

Story is an ancient skill whose value we are starting to rediscover. This rediscovery coincides with a growing recognition that technology, and more specifically computers are no more and no less, than the latest in a series of tools that human society has created in its search for meaning. Tools are artefacts that human being use—when appropriate—to support some greater purpose. The very pervasiveness of computing has encouraged a shift away from idolatrous attempts to get the computer to replace fundamentally human capabilities. By making the computer *ordinary* we gain power over its use. We have started to recognise that a tool is something that fits the hand, we should not need to bio-reengineer our hands to fit the tool. As these tools become increasingly capable of managing data and information, it becomes possible to devote more time and energy to utilise the richer emotional, imaginative and innovative capabilities of humans within organisations. Those organisations that respond to this opportunity are more likely to capture market share. As choice expands, consumers will increasingly make their choices on the basis of emotional and empathetic grounds—utility, reliability and functionality will be assumed and will not of themselves provide a differentiator.

For strategy, Story is a valuable tool to understand our current situation, anticipate possible futures and to prepare the organisation for action. Within this article I want to look at the use of story both to create a self aware descriptive capability in organisations; and to initiate and sustain interventions that will create the three ‘R’s of the modern organisation—resilience, robustness and redundancy. In order to do this I will first look at the context within which story is being used.

The Uncertainty Matrix

Uncertainty is the new reality. The horizon for planning has been radically reduced over the past few years. Strategy thinking is shifting from thinking about products and marketplaces to focusing on resources and capabilities (Zack 1999). In the former the function of the firm is to

gain significant control over one or other (or where monopoly is possible both), the focus is external. In the latter case the focus is internal, the organisation seeks to influence or change markets through the innovative capacity of its core competences or capabilities. This shift in focus also accounts for some of the wider interest in knowledge management. The intellectual capital that we imbed in our products and embody in our processes is yesterday’s competitive advantage. The intellectual capital of the individuals and communities that make up the organisation provides the potential for future value creation.

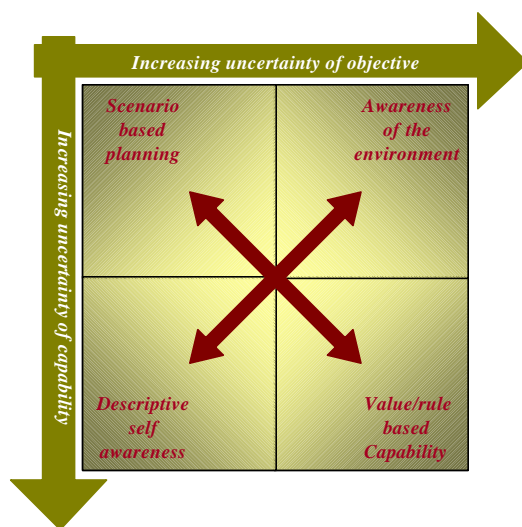


Figure 1 : Uncertainty Matrix

pendulum behaviour—the lemming like pursuit of new models and new thinking at the expense of the old. The reality is that life is often cyclical and the old is often as valuable as

the new. What is needed is a framework to understand the applicability of different models. I have used the uncertainty model set out in Figure one before (Snowden 1998) as a means of understanding the applicability of different types of knowledge to decision making. I now want to use it to understand aspects of story use in strategic planning. The model contrasts two types of uncertainty. In the horizontal dimension the further we go to the right, the higher our uncertainty about what it is that we are trying to achieve. In the vertical dimension, the further down we go, the more uncertain we become about our capabilities to achieve the objective. Objectives are things that we want to do, capability is the means by which we do things.

Limitations of Scenarios

Scenarios are a special form of Story. They involve the articulation of various possible future states against which plans can be produced. Such scenarios are constructed within the imaginative limits of the scenario authors. While such scenarios have a general education purpose (the awareness of alternatives being useful in its own right), their primary objective is to allow the organisation to construct plans to manage the situations envisaged should the circumstances of the scenario arise in the future. The objective in each scenario is known, and the plan provides the means by which we can react. Such strategic intent belongs in the top left hand quadrant of the Uncertainty Matrix. By constructing such plans the response time to react to change is significantly reduced and resources and risk can be managed according to the anticipated probability of the scenario becoming reality. They operate in the upper left hand quadrant of the model, the one in which most managers would prefer to operate. Good scenario planning will naturally attempt to construct sufficiently general cases to reduce forward uncertainty, and organisations will be encouraged to recognise that scenario planning is not an exact science. Taking this into account, it is still the case that the scenarios comprise a closed system. The real danger is not where the future differs radically from the scenario, but when it appears to be similar. In the case of radical difference we *know* that the situation is one for which we have not planned. In the case of subtle difference we will tend to *assume* that it is the same. In a new situation a very small initial reaction will tend to have a disproportionately large effect on the future. Food scares such as the Perrier case all show that the initial response to a new situation is disproportionately influential in that it sets the scene and restricts future options. This is not to argue against scenario based planning. It is a necessary hygiene activity for management, but its application is necessarily limited to knowable future situations. We should not delude ourselves into believing that we have also covered the remaining three quadrants in the Uncertainty Matrix.

Differentiating anecdote from Story

To understand the role of story in the other three quadrants, we need to understand more about the nature of story itself. The model in figure two has been developed with colleagues within IBM both in Europe and the USA over the past two years. It has been proved in both education and strategy assignments. It is based on two fundamental insights.

1. A distinction between an anecdote captured in the field or arising from a brainstorm or research, and a story that has been constructed for a specific purpose.
2. Recognition that stories represent underlying values or rule sets that provide the self-organising capabilities of the communities that they represent. This is a concept drawn from complexity theory, namely that simple rules

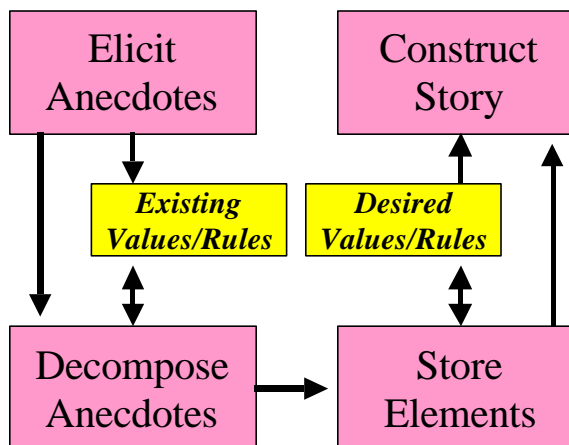


Figure 2 – Aspects of Story

allow consistent behaviour in the face of uncertainty.

The distinction between anecdote and story allows us to go beyond basic story enhancement techniques. There is huge value in capturing and distributing anecdotes within a company. Such activity at 3M is seen as moving beyond the “laziness of bullet points” to the greater complexity and context setting of narrative form (Shaw et al 1998). Many companies are hiring actors and scriptwriters to improve the presentation skills and capabilities of their Executives. However there is a need to step beyond this to create the capability across an entire organisation. It is not enough to increase skills of some individuals; the art has to become a science in order that it can scale. This means introducing a degree of analysis into the art of story telling. That is not the same thing as script writing—although script writing is as much a science as an art these days. The scriptwriter is producing an entertaining film; while corporate story telling seeks to create purposeful and goal directed activity.

Story Decomposition

Decomposing a story into its component parts allows improved storage of story elements as well as providing models for individuals in companies to create more compelling stories (Orton 1995)—its rather like providing the amateur artist with an articulated model to assist in drawing life models—or more prosaically a ‘join the dots’ picture drawing guide. There are a variety of suitable techniques for story deconstruction. Who, what, when and where (forget why its too difficult) is useful for computer storage of anecdotal components. Story feature is the most useful starting point for new entrants. The following illustrates its use on a common legend:

Context	Medieval Village terrorised by dragon who requires the annual sacrifice of a female virgin.
Initiating Event	Kings daughter nobly insists her name is included in the lottery and is ‘naturally selected’ for this years ritual
Protagonist (P)	Visiting Knight
P’s internal response	Falls in love with Princess
P’s external response	Kills Dragon
Consequence	Marries the Princess and inherits half the kingdom
P’s internal response	Becomes arrogant little prig and oppresses the peasants just like his father-in-law.

Apologies for the last one, but the author is Welsh and was always on the side of the dragon, not to mention the peasants.

Breaking a story down into its component parts allows an ‘amateur’ to improve an anecdote so that it is both memorable and compelling. It also allows us to create stories from multiple anecdotes. My son had a small book when he was young which illustrates this technique. It consisted of pages of animal pictures, but the book was cut in such a way as to separate the head and legs from the body in each case. By flipping the pages imaginary animals could then be constructed: the head of the penguin with the body of a bear and the legs of an ostrich is one that I remember with fondness—its was so realistic we even created a name for it. One significant point here is that the construction of multiple stories from a limited number of anecdotes greatly extends the range of permissible scenarios. It also forces us to think outside the box. Evolutionary failures often teach us as much if not more than successes. In fact this is generally true of story based learning in companies. A negative story of someone else’s failure spreads more quickly than one of success. Part of the reason for that is that we are attuned to failure as a survival characteristic. It is more important to avoid failure than to imitate success if we are to evolve.

From prescription to description

Well-constructed stories increase our descriptive capability. Here we come to something at the heart of effective strategic thinking. What matters in an age of uncertainty is that we develop a capacity to describe our environment and the self-awareness to honestly describe our capabilities. That means that we inevitably face the dilemma of trust. Despite the protestations of many senior executives, the reality of corporate life is that admission of failure is not a survival behaviour for their employees. Politics is an inevitable component of corporate life and maintaining the personal 'story' a vital aspect of progression. Now some *great* leaders create an open environment in which failure becomes a corporate asset, but these are exceptions that prove the rule.

If we look at resource based models of capability, they effectively belong in the top right and bottom left quadrants of our uncertainty matrix. The focus on two descriptive requirements:

1. A need to accurately describe our capabilities
2. A need to describe the environment in which we operate (or desire to operate).

Strategy then becomes the act of linking the two. In both cases the science and art of story can be useful. One immediate application is to create a means by which the organisation can learn from failure without attribution of blame. Fictional story forms are very powerful. One form of corporate story is derived a Sufi tradition based on a standard character set (Shah 1985). Here a set of characters: the Mullah Nasrudin, his wife, his donkey, the Caliph and others have hundreds of years of history and story creation behind them. There are Mullah Nasrudin stories about his loss of a goatskin container of water in the desert and Mullah Nasrudin stories about meeting British Immigration at Heathrow. If I make a mistake, or as importantly anticipate the possibility of a mistake then it is natural to create a story about the Mullah Nasrudin's mistake that will be shared by the whole community. The story form naturally propagates so the learning is spread. It is very easy to create similar character sets within an organisation, provided the characters are created from archetypes extracted from a sufficient volume of representative anecdotes. Once established they provide a vehicle for corporate learning and a repository of corporate memory.

Another example is the use of story virus. Often an organisation will have created a perspective or view of the world, based on its prior history that prevents learning and creates an unhealthy blindness to reality. In one project (Aibel & Snowden 1998) an urban myth was present in a sales force—the client who they lost, but came back when they realised the error of their ways. The story was pervasive and not in any way based on reality. It was being used to excuse failure rather than create learning. Deliberate exaggeration told at a sales conference in a compelling and amusing way—utilising the story model illustrated above—produced a more compelling and memorable version of story that derided the original urban myth.

Story conveys complex meaning through the sub-text

There are many more examples of this type of use of story. The reason it is successful is that it taps into a common skill and understanding that is natural to human society. There are a small number of universal fairy stories, common to all races, religions and cultures that we learn as children—and new universal stories being created through Hollywood. Use of these story forms allows the hearer to associate other experiences and bring a richer range of knowledge to bear on a current problem. A well-constructed story can convey a high level of complex meaning. Use of sub-text (an unstated message beneath the surface of the dialogue) can convey learning without the need to make it obvious—think of the way that fairy stories told to children convey the values and morals of the society in which they originate. Story in this guise creates a heuristic framework to allow decision-making in conditions of uncertainty (Snowden 1999). In training clients in the science and art of purposeful story telling I use a short scene from Casablanca. I start by playing a tape of a scriptwriter talking about the scene, its place in the film, the complex relationships and transitions underlying the dialogue. This takes 30 minutes. I then show the film clip, which is less than three minutes in duration. The economy of delivery, combined with complexity of meaning is one of the main strengths of

story for corporate strategy. A good story will also generate anecdotes in its own right. Legitimation of a certain type of behaviour through a well-told story will elicit unprompted examples of similar behaviour in a community. Such a mechanism allows us to discover capabilities of which we were only partially aware—in general we only know what we know when we need to know it.

The proper use of story then can increase our descriptive capability. We can (in lower left of the uncertainty matrix) capture anecdotes about our capabilities. We can refine these into pervasive stories that create a greater awareness of what we could achieve. We can also use the ability of a good story to generate imitative examples to discover new knowledge and capability that we possess but do not use. The creation of scenarios based on this new view of reality will improve our forward planning and implementation. In the upper right quadrant we can do the same thing, but now the subject of our anecdote capture are our markets, customers, competitors, journalists to name but a few.

This gives us a key aspect of the use of story for descriptive purpose. Often in traditional scenario planning the scenarios are constructed through structured analysis and limited brainstorming of key decision makers and analysts. The issue here is that we have a natural tendency to construct the reality to reflect the perception and beliefs of the individuals involved. Non-intrusive use of anecdote capture techniques can mitigate the dangers of this type of blindness.

Common values enable consistent action in the face of uncertainty

So far we have dealt with the descriptive capability of story and the first of the key insights identified earlier: the separation of anecdote from story. The second insight is of equal or greater importance and relates to the use of story to identify common values and rules.

It is worth relating (with apologies for the over simplification) one of the common stories on the origins of complexity theory to illustrate its importance. *Once upon a time* some scientists were attempting to forecast the flocking behaviour of birds. They captured large amounts of data, built complex models using advanced statistical techniques. The results were only an approximation at best. The early complexity theorists built a simple computer model in which each bird followed three simple rules: follow the next bird; match its speed; avoid collision. The result was a model that mimicked the real behaviour of birds. The paradox is that simplicity allows an organic entity to self organise in the face of complexity. Take another example quoted from the US armed forces. Marine Units have to operate in the field under circumstances where a command and control operation will not always work. However the battlefield commanders need to provide direction. Instilling three simple rules—capture the high ground, stay in touch and keep moving—is simple, but the result is a highly sophisticated sense and respond mechanism. Finally think of basic human behaviour. If I have a project team to manage I have a choice between empowerment and control. For team members I know well, whose values, beliefs and purpose I share the control is light. I will be tolerant of actions different from those I would have pursued myself because of those shared values. For other team members who do not share my values and belief systems the control will be tighter—and the project will be slower as a result. I will carefully check alternative courses of action to validate that they do not contradict my value system. This control is not an issue where the circumstances under which actions will be required are predictable, but where I am operating under principles of uncertainty the control is not just an issue, it can be fatal in slowing down the sense and respond mechanism of an organisation to the point where it stagnates.

Now, back to the uncertainty matrix. If we look at the progress from the top left, to the bottom right we enter conditions of increasing uncertainty. In the top left quadrant we now the likely circumstances and we can (and should) plan for them—for instance, computer failure due to flood, discovery of poison in foodstuffs, loss of a key customer. The decision is a balance of the cost of planning against the probability of occurrence. In the bottom right had quadrant in contrast the position is very difficult. We can know that we will face fundamental change without being able to predict or even in some cases, guess the scenarios we will face. A more

common variant of this is that we can guess, but the number of possible scenarios exceeds our capacity to plan. In these circumstances we have to move from *planning* to *preparation*. The high level of uncertainty means that we will not have the time to plan, but must rely on the ability of the organisation—at a cellular level—to respond consistently in the face of uncertainty. Here the common values and simple rules referred to above can be invaluable.

Story properly understood can be of major use in these circumstances. We have discovered that once a critical number of anecdotes are captured from a community, the value set or rules underlying the behaviour of that community can be extracted. This is powerful when trying to understand the nature of a community. Valuable knowledge in its own right, it can also be used to establish likely reactions in new circumstances. Understanding these values allows us to start to utilise informal as well as formal aspects of the organisation (Snowden 1999), but more importantly provides a means to handle the high levels of uncertainty in the bottom right hand quadrant of the matrix. Managing in the domain is of increasing importance as the cycle time of change in products, markets and capabilities rapidly reduces. We live in an increasingly uncertain world in which the ability to make sense, and define sense for others is a major competitive advantage. Another metaphor from the natural world will help illustrate the importance of this. When ecology is disrupted or changed there is a period in which the position at the top of the food chain is open. For a limited period of time several different possible futures are possible—mammals just got lucky when the asteroid struck. However once a predator is established at the top of food chain it takes a catastrophic event to dislodge it. Early understanding through sense making is therefore key for the modern organisation seeking to occupy that niche rather than in turn being subject to predation.

Story provides a means by which current values can be elicited from the ecology in question and new or modified values formed to allow a community to dynamically make sense of the new and provide form to chaos. The reality is that we often do not have time for mechanical analysis and require the more responsive organic models in which story forms a natural component. It is also true to say that story will already be a component of corporate strategy in this domain—the question for organisations is whether they want to manage it in a professional manner, or allow its amateur use. Organic knowledge management, of which story telling is one method, can be seen as the sports science of intellectual capital. In the same way as the development of sports science allowed us to describe the influence of dietary and exercise regimes on the muscles of an athlete’s body. So organic knowledge management techniques such as story are allowing us to describe the nature and impact of intellectual capital. It is open to organisations to rely on natural talent and basic exercise programmes, but the future belongs to the professional.

Value Based Strategy—the third way

Having explored some of the ways in which story can be used, let us return to its place in the art of strategy. At the start of this article we distinguished strategy thinking based on markets and products, from strategy thinking based on capabilities and competences. I want to suggest that there is also a third option, based on common values.

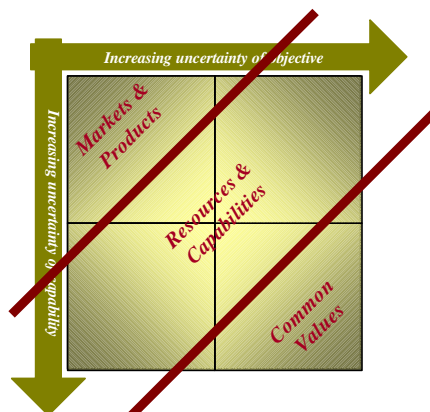


Figure 3 : Strategy models in uncertainty

Such strategic thinking should be unthinkable in traditional markets or as a mechanism for strategic focus. However in areas of high uncertainty it is the only viable approach. It focuses on creating communities that are resilient, robust and carry a high degree of redundancy. The result of focusing on these 3 ‘R’s is that the community is able to evolve rapidly to accommodate uncertainty. It is the hunter gather sense and response mechanism of the tribe, able to handle a dynamic and changing situation based on a intuitive or instinctive common response and understanding. Individuals in such a team share

common values and can rely on each other to respond consistently in accordance with values—simplicity of values manages complex circumstances. They are resilient in that they are tolerant of small failures if those failures increase understanding and descriptive capacity. They are robust in that they have a high tolerance of uncertainty, they will even thrive on it. Vitally they carry redundant functions as they do not know what skills, experiences, heuristics and natural talent will be required in the future. Organic entities evolve because they carry redundancy within them. Machines are optimised for a particular set of anticipated circumstances and are optimised for those conditions. Its not that one is right or wrong, but that they are both appropriate in different circumstances.

A reversion from farmer to hunter gather

The intuitive and instinctive response of the Hunter-Gather model is appropriate towards the bottom right of the matrix. We can contrast this with the agricultural model of the top left. In agricultural communities there is a cyclical pattern to life. We prepare the ground, sow the seed and reap the results. Roles are known and defined. Power comes through ownership of land. Slaves can be driven to perform predefined tasks with measurable outputs. In the modern organisation ownership of a budget provides feudal power to the budget holder over less well-connected but frequently more able 'slaves'. Alienation is achieved through preventing access to power brokers and resources. A Hunter Gather community is different. It has a higher capacity to tolerate and take advantage of uncertainty. Anthropological work has identified that a Hunter Gather population is idle for longer periods than an Agricultural one—they sit around the tree and tell stories. This provision of space and time for reflection and attuning members of the tribe to common goals is a key component of their success. The other characteristic of Hunter Gather's is that the leadership is Patriarchal not feudal. The leader has to have the respect of those he leads through strength and cunning, his role can easily be challenged by a stronger younger competitor. In an agricultural model a weak leader can be protected by bureaucracy, and the inner world of the hierarchical community can easily exclude new thinking.

The lessons of the above metaphor are clear for the modern organisation. It cannot afford to adopt a single model, but must create a portfolio of models to enable it to manage different levels of uncertainty. It must become self-aware, both of its own capabilities and its environment. The higher the uncertainty the more it needs to avoid prescriptive models and focus on sense and respond mechanisms based on its descriptive capability. The higher the level of uncertainty at which we either have to operate, or more beneficially at which we choose to operate requires a concentration on common values and rule systems that allow the network of communities from which our organisation is formed to self organise around a common purpose. In this world, old skills such as story and other models drawn from organic rather than mechanical thinking are survival skills, not nice to haves.

At its most fundamental Story provides a simple agent through which we can communicate complex meaning. Story is one of the means by which we enable self-organisation in the face of increasing uncertainty. The great religions have all been based on pervasive and memorable stories that provide a common set of values and beliefs to their adherents. The stories provide role models and heuristics that allow members of religion to make choices in circumstances not anticipated by the original storyteller. The Christian Religion started with a highly ethical individual who conveyed his values through stories and parables. The theologians arrived some years later. Without the theologians the religion would not have 'scaled', but without the storyteller nothing of value would have been created. One of the problems with much management science is that we too often start with the theologians and forget the storyteller.

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