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The Future is Wild: Managing Knowledge of the Future

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Abstract

The future and knowledge are both strange creatures. We act as if the future already exists, and as if knowledge is a thing we can hold in our hands. Foresight (perception gained by looking into the future) is a kind of information rather than knowledge, however using both foresight tools and the results of foresight work takes knowledge. After a discussion of what foresight is, the tools used to create and interpret it, and barriers to its implementation, parallels are drawn between knowledge management and foresight. Knowledge management theory and strategies are used to discuss the implementation of foresight methodologies in organisations.

Keywords

Foresight, futures, knowledge management, foresight methodologies, barriers to use

Introduction

Just as the future is treated as if it already exists, knowledge is frequently treated as if it were a 'thing'. We use our knowledge of the past – our experience, and the experience of others, extrapolations and imaginations – to leap into an image of what we think the future may be. Organisations need designs of possible futures in order to plan for various outcomes. In order to achieve this they need specific tools to help them explore the possible, probable and preferred futures. They also need to understand how to incorporate the resultant information into the organisation in a useful and effective manner. Having discovered what the future may hold, and what that means for the organisation, they need to be able to utilise this information – the right people need to know what it is, what it means for them, and how they can use it. Methods of foresight and knowledge management work hand in hand to ensure that when the organisation produces information relating to possible futures, so the best use can be made of it.

What is Foresight?

Foresight is defined in five different ways by the Macquarie Dictionary. The most pertinent for the purposes of this paper are:

1. care or provision for the future; provident care
3. the act of looking forward
4. perception gained by or as by looking forward; prospect; a view into the future.

Richard Slaughter, a leading Australian foresight specialist, describes foresight as '… a primary part of the rich world of understanding and perception made possible by the human brain/mind system. It is a defining condition of human life that actions and decisions – understanding in general – are founded on what has gone before *and* on what is expected or intended' (Slaughter 1999, p. 151). Humanity builds its foundations on the capacity to plan, to formulate goals and strategies, to anticipate possible consequences of future actions and be able to plan for these. Foresight is the capability to reduce risk and avoid danger by understanding and interpreting the melange of memory, identity, foresight and purpose (ie, experience). In an organisational sense (as well as individually), this can be expanded to include the ability to recognise opportunity and anticipate how to take advantage of likely consequences so that possible and probable futures can be directed into preferred futures. In

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addition, foresight is completely scaleable. It can be used to examine my future, an organisation's future, an industry's future, a country's future, humanity's future or the global future.

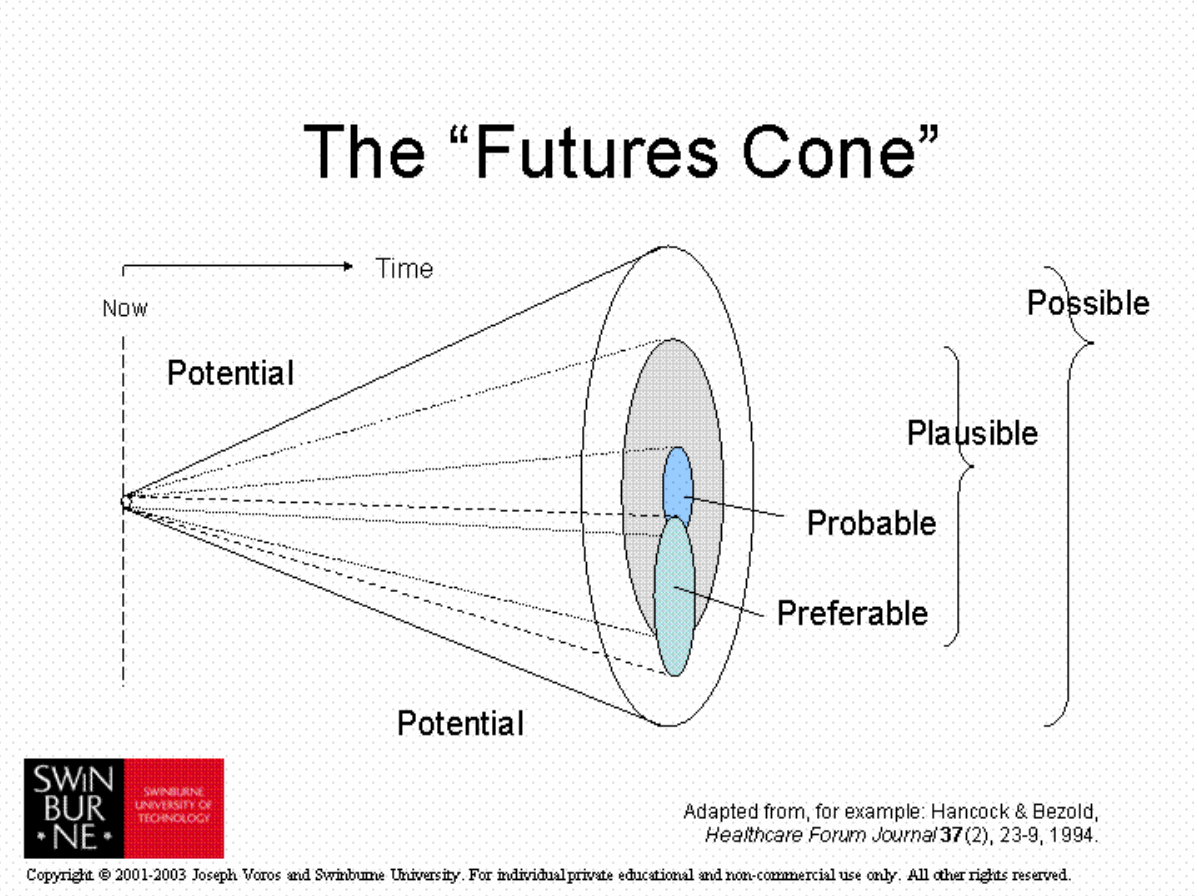
The three 'laws' and alternative futures

Foresight is predicated on three suppositions. These are that the future is NOT predetermined, that the future is NOT predictable, and that future outcomes CAN be influenced by our choices in the present (Voros, 2003). If the future was predetermined then it would not matter whether we explored its possibilities or not as even absolute knowledge of the future would not enable change to occur. In addition, the future is not predictable, that is, the number of variables involved, and the complexity of their interactions mean that we can only interpret coherence in hindsight (see also: Snowden, 2002, p.105-6). Finally, because the future has not yet happened, we are able to make decisions and choices which will affect what the future actually becomes. My choice to study librarianship rather than, say, economics affects my whole future, from earning capacity to identity, who my friends and family are, where I live and possibly even what I do in my spare time. An organisation's choice to implement a specific technological KM solution without looking at the cultural issues affects not only the likely success (or otherwise) of the project, but also how the organisation views KM, technology, new initiatives, the people involved in the effort, and affects the future of all of these aspects in ways that may have little or no apparent link to the initial effort. Even my choice (along with many others' choices) whether to pack my lunch or buy, walk to work or drive, buy an item or borrow from a friend has a cumulative effect on the future of thousands of others who are involved in manufacturing, retail, natural resources, ecology, health, primary industry, and so on.

In addition to this, because the future is not fixed, is unpredictable, and can be influenced, we can talk about classes of alternative futures. As displayed in the image below, there is the **potential** future – all possible futures, imagined and unimaginable. We can describe those we can imagine as one (or more) of the following:

- **Possible future** – what might happen
- **Plausible future** – what could happen
- **Probable future** – what's likely to happen, and
- **Preferable future** – what we want to happen

Foresight works with possible and probable futures to design images of preferable futures.



The tools of foresight: a brief overview of methodologies

Slaughter (1999) describes several methodologies used in foresight exercises:

Input methods:

These are perhaps the most well known of the foresight methods, and the most well used in organisations. They are ways of gathering relevant information for the organisation for any number of planning type processes. Methods can be quick and simple, such as environmental scanning, or constructing near future contexts, to the more complex Delphi technique. In each case the success or failure of the technique depends on the rigour of the investigation. Scope and question design must be carefully and skilfully undertaken, or biases in the basic design may subvert the outputs beyond usefulness. Even the Delphi technique, which uses experts in the field being examined, may suffer from this problem. In addition, Delphi effectively excludes 'outriders' – suppositions on the extreme edges of the range – and aims for a consensus which may be too conservative to be useful.

Analytic methods:

These methods have become more popular in recent years in organisations. In and of themselves, they tend not to create so much an image of the future as collate and organise the information about the present that is needed to go to the next stage. For example, cross impact analysis identifies a series of factors influential in an environment, and then examines the interrelationships between them. It is an excellent base for other forecasting methods, such as scenario building and futurescan. Trend analysis has produced a number of popular management books in recent years, and assumes that the past is a good predictor of the future, at least in particular circumstances. Backcasting, almost the opposite of the last two processes,

is where an image of the desired future is created, and then working backwards from the image, the steps, conditions and relationships necessary to create such a future are identified.

Paradigmatic methods:

Although relatively new to the West, paradigmatic methods have an emphasis on creating and examining holistic images of problems, issues, and the future. These methods include Causal Layered Analysis (CLA), critical futures studies and systems thinking. Because these are less well known, I will go into a little more detail with CLA and systems thinking.

Causal Layered Analysis (CLA):

CLA is perhaps one of the widest in scope and possible use of all foresight tools. The method is 'based on the assumption that the way in which one frames a problem changes the policy solution and the actors responsible for creating transformation' (Inayatullah, 1998, p.6). A second assumption follows 'that there are different levels of reality and ways of knowing' (Gidley, 2003, p.4). CLA therefore, aims to move beyond the conventional first layer – litany – to deeper levels of understanding so that new meaning and solutions may be uncovered and actioned. There are four layers to be examined:

- Litany: This is considered by Slaughter (1999, p.293) as the conventional method of examining issues and Gidley (2003, p.4) as the 'official public description'. It usually involves simple empirical descriptions as described by the media or for political purposes. The descriptions may include trends, events, data, and problems, but they are disconnected from each other, provide little understanding of the issue, and are frequently economic rationalist in nature. They provoke feelings of helplessness and apathy and encourage projection onto institutions rather than feeding the ability to help solve the problem.
- Social Causes: This layer considers the social, economic, historical, political and regulatory regimes. Quantitative data and policy are interpreted and then used to describe and explain both the issue and the lack of progress on its resolution. This level is frequently used by policy groups, and often appears as 'in depth' feature or editorial items in newspapers. Sometimes precipitating action(s) from history, culture, etc, are analysed in order to provide a technical explanation. 'This data is often questioned, however, the language of questioning does not contest the paradigm in which the issue is framed. It remains obedient to it' (Inayatullah, 2002, p.8).
- Critical discourse: The third layer involves examining the often unconscious structure or basis (as well as its supporting worldview) that underlies the theories and policies developed in the Social Causes layer. Slaughter describes these as 'frames of meaning … disciplinary paradigms, not only on what is thought, but also on what can be thought' (Slaughter, 1999, p.293). Discerning the deeper assumptions is a necessary step to find the deeper structures – cultural, social, even linguistic that are common to all holding this worldview so that the next step of revisioning the problem can be accomplished. The issue cannot be lifted out of its cradle and viewed in new light if all of the old understandings about it are still in place.
- Myth and Metaphor: Here at the fourth level are the collective archetypes, the unconscious dimensions of the problem being examined, the deep stories and the paradoxes. This level is particularly powerful because it is usually invisible, and 'in a sense it is its very invisibility that gives it such power' (Gidley 2003, p.9). This level leaves the head and cold intellect behind and examines the emotional, instinctive aspects of the issue. Through the use of the mythical, visual images can be evoked that redefine understanding of base elements of the issue – what causes hopelessness in

people? Why is the world this way? The aim is for the questioning itself to be questioned, and to do this, other frames of reference, such as myth and metaphor must be engaged.

CLA can be used in a variety of settings, but is probably most often used as a part of workshops. The process benefits from a variety of people being involved who are either of different cultures and/or use different problem-solving methods. Once completed, the output can be used to inform scenarios that have richness of depth as well as the more usual breadth. Further benefits include:

- making explicit and understandable different ways of knowing among participants;
- making explicit conflicting as well as harmonious positions on the issue being discussed;
- encouraging people to be engaged who might not usually be (eg those who are more belief than logic driven, such as Myers-Briggs Sensates; those who think of people before process, such as Myers-Briggs Feeling);
- moving discussion of the issue from a superficial level to deeper ways of knowing;
- it can lead to policy actions that address more than the first two layers, and so have a greater chance of promoting preferred outcomes.

The drawbacks to Causal Layered Analysis relate more to its newness in the field and the elements that provide its strengths. It is difficult to use well as a novice, and people practiced in its use can be hard to find. Depending on the nature of the topic and design of the workshop, it can be time-consuming to do well, and it may be difficult to create the most useful mix of participants. In addition, for maximum distribution and understanding, the outcomes may need to be embedded into scenarios, a further process adding more time overall. Also if you need to go through all four layers, you may lose your participants or focus – time consuming.

Systems thinking:

In some respects systems thinking is not a futures method at all, but rather a way to understand the connectedness of all things. Slaughter (1999, p.294) states that it '… provides tools, understandings and concepts that allow practitioners to be systematic in the way they go about their work'. Bawden (2000, p. 1) argues 'If we want to change the way we are in the world – change the way we treat it and each other in it – we have first to change the way we look at it'. It is with this base that systems thinking has such strength for futures work. The overarching system is the universe, everything else is just subsystems within it. Even the hugely complex Earth is simply a subsystem. If an individual can view the world in this way, then comprehension of the complexities, though imperfectly understood, begins to provide a framework for interpreting both what is happening now, and how that may change in the future.

Systems thinking also encourages the examination of consequences. For example, when examining the current prevailing techno-centric approach to problem solving, systems thinking would involve tracing both the intentional and unintentional inputs used and outputs created. It might also involve examining continuous and especially discontinuous change that has happened in other fields, and using these examinations to see if correlations can be drawn between the two situations. This would be achieved by placing the issue being examined in its larger system and investigating the interactions. Systems thinking can look at only one or two layers, or it can be expanded to consider as many as required. Following system outputs and their effects may well lead into the future, but only if the process is pushed in that direction.

The effectiveness of the method is heavily reliant on preparation which relates to thinking about the future, and breadth of knowledge about the current situation.

Iterative and Exploratory methods:

These methods use previously gathered information to produce a substantive definition or exploration of possible futures, including strategies, states and consequences of particular actions. The various methods include scenarios, visioning and futurescan. Scenarios are 'stories' created based on a series of 'what if' type questions. Ideally, the scenarios should represent the outlier possibilities, so if all the reasonably likely possibilities were seen to make up a cloud, the scenarios might define the edges at specific points that are particularly pertinent or significant in some way to the organisation creating the scenarios. Visioning is usually run as a workshop with the aim of creating the image of one or more preferred futures in order to provide a goal or direction to work towards. Bezold (2000, p.1) describes visions as 'futures for the heart' as opposed to scenarios and forecasts which are 'futures for the head'. By this he means that visioning is designed to provide a compelling and inspiring image or statement that challenges people, raises their aspirations, and strengthens their desire to bring about the vision. Futurescan uses a mix of environmental scanning, matrixing and scenario creation to provide three contrasting futures, each with a number of strategic options. It is usually created in a workshop, and can be carried out more quickly than full scale scenario building, however its results will be more ambiguous because of this.

In addition, worldviews that encourage thinking outside the box, such as Wilber's (eg 2000, p.70) four quadrants model are extremely useful tools to re-examine current thinking and push foresight work into areas that might otherwise be discounted or ignored. Wilber's four quadrants cover both the inner and outer world, and the individual and communal world. These parallel processes, intimately linked with each other - in Slaughter's words - describe a system where the individual and society are entwined with the exterior and interior worlds as experienced by both individuals and societies. Wilber matches physiological and evolutionary changes with cultural and psychological changes, and he traces a path from more 'primitive' states of being, experience and understanding to more 'complex' states. The fact that he has mapped this along continuums makes this an ideal (if complex) tool to understand multiple systems in a nested manner.

How do organisations use (and integrate) futures work?

So what is the purpose of actually spending organisational resources on futures based work? Why do some organisations do it (and others don't)? As Peter Moll (2000) so aptly phrased it, organisations, just like individuals 'thirst for certainty' (Moll 2000, p.1). Of course, this is something that organisations just can't have any more that an individual can. But what they can have is a broad, clear understanding of where their industry may be in, say, ten years – what will have changed, what directions may be taken. Futures work can be used to increase the agility of an organisation, it can indicate the direction needed for increased capacity building, and it can be used to encourage and empower people to be involved in moving toward the future. Many of the futures methodologies encourage people to share ideas and reasoning, and this in turn can lead to increased levels of trust and cooperation within the organisation.

Hamel and Prahalad (1996, p.24) argue that 'competition for the future is competition to create and dominate emerging opportunities – to stake out new competitive space… the goal is … to develop an independent point of view about tomorrow's opportunities and how to

exploit them'. These authors outline four requirements organisations need to fulfil to get to the future before their competitors:

- understanding of how competition for the future is different
- processes for finding and gaining insight into tomorrow's opportunities
- ability to energise the organisation over the long term to work towards the future
- capacity to outrun competitors without taking undue risks.

These points show the true nature of interconnectedness of essentially all processes within an organisation. The first three requirements will use various futures information gathering and exploratory methods – competitor and competitive intelligence, environmental scanning, CLA, scenario planning, and visioning among others. Financial and risk management will be important elements of at least the competitive intelligence and environmental scanning, as well as used outright in the final requirement. Managing the knowledge created out of these processes – ensuring the right people have the right information at the right time – flows through all four.

Despite this, futures is usually seen as something completely separate from all other work undertaken by organisations, including, strangely enough, planning. Large organisation, such as the Australian Defence Force may run a specific unit dedicated to investigating the future, often using a minimum number of methods. Other organisations either engage in futures work sporadically, usually with internal novices or external specialists, or do without completely. While the output from futures work may be incorporated into the planning process, futures investigations are rarely fully incorporated into the organisation.

Ideally, integration of the futures output back into the organisation is a simple and seamless process. If the organisation has a clear understanding of how it wants to use this information, then the outputs should be easily incorporated. For example, even if a specific unit is responsible for creating futures outputs – visions, scenarios, etc, it is unlikely to work in isolation. Both specialists and generalists will be involved in processes such as workshops in order to create the most realistic output. The outputs (in whatever form they take) will then be used to plan and guide decisions regarding organisational capabilities, logistics, resources and agility. Organisations want to be prepared for both the good and the bad. They want to be able to take advantage of arising situations before others are able to, and they want to stem or ameliorate issues before they cause the organisation harm. What, otherwise, is the point in looking ahead?

Barriers to consistent approach and use in organisations

If foresight is so good, why doesn't every organisation have a foresight unit *de rigour*? Foresight as a process may be stymied before it begins, or anywhere through the process of establishing foresight as a function in an organisation. Attitudes and beliefs that may oppose the introduction of foresight include:

- **Future discounting**: the future has not yet happened, so it's not important. We are safe to continue as we are because 'the future' is an amorphous mass that is too far away to be worth worrying about. The future will take care of itself.
- **Empiricist fallacy**: the future cannot be empirically measured in any way and there are no future facts, so the only useful knowledge resides in the past and the present. Future uncertainty means that there is no value in thinking about the future, so we should be concerned with what we can know directly and ignore what we cannot know directly.

- **Disempowerment**: People feel that they have neither the opportunity nor power to help solve major problems, so avoidance or distraction is safer and more comfortable than engagement.
- **Time and space perspectives are fixed**: the belief that humans are naturally only interested in the short term, and therefore it is unrealistic to think that people will ever be prepared or interested in looking more than a few years ahead.
- **Fear of the product of foresight**: There is no way to tell in advance if the outputs from foresight activities are accurate, well timed, unbiased, or just the opposite. Thus, the practical difficulties in basing decisions on this provisional information are at best dangerous, and at worst reckless.
- **Costs**: It's just too expensive, and a waste of money when so many other concrete, viable, and obviously necessary items/projects/areas need to be supported. Leave the idle speculation to the academics (or opposition or big think tanks or …)!

Once begun, foresight, like every initiative in an organisation, will have both pushers – people and processes who support implementing the change – and limiters – people and processes who work against the change (Senge, et al 1999). Pushers and limiters are at work through each stage – initiating a new idea, sustaining transformation, and when evaluating/redesigning the new initiative.

The limiters that may occur at commencement can include failing to sell the relevance of the change to the organisation, time constraints, lack of competent help to the people who need it most (eg coaching), and management failing to match actions and words. If these challenges are not addressed quickly – within the first few months, the whole process will founder. And while it is easy enough to set up a futures unit, it will remain completely isolated (and therefore, useless), from the rest of the organisation unless these issues are overcome. There needs to be a clear argument for resources being put into this particular enterprise, rather than competing options. Linkages between the futures area and the rest of the organisation need to be overtly drawn and carefully maintained. In addition, staff working in the new area need to be properly supported, both to develop (or maintain) their skills, and in providing output to be integrated into the rest of the organisation. All of these aspects contribute to the perception that this undertaking is valuable to the organisation. If, however, management's words and actions vary from each other, the lack of congruence will undermine the overall effect. For example, if key people allow insufficient time for their involvement as required for the proper running of futures methods, not only will a poor product be created, but a clear message will be sent to the organisation that foresight is not important, despite whatever resources have been put into the process thus far. In each case, the message the organisation receives from the implementers is that either the change is not really important, or that it is not really wanted.

Once the initial stages are passed, the organisation must work to sustain the transformation. This stage is characterised by the reliability of recurring results, that is, the processes and procedures are in place to most often create output directed where it's wanted, and containing the sort of information needed to base decisions upon. Limiters at this stage include fear or anxiety created by the process, inability to maintain belief in the process, and not undertaking assessment of the process and outcomes. Fear and anxiety is most likely to be triggered in staff who perceive that their worth to the organisation is less because of the new futures work. This may be, for example, because their own work has changed as a result of the new foresight work occurring in the organisation. Perhaps staff do not trust decisions based on futures output because they do not fully understand the philosophy or reasoning behind how

the end was reached. Individuals previously in a gatekeeper role may also be fearful and anxious because of the loss of control and power over networks they once controlled. This is especially likely where futures methods requiring the participation of a wide variety of staff or recognised experts are used.

Fear and anxiety may lead to what Senge (1999) refers to as true believers and nonbelievers – groups forming within the organisation who can fanatically defend their point of view while ignoring arguments from the other side. The futures group needs to walk a fine line where they remain attuned to outlier ideas without risking the organisation's core values. It must be able to promote new ideas, even instigate change - without becoming a competitor to other areas of the organisation. The futures group must also clearly recognise that 'it is incorrect to assume that *information* in itself will cause managers to act or react in a consistent, predictable way … [and that in addition] … context gives meaning to the information' (Christensen et. al., 2004, p.xxvii). The way information is presented to the rest of the organisation is just as important as what that information is.

Another limiter is the issue of assessment or measurement of the output of the futures area. Usually, there will be a gap between how results are measured in the rest of the organisation, and how results can be, or should be measured from the futures group. The futures group needs to obtain clear statements from management on what management expects the outputs and outcomes to be. If necessary, negotiated changes need to be made early, rather than later. What is being measured needs to be a reasonable and reliable reflection of the group's actual work, rather than something artificially forced or created to match the rest of the organisation.

Finally, there comes a point when a redesign or redirection of the work is necessary. At this point new limiters may become apparent, including governance and diffusion issues, and issues around re-evaluation of the strategy and purpose of the group. A futures unit generally only exists because the parent organisation perceives that it needs the unit to perform some particular work. While the unit needs to maintain some autonomy in order to perform its work, it also needs to either comply with the organisation's governance arrangements, or to create its own, complementary governance that is acceptable to the organisation. In parallel with this, the unit needs to become an intricate part of the organisation – acceptance of its purpose and practices needs to be diffused throughout the organisation so that its output is actually used by the organisation in larger planning, logistics, resilience and change practices. Finally, the purpose of the unit, as well as its strategies need to be reviewed at regular intervals to ensure that the unit continues to provide value to the organisation in the most effective and efficient manner.

Linkages with Knowledge Management

Knowledge is a bit like light - paradoxical. Stacy (2001, quoted in Snowden 2002, p. 101) argues that 'Knowledge is not a "thing", or a system, but an ephemeral, active process of relating … Knowledge itself cannot be stored, nor can intellectual capital be measured, and certainly neither of them can be managed'. Despite this, a lot of people spend a lot of time trying to do exactly that. Knowledge management aims to enable organisations to get the most out of all of their 'assets' , whether they are tangible or intangible. It looks for methods to reduce unnecessary redundancy and repetition, and to ensure that people can access the information they need quickly when they need it. It involves understanding how people interact with the world around them, how they search for information, and how they behave in particular work situations – situations which will vary with every workplace. Technology may be an enabler, but it is not the solution. Snowden (2002, p. 102) argues for managing

knowledge as a flow, rather than a thing, and lists three heuristics he believes necessary to do so:

- knowledge can only be volunteered; it cannot be conscripted
- we can always know more than we can tell, and we will always tell more than we can write down
- we only know what we know when we need to know it

How knowledge management works will depend not only on the problem that needs to be solved, but also on the type of organisation that is implementing the solution. KM solutions tend not to be transferable between organisations, even for similar problems, because the organisational culture dictates what solution is appropriate, and how a successful implementation will occur. If, for example, an organisation's culture states that 'knowledge is power', no knowledge sharing strategy (technical or otherwise) will work unless a significant amount of change management around the organisation's culture occurs first.

'People in organisations are continuously trying to understand what is happening around them … current events are compared with past experience in order to construct meaning' (Choo, 1998, p.5). Knowledge management endeavours to more effectively derive meaning from the business environment than its relatives: information and records management. In the more recent versions of KM, sense-making through various methods, including narrative, has become a central theme. Many of the methodologies used in futures work are in sympathy with the sense-making aspects of knowledge management. This is especially true when considering the issues of ambiguity and clarity, and diversity and consensus that occur in both fields.

Ambiguity permeates many aspects of organisations, and one of the primary aims of any organisation is to reduce or remove as much ambiguity as possible. Ambiguity is caused by a confusion of multiple plausible meanings (Choo 1998, p.246), and its effect is to obscure which of the plausible meanings is the most accurate or useful for the organisation. It interacts with people's beliefs and expectations in an internal sense-making process that does not always lead to better outcomes but will always be undertaken so that the world makes sense. Organisations actually need some ambiguity as a space in which to experiment and improvise. However, knowledge management and foresight are both useful sense-making tools to investigate ambiguity and help understand what is the meaning of 'now', and which of the possible futures are probable, and which are preferred. The aim of each is to increase the clarity of information in order for people to be able to construct meaning about what they do and why they do it. Ambiguity is the place where foresight works best because it is where anything can be investigated. It is also the place where knowledge management attempts to ensure serendipity can work. Ambiguity also encourages a flexible knowledge architecture which, together with knowledge redundancies, contributes towards an organisation's ability to deal effectively with crisis (Desouza, 2005, p.29).

Diversity and consensus are co-dependent in the construction of shared understanding in organisations. Myths, symbols, stories and rituals are all used to construct a framework of shared meanings. Each person has their own interpretation of the meaning of information based upon personal experience, history, culture, and so on (diversity), however they use the shared understandings to build consensus and make possible coordinated action. Two people, sharing a common experience, will interpret aspects of it in diverse ways based on their personal histories. However they will be able to understand the sense the other has made of the experience because of their shared framework of meaning. This is just as true if we are

discussing the development of visions, for example, as if we are looking at knowledge sharing across an organisation. In-depth futures tools, such as causal layered analysis and systems thinking are even more dependant on this effect to enable people to not only share ideas, but to understand diverse points of view and understanding.

Much of an organisation's knowledge is tacit – in people's heads. It is difficult to codify, or even to verbalise. Foresight is one of the more difficult bodies of knowledge to spread throughout the organisation. This is partly because of the above mentioned limiters, but also because it is complex and people must be prepared to take time to understand the many nuances implicit in doing it well. Foresight is not the only area with this problem, however many other expert areas do not need to be widely understood to work in the organisation. While they can be isolated to a particular segment of the organisation, foresight needs to be widely disseminated, both to gain maximum input into the creation process, and to gain wide acceptance and support of whichever outputs are acted upon.

Conclusion

'No amount of sophistication is going to allay the fact that all your knowledge is about the past and all your decisions are about the future' (Wilson, n.d.) Knowledge management and foresight rely on many similar principles to share understanding and gain acceptance within organisations. These include: the effect of organisational culture, the principles of change implementation, and the types of pushers and limiters they must effectively work with. The two tools aim for different outcomes. Foresight endeavours to prepare the organisation for what the future might hold, even directing the organisation to work towards a preferred future. KM tries to implement practices that store, retrieve and use knowledge already in the organisation to the best possible effect. These outcomes often sit on a continuum, rather than being diametrically opposed to each other. They ultimately share many similarities in their uses for organisations, their purposes in sense-making, the issues around embedding them into the organisation, and people's perceptions of their usefulness. Knowledge management and foresight both aim to deliver a greater result than the sum of their parts. Although both have only been lightly explored here, knowledge management has already mapped many of the aspects necessary in organisations to embed new processes. The practices of foresight should take advantage of these processes to more effectively embed and share an understanding what the organisation wants to achieve.

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