 'flows'. This distinction is as simple as the names suggest:

1. Knowledge **stocks** covers the explicit knowledge and structural capital that exists in an organisation. These stocks might reside in a central repository such as a database or corporate library; scattered throughout the organisation in various offices, filing cabinets, bookshelves, and so on.
2. In order to make knowledge useful (i.e., in order to ensure that the knowledge that exists anywhere in the organisation is made available everywhere it is needed), it is important to ensure whatever knowledge exists in the organisations 'flows' around it. This is the concept of knowledge **flows**.

The challenge provided by tacit knowledge is how we convert it into knowledge stocks. But the point at the heart of this paper is that **it is possible to get tacit knowledge 'flowing' around your organisation without first converting it into a knowledge**

‘stock’. In the courses we teach about knowledge management we have our students attempt to write a set of instructions about ‘how to ride a bicycle’. What they come up with are inevitably awful. And that, of course, is the point. What we are really trying to do with this exercise is show the course participants the limitations of explicit knowledge. In this regard, the exercise is our own kind of Zen koan.

Once we demonstrate the inadequacy of their instructions, we then get the participants to tell us how they learned to ride a bike (or how they taught their own children to ride one. Their answers commonly involve a mix of the following elements:

- They were instructed by someone who knew what they were doing
- There was some modeling what to do as well as instructing
- They were taken somewhere where it was safe to make mistakes
- They attempted to do what they were told and shown
- Mistakes were made
- More instruction and modeling followed
- After a number of trials, they were successful

In this example, what our course participants have done is demonstrate that it is possible to pass on tacit knowledge even though it is problematic to turn it into the kind of explicit knowledge that would fit with a knowledge repository. For organisations to be able to do this all they need to do is recreate the same kind of learning culture and environment that is present when people learn to ride a bike.

Getting Tacit Knowledge Flowing

So how do we create that kind of learning culture and environment within organisations? To do so we first need to understand how any organisation actually works. A most useful distinction here is that between the ‘formal’ and ‘informal’ model of the organisation. The ‘formal’ organisation is that described in organisational charts, made up of job titles and job descriptions. The shape of that chart tells us where knowledge and authority are supposed to reside in the organisation, and how they flow around it. The ‘informal’ organisation describes how things actually get done in any organisation. This is that set of improvisational practices that keep organisations functioning (and seen most clearly in the difference between what the formal job description says a staff member *should* be doing and what they *actually* do all day).

This distinction between the two ‘faces’ of an organisation is one of the oldest in the sociological literature. It is also a key one for successful knowledge management. A study carried out by the Center for Workforce Development in the United States, involving 1,000 employees, reported that up to 70% of all workplace learning is informal. This is the learning that is ‘unbudgeted, unplanned, and uncaptured by the organization... [it]... occurs in dozens of daily activities, including participating in meetings, interactions with customers, supervising or being supervised, mentoring others, communicating with peers, and training others on the job’ (Pfeffer and Sutton, 1999).

What the notion of the ‘informal organisation’ captures beautifully is the role that **social capital** plays in knowledge transfer. Social capital refers to the networks of trust and reciprocity that exist within an organisation, it describes groups of people who share values and behaviours, and have common understandings about what they are doing and why they are doing it. The heart of social capital is trust. Informal networks coalesce around groups of people who trust each other. Note that you don’t have to

like someone to trust them (and vis-à-vis). Think of a simple example, if you have a problem with something at work who do you first turn to for help? Why?

In the knowledge management literature we see social capital most obviously in the concept of **Communities of Practice**. These are tight-knit groups formed by people working together on the same or similar tasks (and a key way that knowledge is created and transferred in organisations). Thomas Stewart (1999:96) takes it a stage further and calls communities of practice 'the shop floor of human capital, the place where the stuff gets made'. This is because real-world learning occurs in groups of people with like-minded goals (i.e., learning is a social activity). And because communities of practice emerge spontaneously, they are beyond normal managerial control. He states:

Communities of practice are responsible only to themselves. No one owns them... they emerge of their own accord [where staff] collaborate directly, use one another for sounding boards, teach each other, strike out together to explore new subject matter... you cannot create communities like this by fiat, but they are easy to destroy. They are among the most important structures of any organization where thinking matters; but they are, almost inevitably, subversive of its formal structures and strictures' (Stewart, 1999:96).

Given that they play such a significant role in creating and transferring knowledge, the important question must be 'how can an organisation develop communities of practice?'. This is a trick question. The whole point of the foregoing discussion about the difference between the formal and informal 'face' of any organisation was to illustrate that you cannot engage with this informal side through conventional means. There is little point in developing a 'communities of practice strategy' that involves holding meetings, allocating tasks, enrolling users, and writing briefing papers. Many organisations are resistant to promoting informal networks because they can seem like avenues for staff to goof off. However, 'gossip in the workplace, often considered wasted time, is the way the company's knowledge network updates itself' (Davenport and Prusak, 1998:38). Formal networks go stale almost as soon as they are established, but informal networks, precisely because they are dynamic, never do. In other words, do not attempt to formalise your communities of practice (a surprisingly common response). Instead, give them the time and space they need to do what they do well. Stewart talks about how organisations need to 'fertilise the ground but keep away from the tending'. If you give the communities too many resources, this will increase the pressure on them for outputs and defeat the whole point. The best way to 'fertilise the ground' for communities of practice is to recognise the important role they play in the organisation, and then provide members the time and space they need to come together. These requirements should be minimal, perhaps an intranet and the use of a conference room from time-to-time, but should pay substantial rewards.

But I am sure there will be any number of different people talking about communities of practice at this conference, so let's focus here on other ways that tacit knowledge can be put 'in motion' and transferred between staff. It should be no surprise that the best way to do this is to create systems that enable (and allow) staff to talk and listen to each other. So how can we facilitate this sharing of knowledge?

(1) Identify Who Knows What, Where: Our experience is that before you can share knowledge more effectively you have to be clear about where the knowledge actually resides. We are big fans of creating knowledge 'maps' to record this information (and hence create a record of who and where the experts are rather than what the expertise

is). These maps are different from active directories because they are generated from the bottom-up by users. This involves talking to staff and asking them where they go when they have certain kinds of questions. This can be done through a staff survey, through a series of in-depth one-on-one interviews (better), or through a series of facilitated group workshops (better still). The key question to ask staff here is 'where do you go when you want to know about X?'. Group situations (such as workshops) work best here because they provide an opportunity to confirm the veracity of someone's expertise. In research circles, this is known as 'triangulation of data sources' but it simply means that if a number of people, independently, tell you that Michael in the store is the person to talk to about organising air freight shipments at short notice, then you can have some confidence that this is the case. There are a number of sophisticated tools that you can also use for mapping knowledge and knowledge flows. One that has got a lot of coverage in the international literature recently is Social Network Analysis. This approach constructs knowledge maps based on measuring the flow of tacit knowledge within an organisation (using such metrics as who helps others, who talks to whom, etc.)(Busch, 2001). Software tools such as 'Inflow' have been developed to help with this kind of analysis.

(2) Create Talk Spaces: These can be as simple as the areas around the water cooler or coffee pot, or as sophisticated as dedicated 'chill out' rooms. The point of creating such spaces is that they provide opportunities for staff to be able to talk with one another in an informal setting. Although much office 'gossip' is not about work, a great deal of what staff talk about is. The conversations staff have with one another are 'the way knowledge workers discover what they know, share it with their colleagues, and in the process create new knowledge for the organization' (Davenport & Prusak, 1998:90). What kind of space you create, and how you encourage staff to use it, has to fit with the broader existing workplace culture. Clear Communications, for instance, has 'chill zones' replete with comfortable sofas, TVs and DVD players, and furnishings chosen by the staff (Jayne, 2001b). By contrast, in Japan, some corporations have dedicated 'talk rooms' where staff are compelled to spend a portion of each day, usually talking to someone new. Those who approach knowledge management from an IT perspective are becoming increasingly excited by the opportunities provided by web logs (or 'blogs' as they are better known). 'Blogs' are informal personal websites that have dated entries, usually by a single author, often accompanied by links to other blogs that the site's editor visits on a regular basis. Think of a blog as one person's public diary or suggestion list. The appeal of blogs is that they are personal and unfiltered, giving them the ability to 'immediately put form to thought'. They are seen as a powerful way to share information because they highlight key ideas that users may never find on their own (to 'blog' or 'blogging' is also a verb). Much of the appeal of blogs is that they mimic storytelling (see below) in their informality and timeliness. Equally products such as IBM's 'Babble' and 'Loops' provide another way that users can share information across a network. These products, a mix of collaborative working platforms and instant messaging, allow users to interact online with information and people in what IBM describes as an 'intuitive, visual, and socially relevant fashion'. Babble and Loops use synchronous and asynchronous technologies to provide a more community-oriented workspace for organisations.

(3) Smart Office Layout: In some organisations, the need for 'talk zones' is obviated by the layout of the office. One organisation we work with discovered they didn't need more water coolers or sofas because they were a small team in an open-plan office, with a culture that encouraged mingling. The larger point is that a good office design can contribute to an effective learning environment. The first response many people have to a novel problem is to ask the person closest to them what they should do. Why not simply rearrange the seating to ensure staff sit closest to the people who are likely to help them most in the future?

(4) Dedicated Knowledge Sharing Events: One way that staff can get exposed to new ideas is through knowledge sharing events – such as a ‘knowledge fair’ or some kind of open forum. The term ‘knowledge fair’ sounds outrageous but really just means any opportunity for staff to meet and talk to other staff about their work. These can be semi-serious ‘trade shows’ or they can be as simple as a corporate picnic. It is about creating the opportunity for exchange between people who never get to meet during the course of their daily work. Remember, too, that less structure is always better for these events in terms of knowledge sharing. Remaining loosely structured allows participants to ‘pull’ the kind of knowledge they want, building their own itineraries to meet their own needs. Think about the structure of the average conference (such as this one) where the most useful contacts occur in the breaks between the formal presentations.

(5) Seek Cross-Functional Exposure: One of the most effective ways to share knowledge throughout your organisation is to get staff who wouldn’t normally talk to each other to start to. Many ideas grow better when transplanted into a novel setting, and an excellent way to test your own assumptions about a particular problem is to talk to someone else who has a different set of assumptions about the problem’s definition, components, and likely solution. Creating systems that encourage staff to talk and listen to each other is the key to knowledge management:

(6) Brainstorming: This is a common way that tacit knowledge is put into motion. The rules of brainstorming sessions explicitly suspend judgement and give participants permission to make suggestions on the basis of intuition and insight, and to convey their suggestions through diagrams, analogies, war stories etc. This is exactly the spirit of learning that knowledge management requires – the ability for staff to stretch their own thinking, to say seemingly stupid things, and to make mistakes.

(7) Create a Knowledge Sharing Award: It is an axiom that organisations ‘get what they reward’ so, therefore, one way to encourage staff to put their tacit knowledge in motion is to actively reward staff for doing so. Ultimately, such behaviours should form part of the key performance indicators (KPIs) of all staff and contribute to promotion and rewards. However, in the immediate term, it is much easier to simply append a ‘knowledge sharing award’ onto the existing remuneration system. Different organisations will need to structure these in different ways, to meet the needs of their own cultures, but one model might be to have staff choose the insight they found most useful every month, and reward the person who provided it with a weekend away or dinner at a fine local restaurant. Create a prize that staff will want to strive for (like a weekend in a resort town) and make a big deal about the awards – thus, creating the opportunity to use the awards to promote, and educate staff about, knowledge management.

(8) A Change in Culture: Ultimately the goal is to drive knowledge sharing to the heart of the organisation. This relies on the staff being willing to share their knowledge and experiences (and to be open to learn from the knowledge and experience of others). And because genuine sharing is always voluntary, the challenge is to create a culture where people are eager to share their knowledge. Yet make no mistake, even rudimentary knowledge management efforts require a requisite shift in culture. To take one obvious example, the creation of a ‘knowledge map’ will be of no use in an organisation that is resistant to knowledge sharing. Knowing that Helen in marketing is an expert in dealing with e-commerce in Asia will be no use to anyone if she is not motivated to share her experiences with others. Knowledge management is therefore also about change management. This is a complex topic all of its own, and Trevor

Williamson's workshop tomorrow will address some of the key elements in dealing with this kind of change.

The last thing to note about getting knowledge to flow more freely around the organisation comes from Peter Busch's (2001) research into tacit knowledge using Social Network Analysis. This research is clear that the use of tacit knowledge grows with the age of people and decreases with the size of an organisation.

Making Tacit Knowledge 'Sticky'

Although we can't record tacit knowledge, there are a number of ways to make the contents of tacit knowledge 'sticky' (Gladwell, 2000). Perhaps the most powerful of these is the use of **storytelling**. Storytelling has been described as 'possibly the most effective way to convey knowledge and understanding' (www.elearnspace.org). The reason that stories are so effective is that they are good at presenting things sequentially (this happened, and then that happened) and good at identifying causes (this happened because of that). But more than this, stories draw on people's emotions as well as their intellect, they engage and stimulate readers. To demonstrate how good stories are at doing this, reflect on what you know about Russian history between Napoleon's great retreat from Moscow and the Russian revolution. Close your eyes and picture what you think life in Russia was like in this period, and then ask yourself how you know those things. Chances are that it will be from reading the likes of Tolstoy, Turgenev, Dostoyevsky, and Pasternak. Given that stories are such a powerful way of capturing ideas, it makes sense that organisations should start collecting their own stories. These could be disseminated through a regular newsletter, and used for staff training and induction. Creating storytelling forums and storytelling magazines is an obvious way that organisations can help tacit knowledge become more 'sticky'. The great thing about stories is that – although you can record them in your knowledge repository – their real value lies in their telling and retelling. This means they provide a way that the 'old-timers' can pass on what they know to the newcomers (Brown and Duguid, 2000:106-7).

As well as storytelling, other ways that tacit knowledge can be assisted to become more sticky all involve becoming more creative with the way it is communicated. An approach that is becoming increasingly popular in social research (where the challenge is to understand notions of 'spirit of place' and 'belonging') is to use **visual methodologies**. This includes the use of photographs, paintings, videos and other images to capture the things that participants cannot put into words. As the famous dancer Isadore Duncan once said about her dancing:

If I could tell you what it meant, there would be no point in dancing it.

With these notions of story telling, visual methodologies, and dance, and our rallying cry for organisations to become far more creative in the ways that they deal with tacit knowledge, this paper has arrived back at the spirit of the Zen koan. As with coming to grips with a koan riddle, coming to grips with tacit knowledge is all about seeing the problem in a new light. This 'new light' reveals that sharing tacit knowledge successfully is all about tapping into the creative, intuitive, and emotional rather than the rational. In the words of ee cummings:

While you and i have lips and voices which
are for kissing and to sing with
who cares if some one-eyed son of a bitch
invents an instrument to measure Spring with?

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Other Web Sites and On-Line Sources

'Babble' www.research.ibm.com/SocialComputing/babble.html

'Blogs' www.elearnspace.org/Blogs.htm

'Loops' 'Babble' www.research.ibm.com/SocialComputing/Loops.html

'Social Network Analysis' <http://semanticstudios/publications/semantics/000006.php>

'Storytelling' www.elearnspace.org/storytelling.htm

'Views of knowledge are human views'
www.research.ibm.com/journals/sj/404/dueck.html

Appendix: The Symbol Used In This Presentation:



“Courage to Change: To Seek Unknown Potential”: It takes great courage and inner strength to change from what is know and comfortable to something which is new and fresh. That which is unknown often contains our greatest potential. To seek our unknown potential by risking change is the path of true greatness. Such action brings much favour and untold blessing.