

Story circles and heuristic based interventions

Part Three of Basics of Organic Knowledge Management



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Story circles and heuristic based interventions

Part Three of Basics of Organic Knowledge Management

David Snowden
Founder
The Cynefin Centre
www.cynefin.net

In this final article of the series, Dave Snowden completes the catalogue of methods for eliciting anecdotal material from which knowledge assets can be identified using the common sense language of the ASHEN model. He then establishes three heuristics or rules of thumb that can be used to guide the design of knowledge interventions once the knowledge audit is complete. The heuristics are designed to ensure that the organisation recognises the importance of privacy and engenders trust by recognising that the organisation is not a machine but a complex and interdependent network of communities whose intellectual capital cannot be discovered or managed using the traditional techniques of consultancy.

“Art is a human activity, consisting in this, that one man consciously by means of certain external signs, hands on to others feelings he has lived through, and that other people are infected by these feelings, and also experience them”

Tolstoy *What is Art*

The first article in this series of three established a common sense linguistic model, ASHEN to identify what an organisation knows. Most valuable knowledge is known *when it is needed to be known*; it is contextual and triggered by need. Human beings do not process data in the same manner as machines, despite far too many years of attempting to impose the *mechanistic* information models of computer science onto *organic* human decision-making. Neither is human decision-making the result of some utilitarian calculation of individual benefit; in knowledge management practice we have discovered that social obligation is a more powerful motivator of knowledge creation and exchange. The second article explored the dangers of traditional questionnaire and structured interview techniques in the early stages of a knowledge audit, opposing them with more effective techniques derived from Anthropology which reduces the possibility of influencing the object of the study.

This type of work results in the collection of anecdotes from which it is possible to extract evidence of knowledge use through the identification of Knowledge Disclosure Points (KDPs) in the form of decisions, judgements, problem resolution, learning points and the like. Anthropological Observation techniques are appropriate where the natural cycle of knowledge use can be observed over weeks rather than months. This final article will look at techniques for anecdotal elicitation that allow us reflect knowledge use over longer periods and identify organising principles, or heuristics that should govern the design of interventions and the implementation of associated knowledge projects arising from a knowledge audit.

Elicitation of Anecdotes: Story Circles

One of the most effective early win projects in organic knowledge management is in the domain of lessons learnt programmes. Aside from the fact that lessons learnt

programmes are often the easiest to justify, they are also the most susceptible to an organic technique. Too often called 'best practice' these programmes rely for their effectiveness on the ability to identify both past success and past failure. Mechanistic interview or workshop-based techniques fall foul of 'official histories' in which project teams or the organisation itself changes history to reflect the requirements of the present. There are two linked issues here:

1. Successful teams will tend to ignore, forget or de-emphasise elements of luck and serendipity without which their project would have failed; in some cases they may not even have been aware of them in the first place. The overriding need to succeed in the modern organisation means that the result is the only real measure, regardless of its real cause. This means that modelling future behaviour on repeating ill understood success is a very dangerous thing.
2. In contrast unsuccessful teams will tend to play up elements of luck, emphasis lack of adequate resources, their unwillingness to make more compromises and a host of other excuses.

While they never lie, judicious emphasis and de-emphasis always ensures that the right story is told; all teams or individuals develop stories to laud or excuse their behaviour. An early insight in a major project recognised that if story was the means of self-deception and concealment, then a more 'scientific' understanding of story might also be the solution (Aibel & Snowden 1998). Subsequent work has validated this original insight and revealed that fiction is paradoxically often the means to the truth. How then is this achieved?

Key to the use of story as a disclosure technique is to identify a group of socially cohesive communities who will have a sufficient body of common experience to enable a story base to emerge. Such teams may be communities of practice or competence – sharing common interests or tasks, or they may be project teams who have shared some form of time-bounded experience for good or ill. The techniques apply to both, but will be described in the context of project work, as this is the most frequent application area for lessons learnt programmes. All such workshops should be videoed, or at least taped to allow subsequent analysis of the anecdotes for KDPs and ASHEN components.

Once identified the team or a representative sample thereof needs to be assembled: the ideal period appears to be a day, or an afternoon and evening. The team are then encouraged to tell the story of their project. This first story is the 'official history', it should be told as an end of project review encouraging time-linear and logical approach: As far as possible the facilitator should attempt to recreate the atmosphere of a formal review by senior management. Then the approach switches, the emphasis is to disrupt the official history. Three techniques apply:

1: Dit spinning

Dit spinning is a British Navy saying, variations include to *spin a dit* or *swing the lantern*. A more international phrase might be *fish tales*. It's human nature in a social setting to swap experiences – and there is a natural tendency to escalation. I tell my story of water engineers meeting in a café, you raise the stakes with a holiday story of being chased by a Black Mamber on holiday in Africa, our mutual friend then reveals a scar resulting from near miss when he was a war correspondent in Beirut: and so the cycle continues. The tendency to tell a better story is natural and can easily lead to individuals forgetting the official history in their desire for status in the story battle. This technique in the hands of skilled facilitator opens up a group and reveals hidden truths, relaxing the participants to the point where revelation is easier than political correctness. Incidentally, the example above is a real case.

2: Alternative Histories

Alternative histories are an interesting form of story. They allow us to explore fictional space as a means of informing our interpretation of the past and our possible responses

to the future. In dealing with a lessons learnt programme, one is as interested to explore with a team what might have happened as well as what purportedly did. Any story has turning points; moments in time where a very small change of circumstance or a minor difference in information received or decision made would have resulted in a radically different outcome. This provides a natural way of extending the range of discussion.

Once a successful team has described their official history they are sent back to identify turning points in that history where a minor change would have resulted in failure. In its own right this tends to make them more aware of luck and serendipity than a project review. The team are then sent back again to construct a story of failure for each turning point. This leaves the group with one official history and several alternative histories – all of which provide KDPs and ASHEN components. The learning is built on a wider asset base than would have been possible with conventional techniques. It also forces successful teams to examine the possibilities of failure.

The technique is even more valuable for teams that have failed, where capture of the learning is more important, but the official history is likely to conceal more, after all jobs, status and promotion are all at stake. The position is the reverse of that described below; the team are asked to identify turning points where a very small change would have resulted in success rather than failure. What is interesting is that truth often emerges in the alternative histories, when it is concealed in the official one.

3: The Mulla Nasrudin Scenario, or "Teddy was very naughty"

When my son Huw was five years old, he was often prepared to admit to being naughty, so long as I went along with the fiction that *Teddy did it*. The indirect discussion made it possible to talk about the subject without pain for both parties. The Sufi's have used the technique for many years (Shah 1985). If I make a mistake, or anticipate a mistake by myself or another person I do not attribute blame directly but create a story about how the Mulla Nasrudin did it. The Mulla is a sort of court jester who does things that appear logical, but are actually absurd. There are stories about him and an associated cast of clearly drawn archetypes, loosing their water in the desert that are over a thousand years old and two wonderful stories of how he tried to get through British Immigration at Heathrow Airport without the right paperwork.

By getting participants in a programme to extract archetypes from the anecdotes they are telling, a process that can easily and cheaply be facilitated using cartoonists, it is possible to create an amusing and recognisable character set around whom fictional stories can be built. Such techniques need to be rooted in the anecdotal base of the community with whom one is working, one cannot construct abstract characters that are not so rooted and still be effective. Once such characters are created then participants are asked to tell stories about the characters themselves (Ditting techniques again can be used) as a means of flushing out experiences too painful to be formally disclosed. This technique is also used post audit as a means of embedding learning in a community through the creation of purposeful and directed business stories and the associated development of symbolic language (Snowden 2000).

Elicitation of Anecdotes: Virtual Story telling and the use of Anonymity

So far we have talked about story elicitation in a physical environment. However, in any type of knowledge management activity we have to work virtually as well as physically. It is not always possible to bring together a team in whole or part for the story techniques outlined above. In these circumstances we need to find a means by which story elicitation can take place in a virtual setting. There are obvious disadvantages, the lack of physical contact can inhibit participation; social norms that are used in *ditting* and related techniques fail without a social setting. A virtual environment also creates its own problems; individuals can lurk in the background to take advantage of material from the stories without the community being aware of their presence: *Knowledge Vultures* has always seemed an appropriate name for individuals who practice this form of anti social

behaviour. There are also advantages: in a virtual community the dialogue is captured for you, thus reducing costs; asynchronous conversations can be replayed bringing in new participants part way through the process without any significant loss of experience; there may be less inhibition in the transfer of learning.

One thing that doesn't work well is to try and replicate the physical activity in a virtual setting. Techniques and approaches that work well within the dynamics of a workshop break down in a virtual environment. One sees the problem in attempts to create virtual collaboration spaces: beautifully constructed avatars drift in and out of virtual rooms, sitting at tables, waving hands and demonstrating stylised facial expressions. The representation takes over; it becomes an entertainment rather than a means of creating understanding. Recent work within IBM's Labs (Erickson et. al., 1999) has experimented with an alternative approach which uses social proxies in virtual space. All members of a virtual collaborative community are represented by different colored dots within a circle or *Babble*. The dots of active members cluster in the center, while those of members who fail to participate gradually drift to the edge of the circle. The social proxy was combined with persistent chat line – both synchronous and more recently asynchronous. Babble had some remarkable effects. It blurred "the distinction between work and play, encouraging a freedom that is often more productive and more enjoyable than the more formal exchange of other forums.... You're free to relax and joke and exchange half-finished theories, building freely on each other's ideas until something new is born". Babble also became a distinctive place with multiple Babbles opening up to handle different topics. The visibility to the individual, and to the virtual community of which the individual is a member, induces responsibility by provided a virtual equivalent of the social clues that we get in day-to-day interaction in conventional space. Tools such as Babble permit virtual story telling over longer periods of time, by making participants aware of their own participation and that of others, without the representation taking over. The Social Proxy in a Babble is a small area of the screen, which fades into the subconscious of the participant. Virtual Story Telling provides different facilities to that physical story telling; note, different not better or worse.

There is one other feature of virtual communities that can be used, although this is experimental and fraught with ethical and other issues. It is offered with that qualification. We already know that virtual communities allow people to adopt alternative persona, or be perceived in radically different ways (Stone 1996). We are also seeing evidence that virtual environments can encourage confessional behaviour with some public web sites already established and active in this area. Use of anonymity and multi-persona is best confined to short-term interventions. It permits two types of activity that are useful in the process of knowledge elicitation:

1. Individuals can experiment with ideas and experience, confident in the knowledge that there is no direct attribution. For example a normally cautious individual may develop a 'risk taking' personality who reveals anecdotes and ideas that would normally damage their perceived profile within the company.
2. Individuals are able to reveal evidence of cover ups, lucky escapes etc. These may be malicious and it is important to remember that material arising from such exercises has to be used with care. For this reason it is usually best to have the environment managed and interpreted by a third party.

Whatever techniques are used, the purpose is to create as rich as possible a database of anecdotes – fact, 'faction' and fiction. The validity or authenticity of the anecdotal material is not really the issue: what is important is to use the material as a source of KDPs, ASHEN components and as the raw material for Story based interventions¹

Bringing it all together

Up to this point all three articles in this series have focused on the elicitation of material – anecdotes, KDPs and ASHEN elements. This material is recorded on tape recorders, video cams, notebooks and database records of virtual discussions. As the key objective

of the elicitation phase is to gather material by minimising the impact on the subject of the study, it is important not to impose or intrude with technology or people if such an action would cause offence. There are a limited set of circumstances where covert recordings can be made, but these are rare and it is still necessary to ask permission to use the material.

The anecdotal base needs to be trawled for KDPs and ASHEN components that should be identified 'as is', with no comments or value judgements. If the project is likely to require story based interventions then it is also necessary to extract archetypes and rule/value sets at this point, but that is beyond the range of this set of articles, although it is represented in full in the diagram in Article Two of the series for the sake of completeness. The KDPs then need to be clustered to get to a manageable set of material. If the analysis has been done on a database then there are a wide variety of software tools that can be used to identify common elements and provide decision support to the clustering process. However the most effective method is to use human intelligence, a large wall and hexagon shaped post-it notes. The hexagon shape was chosen as the most natural shape to encourage clustering. The technique is simple. Cover a large wall with a large sheet of paper, write all the KDPs onto individual hexagons which are stuck at random on the wall and then allow people from the area under study to walk around, clustering and re-clustering the hexagons until a pattern starts to emerge. A different colour of hexagon can then be used to provide a cluster title. Humans are much better at this sort of thing than computers, if only because the conversation around the clustering exercise inevitably triggers the memory of additional KDPs and/or anecdotal material. Once the clustering is complete it can be tested by asking the ASHEN question for each cluster and seeing if the **anticipated** responses are non-problematic in nature. By non-problematic I mean that the language is within acceptable bounds of ambiguity; if it is problematic then the cluster should be broken up into sub-clusters and the process repeated as necessary.

Once the KDPs have been identified and clustered then more conventional techniques can be used to populate the knowledge asset register. Interview guides can be prepared and interview subjects identified for each cluster of KDPs. Ideally this should not be confined to those who are primarily responsible for the particular KDP, but also for the recipients of the results. For instance a cluster of KDPs relating to decisions about responses to customer complaints would normally result in a desire to interview those who made or reviewed the decisions to identify what ASHEN components were used. An organic approach will also interview the subjects of those decisions to identify their perception of what assets were used in making particular decisions and how effective they are. The ASHEN question should always be asked several times with a different emphasis: What did you use, what are used by other people, what should be used, what may be needed in future, what were present in the past, but are no longer necessary. Depending on the size of the population, questionnaires, workshops and chat areas in public or private virtual space can all be used for this work.

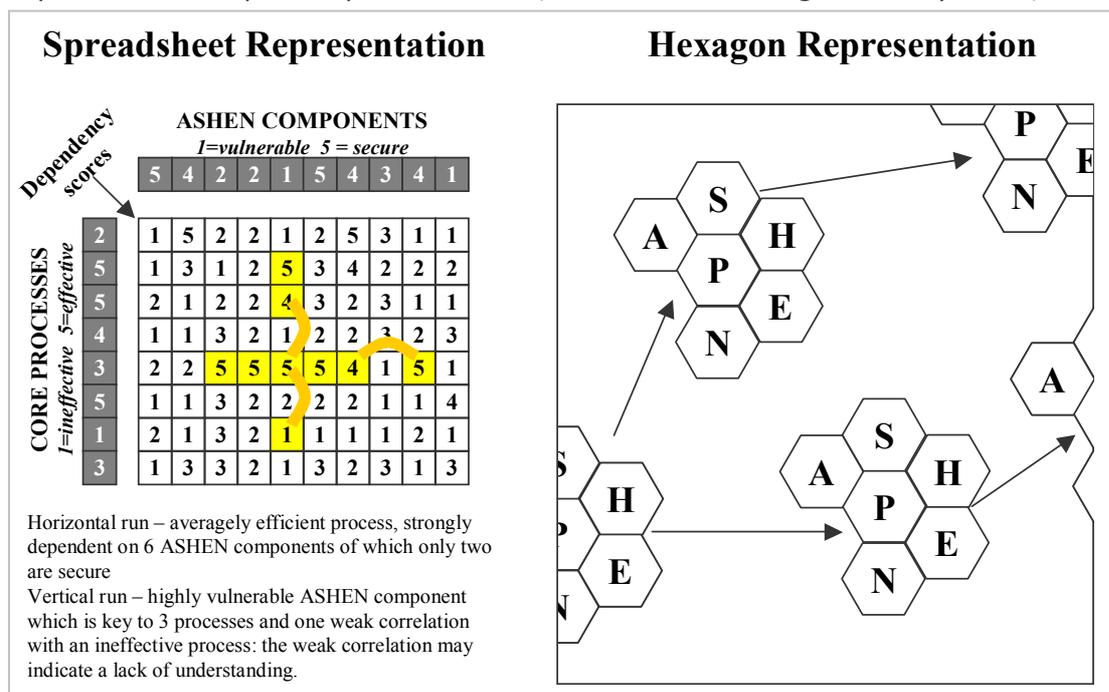
As for KDPs the results should be collected and clustered without comment or judgement. ASHEN components identified during the anecdote elicitation phase can also be incorporated. It can often be useful to contrast ASHEN components directly observed with those remembered under prompted questioning. The clustering technique for ASHEN components is the same as for KDPs and again the human interaction often prompts memories. Once clustered ASHEN components should then be related to core business processes. This allows us to identify many-to-one and one-to-many relationships. The link to process is key; without process no business practice will ever scale.

Up to this point, the emphasis has been to accept the results without judgement. Now we need to make some assessment of the dependency of the process on the ASHEN component and the degree to which a process is effective and a knowledge asset is 'secure'. These are two different measurements although both are best expressed in

numerical format. 'Effective' in this context means that we are good at it; 'secure' means that we are not vulnerable to its loss.

There are a variety of ways of linking the results of this work. One is a simple matrix structure using spreadsheets. The two axes are ASHEN components and core processes. It is then possible to use simple a 1-5 scale of dependency to link knowledge with process and a similar 1-5 scale for 'effectiveness' and 'security'. This has the advantage that various mathematical games can be played to show linkages, although the author has a preference for spotting vertical and horizontal high scoring 'runs' as shown on the left hand side of figure one. A vertical run demonstrates that a particular knowledge asset is key to a range of processes, a horizontal run that a particular process is dependant on a range of knowledge assets. The former will tend to result in a single intervention focused around the knowledge asset in question and should be a priority for intervention if the asset has high vulnerability. The latter may require more extensive investment in systems and process improvement with multiple interventions. In generally single interventions are most likely to lead to quick wins. An alternative representation (the right hand side of figure one) is to use hexagons to visually associate processes and assets using a RED-AMBER-GREEN colour coding. This allows more human identification of composite interventions and encourages more innovative or lateral thinking. A project may use one or both.

The essential point of this is to target a series of interventions, in such a way as to allow the ecology to evolve in its effective use of knowledge. Alternative approaches based on a presumed and presumptive outcome, for instance "design a KM system", assume that



a mechanical solution can be engineered and designed, rather than grown. An organic solution does not reject large-scale systems, but it does reject their design in isolation from practice. A simple metaphor will illustrate this. I plant grass in a courtyard and observe the paths that people naturally wear across the grass then, when I build paths, I will build them where they are needed with consequential lower cost and higher utilisation. Which is not to say that I might not also plan the odd hedge or use landscape features to guide the flow of feet!

Heuristics for Interventions in the Knowledge Ecology

There is no such thing as a standard approach, or a standard application for knowledge management. Each situation is unique in terms of context, desired outcome and location

in the history of a community. The most effective systems concentrate on the provision of infrastructure and tools, waiting to see what is used before major investments are made to consolidate and scale proven examples of 'clustering'. The temptation to propose a 'XYZ solution to KM' is an obvious temptation to the purveyors of both technology and professional services. It makes life simple, but at the price of being simplistic. What we can do is to identify some guiding principles, or heuristics through which we can judge any proposed intervention. Heuristics are valuable because they summarise in memorable phrases a body of experience or wisdom that can be applied in unanticipated circumstances. They apply expertise without the need for the expert to be present. Several years of experience have resulted in the heuristics set out below. All three have already been indicated in all three articles and their origins referenced.

1. Knowledge is only ever volunteered: it cannot be conscripted. (Drucker)

Conscripts do what is necessary to survive, volunteers share the vision. It is possible and necessary to conscript someone to conform to a quality standard, but they can only ever volunteer their knowledge. A volunteer system requires recognition of the fact that someone may choose not to volunteer and should not suffer any penalty as a result. The paradox is that permitting people to withhold knowledge increases knowledge flow within the organisation. It respects privacy and engenders trust. Trust and Privacy are emerging as the two key words in knowledge management and e-environments.

2. We can always know more than we can tell, even after we have told it and we can always tell more than we can write. (Polanyi with addition)

That is not to say that we should not codify, but if we do, then we should do so in the sure and certain knowledge that we have inevitably lost some context and content in the act of doing so. It may take an experienced plasterer two weeks to write *The ten easy steps to plastering a wall*, but my possession of the book does not remove the two years of experience and training necessary to plaster a wall: too many Intellectual Capital Management systems are creating organisation full of amateur plasterers. This all applies to many management textbooks with start off with variations of *The seven steps*

3. Most valuable knowledge is only known when it is needed to be known.

This is the central theme of the knowledge elicitation approach outlined in this series of articles. Asking people what they know only gathers the superficial artefacts and skills, it nearly always misses the key heuristics, experience and natural talent, not to mention some of the more useful artefacts – the café diary and the supermarket record of exceptions to reference two quoted examples in the first two articles. Knowledge is contextual and revealed in action; it can be disclosed through observation of its use or through reconstruction using story telling and other related techniques.

Application of the above heuristics both to planned knowledge interventions, systems and consultancy method provides an organising framework that is more likely to lead to respect for the people and communities that are at the heart of an organisations intellectual capital. We are dealing with a complex ecology, that needs to be nurtured with patience and loving care; however it still needs to be managed. Knowledge Management is not an oxymoron, it is a necessity. But, a purely mechanical approach is moronic.

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¹ Story based interventions are covered in other articles by the author.