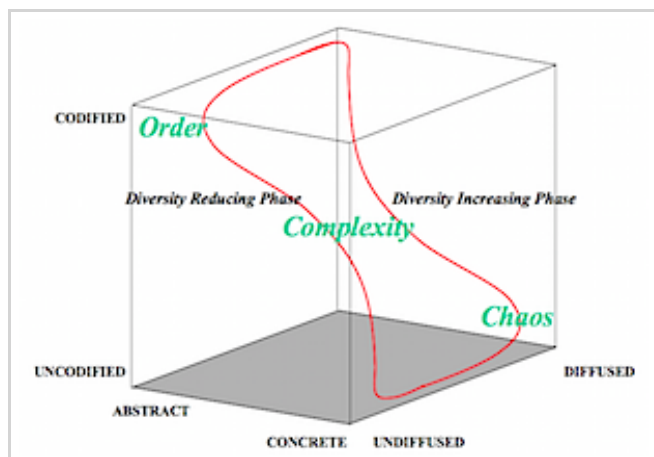



The Origins of Cynefin - Part 1

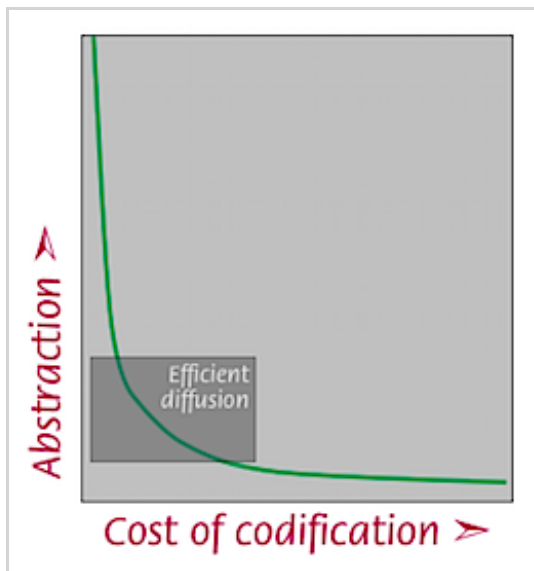


It's been a long time coming but I'm getting to the next

stage of the [Knowledge Sharing Across Silos](#) series where I will start to move from analysis to the problem to solutions over a series of posts. However I found when I started writing the first solution post that there was still a story to be told, namely the origin of the Cynefin Framework (or at least its early stages). It all started as a means to understand how informal networks and supporting technologies allow greater connectivity and more rapid association of unexpected ideas and capabilities than formal systems.

A long time ago now I read Boisot's [Knowledge Assets](#) for the first time and thanks to the agency of [Yasmin Merali](#) met the author and started to work with him; I'll be teaching with him in [Hong Kong](#) next week as it happens. The I-Space model shown is a cube based on three axes: abstraction, codification and diffusion. The social learning cycle (red on the picture) shows how as knowledge is increasingly moved from concrete experiential Zen type knowledge to codified highly abstract (expert language etc) it is increasingly easy for it to defuse independently of the knowledge holder. Once internalised it moves back to the concrete. Now that is very brief, you really need to read the book.

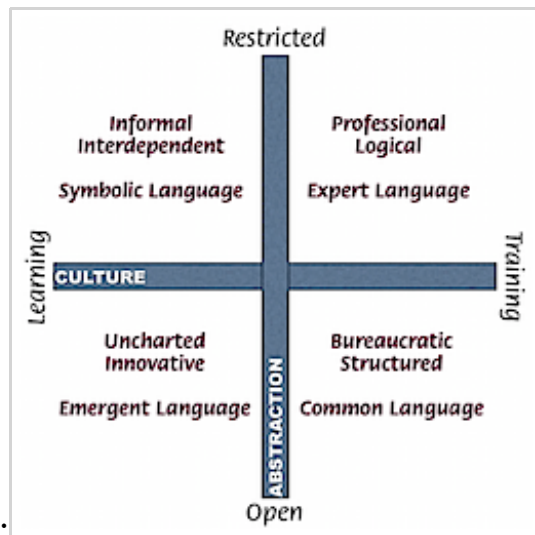
Initially in a workshop at Warwick University and then in a series of articles I started to take some of the ideas in the I-Space, added much, modified much and ended up with the Cynefin model. That was the first time I have taught with Max, there have been many times since. This was at the height of the knowledge management movement, then dominated by the SECI model and a focus on codification. My first move was to modify the I-Space to create a different perspective on what would become one axis of Cynefin. I took the abstraction dimension, but looked at that in relationship to  cost of codification.



The result is shown here, and more fully elaborated in [this](#) article. Its fairly simple; at the highest level of abstraction (you have a conversation with yourself) the cost of codification is very low as you have a 100% shared context (hopefully). On the other hand if you want to share your knowledge with everyone then the cost of codification will approach infinity. Basically the less the shared context the higher the cost in money, time and effort of creating a knowledge artifact of artifacts which will successful allow knowledge to diffuse without the direct mediation of the knowledge holder. The net result is that is a very narrow range in which it makes any sense to codify at all, which I call the zone of effective diffusion (I used to call it the zone of acceptable abstraction but that is not as accurate and its too wordy to boot).

Now any effective diffusion is dependent on shared context, but it also varies on the degree to which the knowledge context is dependent on cultural aspects. Highly explicit cultures find it easier to codify what they know - think of engineering where there is a body of knowledge, an established education and training programme and a body of published material. On the other hand much knowledge is informal, is deeply dependent for understanding on common shared experiences and deep trust built over time.

Given these two elements I created a model with a vertical dimension based on the balance between low and restricted levels of abstraction and the horizontal one flexing between teaching and learning cultures. At various times I also used explicit and tacit, rule based and ideation based and other language. It isn't the Cynefin model, I was only just starting to study complexity and was proceeding with care. Far too may people read up on something quickly and use the language without real real understanding. You see a lot of that with complexity theory and neuro-science, and there are now some cases with Cynefin itself. Either way its not somewhere I wanted (or want) to go. You can see the evolutionary path that led from this model to Cynefin but Cynefin only really arrives when complex adaptive systems theory is used for the first time. The model allowed me to look at four types of



community or knowledge sharing context. as follows:

- **Low abstraction - Teaching**

Here we are dealing with material that has to be known and understood across the whole organisation without human intervention. Its very basic stuff like expenses and the like. This domain is never an issue for cross silo sharing. Well that is not strictly true, its where all the problems are as far too many organisations attempt to reduce all their sharing activity into the highly structured forms of this domain and that is where things go baldy wrong.

- **Restricted abstraction - Teaching**

The domain of the expert. Context is provided by professional education and formalised training. The mechanisms for communication are well established - papers, report logs and the like. Membership of the community is by dint of training and/or function and is formal rather than informal. Within the bounds of established (or possibly establishment) thinking and language transfer is pretty effective. However in an inter-disciplinary environment, or in a field where novel ideas that challenge the establishment are emerging this is not a good space.

- **Restricted abstraction - Learning**

Its important to understand that the abstraction level here is much more orientated to common experience than it is to specialist language. To communicate in these environments you have to live the life, share the experience, intuitively understand the values. This is the domain of the shadow or informal networks on which all organisations depend. It's also the area of serendipitous encounter. To take a classic case, two employees of the same organisation attending a conference have a conversation about an embarrassing side effect of a drug, result Viagra and we can add the glue that didn't work which gave rise to PostIt™ notes and many others. Innovation, linking across silos is far easier in an informal network than in a formal system.

- **Low abstraction - Learning**

Here we are dealing with novel and the unexpected. The abstraction level is open due to that novelty. No specialist language has yet evolved and there is little or no experience in any part of the communication. We have to develop practice, allow language to emerge through our interaction with reality. It may be uncharted but we can still navigate it if we understand some of the principles of how to allow new ideas and concepts to interaction and co-evolve with real world problems. I

didn't know it at the time, but this was one of the spaces where social computing would provide much utility but also at least in part fail on its promise. The space is too unstructured, too anarchistic for meaning to emerge. I hadn't fully understood the utility of partial constraints, and that is a subject I am still exploring.

It was early days but the ideas were forming. I am OK with the above model, although I think I misused symbolic and I wouldn't fall back to it. That version went on to be a part of a book chapter before complexity theory crept in and the early forms of what is now Cynefin started to emerge. More of that in a future post

Original URL:

<http://cognitive-edge.com/blog/entry/3505/part-one-origins-of-cynefin>

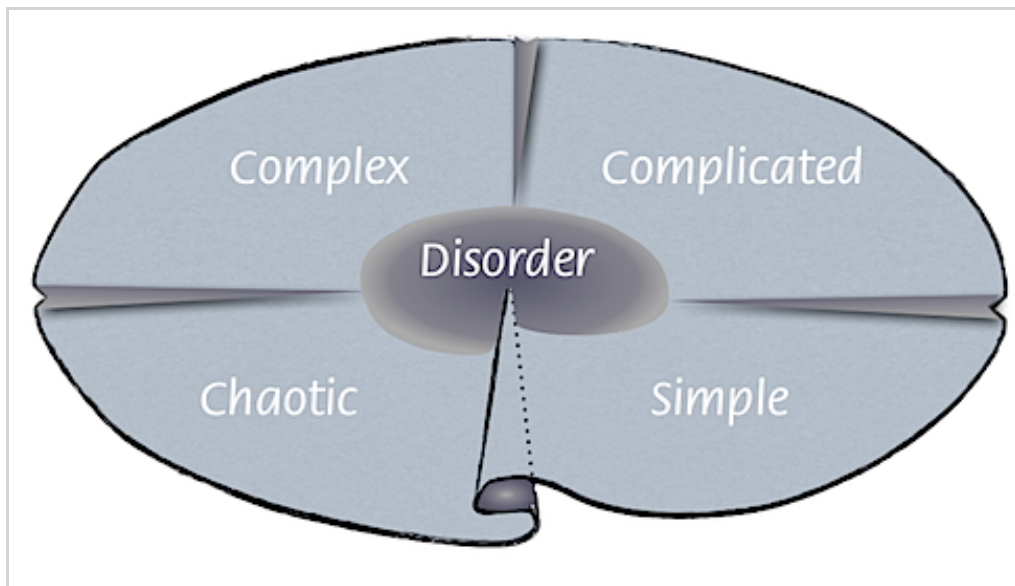
The Origins of Cynefin - Part 2

Back in March I started a series on the origins of Cynefin. The [first post](#) described the original inspiration from Boisot's I-Space model and there were a few side postings, [one](#) on the importance of the name and then with regrettable necessity, a longer [post](#) dealing with Tom's attempt to abscond with the name (and brand) for something that was inauthentic as best, unprofessional at worst. Since then Cynthia (who made a significant contribution to Cynefin) has published some of her own thoughts about that period and her confluence model, aspects of which were brought into Cynefin and which she is now developing further. I [commended](#) (and commend) readers to that material. I plan a fuller commentary on her post next week, but for the moment I need to move the history on to bring the story uptodate with the point at which Cynthia got involved, which will take a couple of posts at least, possibly three.

Part 1 of this history saw the idea move from the three dimension I-Space to a quadrant model which contrasted levels of abstraction with rule based and ideation cultures, an idea I took up again in the posts of the last two days. From that point three major changes took place

1. The realisation that the nascent model was far more than a knowledge and learning model, but could provide a multi-ontology approach to decision making by bringing complexity theory into play. That allowed ontology (the nature of things) to determine epistemology (the way we know things).
2. Partly through developing processes for the social construction of the framework, partly through reflection, the realisation that phenomenology (the way we perceived things) had to be considered which resulted in the domain of disorder.
3. In further extended conversations at the Academy of Management (where the price of an award for original work in KM was to present the ideas to active criticism from Max Boisot and J C Spender) the incorporation of the catastrophic fold between the simple (then "known") domains and chaos.





As part of that *examination* (and I use the word advisedly) Max suggested representing Cynefin in three dimensions, and bringing René Thom's catastrophe theory into play. A lot of coffee and conversation later the a picture emerged of Cynefin as a plane, with a fold at the base and the boundaries between the domains as valleys or ridges with a messy disordered hollow, or peak or possibly a diaphragm pulsing somewhere in the middle.

Now I should make it clear that I have changed that original picture a bit, when we drew it *Order* was not separated into *Simple* and *Complicated* it was shown as a single domain. In many ways in that form it was a pure ontological model. Critically it established that the boundary between order and chaos was significantly different from that between the other domains where the boundaries were more blurred and transition might only be retrospectively coherent.

So, at that meeting in Washington two models existed, the quadrants of my first post in these series which related to knowledge and learning and the above model which represented the ontology of systems and the first real incorporation of complexity theory. From that point onwards the model went through the following steps (which will be covered in future posts)

1. A merging of the knowledge model with the above to create a five domain model (known, knowable, complex, chaotic, disordered) with the catastrophic fold shown in a stylized form at the bottom and shown in [Complex Acts of Knowing](#).
2. The incorporation of the sense-respond nomenclature
3. The distinction between a sense-making framework (data precedes framework) and a categorisation model (framework precedes data) together with formal methods to socially construct Cynefin from the narratives of an organisations past and possible futures
4. The addition of the tetrahedrons (Cynthia's "seeing eye" model) and at this point we see the publication of [The New Dynamics of Strategy](#) which was the first to two articles co-authored with Cynthia

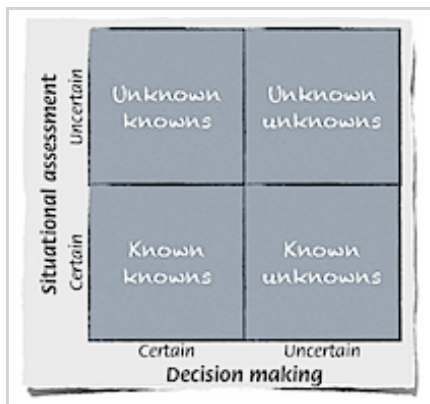
5. Work with Cynthia to use metaphors to describe the different boundary states which also saw the use of the framework to create a model (and the difference is important).
6. The separation of ontology from epistemology with *known* and *knowable* becoming *simple* and *complicated* which was first published [here](#) but was also the base of the HBR article with Mary Boone *A Leaders Guide to Decision Making* that article also reclaimed the idea of known unknowns which had come in many years earlier and had to be abandoned after its adoption by Donald Rumsfeld, but more of that in a future post.

Now I should say that I still like the planar model above a lot, and over the years I have tried to move back to it several times, but its not easy to draw. I'm still thinking about it, as I have another major development which looks at different types of complexity and aspects of chaos which may involve a new framework, or possibly can work within the above. I'm still thinking about that

Original URL:

<http://cognitive-edge.com/blog/entry/5656/part-two-origins-of-cynefin>


The Origins of Cynefin - Part 3

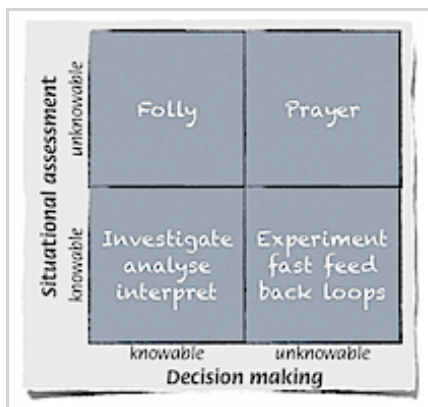


I have resolved to complete this history over the next couple of days. In [part 1](#) I took the history from its origins in my reflection on Boisot's I-Space, to a quadrant model contrasting abstraction with learning/culture. In [part 2](#) I moved on to describe a planar model which incorporated complexity and catastrophe theory. These essence of that second model was the realisation that I was talking about the nature of systems (i.e. ontology) not simply a model to understand knowledge flows and that as such the model had more general

applicability. My own background was in decision support systems; I designed and built such systems for the Guinness Group, Mersk Shopping, Tootal Group and the Vesty family during my programming/design days in Datasolve using [FCS-EPS](#) which was a programming language ahead of its time; sentimental moment there.

I had come to knowledge management from decision theory and strategy. One of the basic models I developed back in those dates (Datasolve had now merged with Software Sciences to create DataSciences) is shown above and just for the record this was back in the mid nineties and yes I did shown the model in Washington before and after 911. Basically the model contrasts certainty of decision making and our level of certainty in our understanding of the situation. If we are confident in both the we are dealing with the *known knows*. If we know the situation but we are not sure of the consequences of our decisions then we are dealing with the *known unknowns*. If we are pretty certain our decisions will do no harm (an early expression of safe-fail experiments) and will help us understand what is possible then we are dealing with the *unknown knows*. Then of course we have the really interesting area, both for threat and opportunity, where, when it comes down to we have no idea what is going on or what we should do.

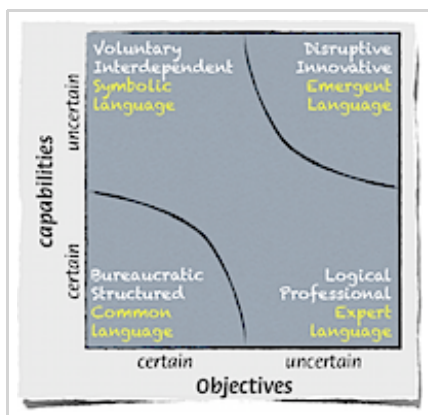
Now I got more and more interested in the *unknown unknowns* and started to play with another matrix (I hadn't yet worked on the detox programme to stop using two by twos, but in fairness I was not long out of an MBA and knew no better). I can't remember the exact details so I ma ve this wrong (if any



reader our there has an original please let me know) but have done my best to reproduce it here. The key thing is not the content of the boxes, which never really worked, but the introduction of a distinction between known, knowable and unknowable.

Now remember that the Cynefin model was, it is early days a knowledge management model. So the distinction between known and knowable was attractive. In parallel with this I was writing a chapter for [Knowledge Horizons](#) on the social ecology of knowledge

management. That was still using the learning quadrant model and used movements between the quadrants to identify different culture types in organisations. Rereading it for this posting I can see it was an early phase of what became Cynefin Dynamics and has some potential for development. The quadrant model was, and remains a learning model and it this emphasises the role of language (which was also the inheritance of Boisot). For that chapter I took the *uncertainty matrix* (my name for the model that starts this post) and translated it into a matrix that balanced capability with objectives. This model shows a nascent version of the current version of Cynefin.

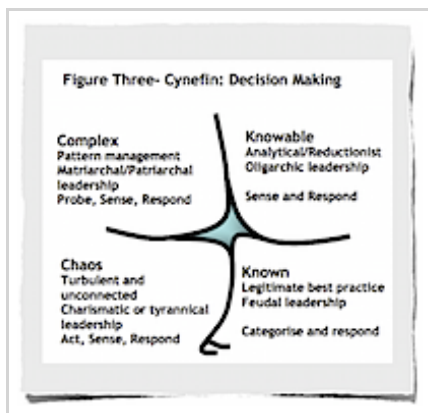


This is a pragmatic model, and tries to get people into the idea that they capabilities and objectives may not match up, along with the idea that informal networks and communities may provide a new way of handling uncertainty. It also contains what became a key feature of later writing, namely the *a priori* limitation of what expert knowledge can achieve. It put me at odds with a lot of the dominant thinking within knowledge management at the time which emphasised

collecting experts in communities of practice.

So all of this stuff was swilling about in my mind and then one day (I think at Warwick University) it all came together and I drew the basic Cynefin shapes of four curved lines with the squiggle at the bottom. In effect I too the planar shape of part two, mixed it up with the various matrix models and created something very different with far more potential.

There is one more element needed to complete the picture. By now I was in IBM and various attempts were being made to match what I did with others The problem here is that thought leaders don't really mix well; each have their own ideas and they are reluctant to accept challenge (this is commentary and confession by the way). In a meeting at the Hawthorn Labs I was introduced to Stephen Haeckel whose [Adaptive Enterprise, creating and leading the sense-and respond organizations](#) had created a



following within IBM. Now we had an interesting debate, and as I remember it Cynthia's then managers were present. I liked Stephen (and still like although I have not seen him in years) but we had some significant disagreements. Well I did, Stephen could not see why I was drawing a distinction between *knowable* and *unknowable* systems. I realise now was a debate that would happen again and again, between a proponent of complexity and someone writing and thinking in the tradition of systems dynamics. For Stephen it was *sense-respond* with

an underlying assumption that it was possible to manage an organisation on that basis. For me it was just a marginal improvement on the process engineering that dominated that period, and it wasn't radical enough.

Eventually, frustrated and drew the Cynefin model on the wall and created for the first time the four decision models:

- **Known:** *Sense-categorise-respond*
- **Knowable:** *Sense-analyse-respond*
- **Unknowable, complex:** *probe-sense-respond*
- **Unknowable, chaotic:** *act-sense-respond*

My point was that Stephen's model would only work in the known or the knowable, and he was assuming an analytical and model based approach would allow the sense-respond organisation to be built, it was an engineering approach in contrast with my ecological one. It was an important step, but more was to follow. But that is for tomorrow

Original URL:

<http://cognitive-edge.com/blog/entry/3455/part-three-origins-of-cynefin>

The Origins of Cynefin - Part 4

We ended episode 3 of this series with the Cynefin framework in a recognisable form after well over a decade of evolution. In this penultimate episode (and its not the hero's journey so the mentor will not die) I want to talk about one of the most fertile periods of work which spans the last (official) five years of my IBM period. This is also the period of Cynthia Kurtz's active engagement with the publication of *New Dynamics of Strategy* as a defining movement. Three major things happened:

1. The creation of methods for social construction of Cynefin and the distinction between sense-making frameworks and categorisation models.
2. The incorporation of Cynthia's *seeing eye* concept, now known as the tetrahedrons which allowed us to create a set of principles (not a recipe) for what became known as Cynefin Dynamics.
3. The period in which Cynthia and I worked on HARP (Human Augmented Reasoning through Patterning) within DARPA's [Genoa II](#) project both before and after 9/11 (yes I did sneak the Welsh National Instrument in as the name. It was an opportunity that presented itself in a meeting at Menlo Park one day and I took it.)

Now this is a significant period not only in the development of the Cynefin framework, but also in developing the practice of sense-making in organisations. It spans my move into the Institute for Knowledge Management to work with Larry Prusak and others, the creation of the Cynefin Centre in IBM and then the final act of leaving IBM to form Cognitive Edge. I haven't really written the history before so I am getting it out of my system, hopefully it will be cathartic. But the rest of this post is about organisation history not the Cynefin framework, I will return to that tomorrow.

IBM Politics, the Slime Ball and resolution of the knowledge wars.

The first few years in IBM had been interesting. Thanks to long term support from Philip Oliver (now with Fujitsu), I was hosted in Marketing with a small team of the two Nicks, Julia and some of Sharon's



time. We'd made some good progress, the problem was, that in order to develop new methods we had to execute and that brought us into conflict with the consulting group. It was made worse as I established myself as a keynote speaker in large part by not toeing the line. Things finally got nasty with the appointment of a real slime ball as head of KM Consultancy for Europe; one of those people who



believes his own lies which is problematic. I refused to work for him (the offer was dependent on my writing papers that he would author, which gives you a sense of how things were) and after that we entered a period I came to know as the IBM Knowledge Wars. It's bad enough dealing with normal politics but when deliberate untruths are told to try and get you sacked it gets pretty nasty. Fortunately I had top cover and, as could be easily predicted, the Slime Ball's lack of knowledge was increasingly exposed. I was also very very lucky in that I keynoted at a conference with Peter Drucker, and then got invited to run an Executive seminar with him and one other. It was an experience I will never forget in terms of my own learning, but it was also something that had never happened to anyone from IBM before and a few senior people started to notice. Net result I got a phone call asking for a meeting with the newly appointed World Wide KM consultancy lead.

So, one day in the bar of the Tarry Town Hilton I met [Scott Smith](#) whose opening line was along the lines of how it was a pleasure to meet the embodiment of evil. Now I appreciate that sort of humour and a relationship formed. Scott was one of the many good guys I met in IBM and over the next few months a settlement was brokered. I was offered a role with the then forming Institute of Knowledge Management. I'd been looking for a new job in parallel and at the Nice meeting of the IKM I had to make a choice between being a Director in the IKM with responsibility for Europe and Australasia and joining Ernst and Young to head up marketing for their UK services business. The IKM members companies, many of who I knew were keen for me to stay, and for the first time I was allowed to talk to Larry Prusak without him being accused of betrayal and all in all I made the decision to stay.

The IBM Story Group and the initial engagement with DARPA

Now just before this John Thomas of the Hawthorn Labs in IBM had pulled together various groups across IBM who were working with narrative. It never had official sponsorship and was a more or less permanent skunks works project but it resulted in some key developments and relationships. Cynthia Kurtz was working for John at that time, and doing a huge amount of theoretical and practical development. A parallel CHI group with Wendy and Tracy were also involved and meetings of that group were one of the highlights of my life. Cynthia and I got off to a rocky start but the working relationship started to build.

Our work had independently come to the attention of [John Poindexter](#) and I still remember our first meeting. I had been summoned to Washington by the CIA (who were IKM members) and met a charming old man with an interest in the [novels](#) of Patrick O'Brien, one of my great loves and we were well into our conversation before I saw the pictures of him with Ronald Reagan as NSA. I learnt a lesson that day about knowing people, rather than images painted in the press. I then got invited a beauty

parade in a hotel out near Dulles Airport. A diverse group (including some from the IBM Labs with a semantic bent) were assembled, and thrown together for two days to see what came out. I was the only person advocating that narrative could be used for weak signal detection and conflict resolution. Everyone else saw it as a tool for communication. Despite some IBM opposition, we got a contract on a part of the Genoa Programme run by [Laz](#) of Veridian systems. As it turned out John had also come across Cynthia's paper on StoryML and so we started to work on the project together with a narrative focus. In parallel with that Laz started to get interested in complexity and flew up to see me in Boston. After a day of deep conversation I was hiked down to Washington again to present Cynefin to John, whose first response was *Well that explains fifty years of failure in American Foreign Policy*.

So we had a project and it came to a successful conclusion next door to the Pentagon on the day before 911. We proved the value of a narrative technique, situational archetypes as well as use of the Cynefin framework to enable richer conversations between people from radically different backgrounds. I flew back to the UK that night and picked up the news of 911 on the car radio and then Sky News at Warwick University where I was meant to be giving a keynote to a group of IBM Salespeople. After that life got interesting and I started to spend a lot of time in Washington. Aside from John and Laz that period saw key relationships form with Tom Armour (sadly no longer with us) for DARPA, [Dennis Gormley](#) & [Steve Sickels](#) plus SRI's [John Lowrance](#) & [Tom Boyce](#).

From the IKM to the Cynefin Centre and Cognitive Edge

Sometime during that period Cynthia fell foul of what was called in IBM "roadkill". The term means that you lost your job as a result of some bureaucratic process change, indifferent to individual ability. As people said, its not personal, you are just roadkill. To me this indifference was one of the worst things about the organisation. Either way, in their infinite wisdom someone highup in IBM decided that contracts would only be renewed in Research for people with full PhDs from designated named Universities. Unfortunately Cynthia's contract was up for renewal at that time and she fell victim, despite the support of John Poindexter himself and protests from me and others. Fortunately the IKM was in a good state at the time and I was allowed to hire Cynthia as a contractor to work with me on the complexity and narrative strands of the Institute's programme. Which came to include the whole DARPA research contract. It was during that time that we worked on the social constuction of the Cynefin Framework and incorporated Cynthia's "seeing eye".

Shortly after that the IKM, despite being successful, fell foul of some heavy IBM politics and was finally reorganized by being collapsed into a single thought leadership body without focus or leadership. It was called the Institute of Business Value or some such thing, and it became evident very quickly that there

was no place for anyone who was not politically correct. I managed to get some funding to create the Cynefin Centre (the first name was CAROC by the way) and took Cynthia with me. After about a year, sustained by the DARPA work we became an *Emergent Business Unit* with funding and staff! That was when Mike Stephenson came on board and Steve Bealing (Now CEO of Cognitive Edge) along with Sharon Darwent and Warwick Holder. We also had some supporters elsewhere in the business, such as Rita in Italy and Shawn Callaghan in Lotus Australia. That was a good year and we did some great work, including getting training programmes up and running and developing a body of material. The DARPA programme also produced some good output (continuing links with Wendy and Tracy in Hawthorn). But it was too good to last and as 2003 drew to a close we were politically shafted (I'll tell the story of that one day). For me it became irrelevant anyway as for the first three months of 2004 I had compassionate leave while I cared for my parents in their last few months. They died within 10 days of each other just short of my 50th Birthday. When that came round IBM offered me an early retirement package which I took and set up on my own (still with Cynthia) under the umbrella of our DARPA leads. Then about a year later Steve agreed to leave IBM (without him the company would not have been viable) and we set up Cognitive Edge. There is a much bigger tale to tell there involving the Singapore Government, the Arlington Institute and many others but I will save that for another time.

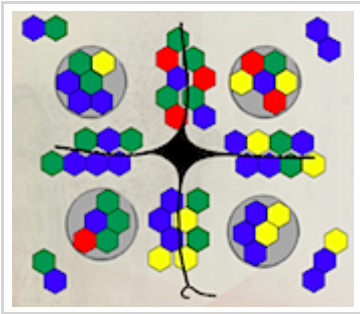
Moving on

OK, so that has the history out of the way, tomorrow I will return to the origins of Cynefin and deal with the question of categorisation and social construction.

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<http://cognitive-edge.com/blog/entry/3454/part-four-origins-of-cynefin>

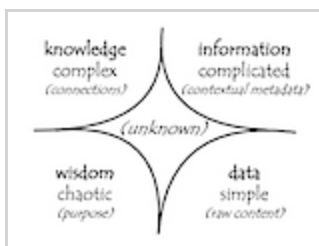
The Origins of Cynefin - Part 5




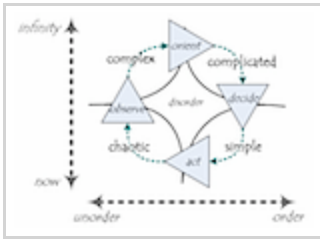
The Cynefin framework is frequently (and legitimately) used as a categorisation model around the four domains of simple, complicated, complex and chaotic. Working at this level it allows people to understand the difference between the four domains, the decision models associated with them and the necessarily limits of *best practice*. Shawn Callaghan of Anecdote produced a [four minute explanation](#) of Cynefin considered as a categorisation model which gives a good basic introduction and has proved popular. For a lot of users that level of use is more than good enough to produce results. Adding in disorder and the catastrophic boundary adds meaning when a more sophisticated approach is needed but it's not always necessary.

At its most sophisticated, and in full operational use, Cynefin starts life as a sense-making framework not a categorisation model. In a sense-making the framework emerges from the data, while in categorisation the model is pre-given. The advantage of categorisation is that it is efficient, the danger is that if the context shifts then it may result in significant category errors. Now this is best understood by describing the process by which it is constructed using the narratives of an organisations' past perspectives and possible futures. The domains, and the boundaries between the domains are defined by narrative as that is the primary sense-making mechanism by which we create common understandings; it has boundaries because without boundaries humans will not distinguish between different types of action and analysis. We are not good with gradients.

A brief aside on illegitimate approaches



Cynefin is even drawn as a cross from time to time, with the occasional token inclusion of a circle. Most of the time I live with this although every now and then we get absurdity. The danger of making things "fit" regardless of loss of meaning is well illustrated by the two illustrations that flank this paragraph. I didn't know whether to laugh or cry when I saw the allocation of data, information, knowledge and wisdom to the four domains. Managing in any of the domains without data would be absurd, but I suppose confining wisdom to randomness says something  about the judgement of



the author.

The misuse of the OODA model is equally foolish. The OODA cycle is all about making decisions, and decisions have to be made in all domains. Looking at how the OODA loop would apply in each domain is interesting, in fact I will make it a future post. Observation of what? Orientation to what? It will differ

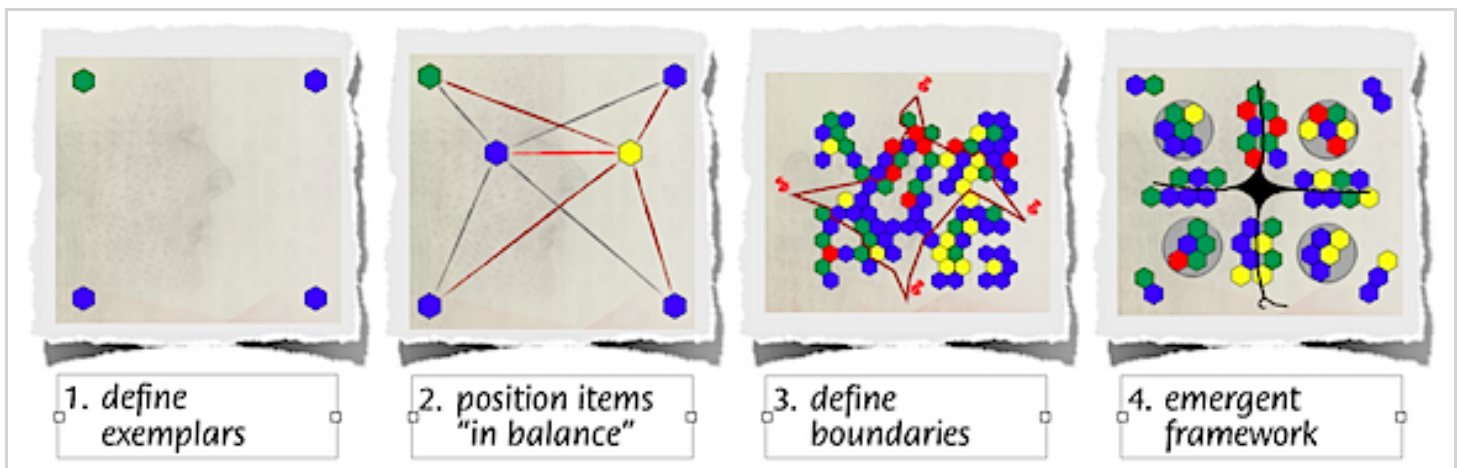
by domain. Looking back it was those two examples that finally shifted me from irritation to sympathy with the consultant concerned. The examples display a level of profound ignorance of the fact that Cynefin is a framework that allows you to understand different types of system (ontology) not different processes or *things* which may be common across all domains albeit with different attributes.

The desire to create neat ordered and tidy structures (in the case of this author even the curves have been regulated), to cross map any model you like the look of onto every other model is a part of the tendency to universal solutions that has been all too common in the last few decades. It's the sign of a failure to understand complexity and more importantly the aesthetics of uncertainty.

Enough; lets get back to the real thing, not shadows on the wall of a pit from a flickering candle stub.

Social construction of the Cynefin framework

Over the years a range of techniques were developed to allow the boundaries in the Cynefin framework to emerge from the data. The one which (for me) is the most authentic is illustrated below. There are simple approaches which involve some social construction but are primarily categorisation based such as the [four tables method](#). This is used in a lot of strategy and conflict resolution work. Long term use, and its instantiation as part of a new *language* of strategy within an organisation requires a bit more investment of time and effort upfront; although its a lot less than most of the approaches that characterise the systems dynamics period and critically avoids reductionism.



This method, known as *four points* involves a pre and a post process and can be summarised as follows:

- **Pre-process:** generation of several hundred examples of exemplar narratives of key moments in the organisations own history, alternative histories and imagined futures. This can be done using another method [Future Backwards](#), but it can also be achieved by brainstorming or, best of all, by a broad capture of identity micro-narratives using SenseMaker®.
- **Workshop:** (virtual or physical), can be parallel process with subsequent synthesis
 1. A representative group are asked to select the four exemplar narratives that define the extreme states of the Cynefin framework (although the framework is not explained). Instead the language used is along the lines of *the case where the right answer is most self-evident; that where experts or due process should be able to produce the right answer; the case where with the benefits of hindsight we would all know what to do, but not in advance; the most chaotic/random/unexpected event.* These four exemplars are then placed on the extreme corners of a large workspace, ideally a vertical one with lots of natural light and space for people to move around. In a virtual environment this can be done through polling.
 2. That complete, each subsequent narrative is placed onto the work space in dynamic tension between the four corners and also with all the other narratives. This can take time and should not be rushed, people should be allowed to modify the narratives or create new ones as they occur to them.
 3. Once all the items are allocated then boundaries are created using ribbons Do not under any circumstances allow people to draw them with a pen, in fact I remove all marker pens from the room before this stage to remove temptation from the alpha-males, or the even more scary alpha-females that now hover around the glass ceiling in many a corporation. The boundaries are drawn around those items which are unambiguously in one of the four states described in step 1 above. We can now see disorder, and as illustrated, it is normally a very large domain at this stage. Our objective is to reduce disorder to allow an authentic and ontologically aware decision making process so we move onto the next stage.
 4. The items clearing in the domains are now split into two, those which can define the space and those which are extreme examples (and negative) The extreme items represent a boundary zone of the domain, back into disorder. Some readers will know that these are known as the *illegitimate extremes*. That complete the group now proceed to bifurcate, trifurcate or quarter the items in disorder to create the defining boundary objects between the four major domains. This over we have a framework, the boundaries of which have emerged from the data and which allows us to define domains and boundaries in language that is understood within the organisation, as it is comprised of the identity narratives of that organisation. This contrasts with other strategy models and processes which are defined in abstract ways, or using case based examples, in the main from US manufacturing industry.
- **Post-process:** Now the model is in place it can be incorporated into training programmes so that it becomes part of the common discourse of the organisations: *Hang on, its like these three examples and they are all complex, so we need to create safe-fail experimental probes not analyse,*

or *Its a dead ringer for this cluster so why aren't we simply applying best practice?*. Human language is intimately linked with and dependent on common narratives, and the naturalistic approach that underpins Cognitive Edge approaches reflects that. Once established the populated framework can also be used to test for cultural affinity, show different silos how their different perception of the domains is creating conflict or misunderstanding etc. etc. We now have the advantages of a categorisation model, but if the model starts to stretch we can always re-set using the emergent process, moving from exploitation to exploration then back to exploitation again.

Cynefin, especially coupled with the ability of SenseMaker® to provide continuous monitoring and feedback is a major new approach to strategy that is more dynamic than its predecessors, but which legitimes those predecessors within boundaries.

The first full roll out of the above method was in a government workshop held over several days in Singapore. I persuaded Cynthia to travel for the event and we worked together to refine the approach. We also used Cynthia's great invention (although I claim the [origination](#) of the name) of [butterfly stamping](#) as a pre-process. One further process we used during that Singapore workshop was to get people to create a metaphor based description of each space. That worked well but I didn't really take it forward. However the idea was planted, and it now forms a part of new work on metaphor based command languages of which more at some future date. The other major development which came from this approach was the question of sub-domains, and with that the idea of Cynefin Dynamics which I will deal with tomorrow.

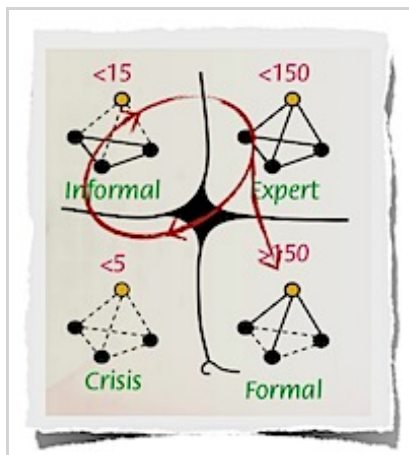
Why this method is important

One of the general issues that emerged in discussions between myself and Cynthia (along with others) as part of the seeing eyes interaction (of which more in tomorrow's post) was the question of boundaries. In a very real sense the method above is a result of that fruitful debate. Boundaries are necessary for human sense-making. If we gave people a spectrum from chaotic to stable then people would settle in the place of their most comfort. If we create boundaries, then if we can create a first step which involves a choice as to which side of the boundary we are (backed up by narrative based definition which is amenable to coherence based evidence). With that done it is a lot easier to get people to accept that in a particular context they should do something they are otherwise uncomfortable with. By socially constructing the boundaries from an open space we enable people to see things in a novel and interesting way, something that imposing a two by two categorisation framework would never achieve.

Original URL:

<http://cognitive-edge.com/blog/entry/3453/part-five-origins-of-cynefin>

The Origins of Cynefin - Part 6



We've now reached the penultimate episode in this series (and don't worry Dumbledore won't die, this is not *The Hero's Journey*). It will complete the key developments on the framework during the IBM period. Tomorrow I will talk about more recent changes and future directions. The illustration to the left shows all three aspects I want to talk about today namely the tetrahedrons, boundaries and dynamics. All of them are interlinked and all three are critical to understanding the sense-making, as opposed to the categorisation applications of Cynefin.

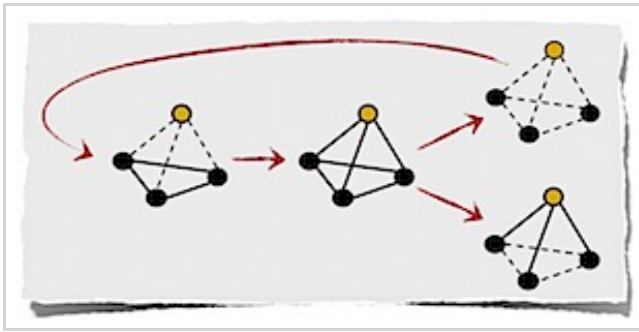
The model show represents the *Dynamic Learning* dynamic which appeared in one of the first Cynefin articles namely [Complex Acts of Knowing](#) although it is shown here with the addition of [natural numbers](#) in a more recent form. The point about this dynamic is that it shows that situations and actions flow within the Cynefin framework, they are not static, but as they move between the domains the nature of our mode of interaction changes.

That particular example relates to the way in which learning and knowledge creation happens in a company. Creation starts in the complex domain, largely in informal networks which often transgress the boundaries of the formal. When a body of knowledge becomes key to organisational performance the constraints on permitted variations are increased and the level of codification increases to allow diffusion over a wider group (this is the CoP space in KM). A sensible organisation will ensure that they create a cyclical pattern of destruction (a shallow but not deep dive into chaos) by relaxing all constraints, which returns people and materials to the complex domain. Only a small amount of stable material should transfer to the *Simple* or *Known* domain. I originally created that dynamic as an alternative per

The tetrahedrons as movement between domains

I've shown that particular dynamic as it allows me to talk about the key elements and the role of the tetrahedrons in allowing some codification of the principles of taste without creating a recipe ([that](#) metaphor again).





Interesting by the way that Cynthia rightly [talks](#) about *two great tastes that taste great together* when she talks about how her ideas on confluence came together with Cynefin. I will also confess (and as a penance I confessed at all Cognitive Edge training courses for over three years) that I didn't initially understand the potential of her *Seeing Eye* model when it first came

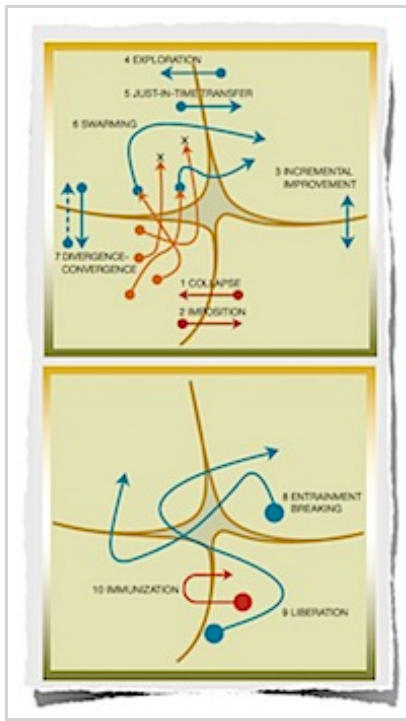
into play. I could see it had potential but I didn't fully get it until I used it in practice well after the first article using it was published. I understood its true value when I realised that we could use it to allow people to generate their own contextual solutions, rather than bringing in one from outside (with all the cargo cult dangers that go with consulting).

So lets see how that works. If we look at that above dynamic just in terms of the tetrahedrons you will see what I mean, with the client we show the dynamic then go through the following stages using the tetrahedrons as a guide.

- To enable the partially constrained flow of ideas that is necessary in the complex domain we need to ensure that there is good networking and connectivity within the organisation but without central control. Cynthia now calls this *pure meshwork, undirected but coherent*. I like that it sums up the domain well. Other techniques like [social network stimulation](#) also work well here. Executives need to stand above the system but not engage with it.
- As the coherence starts to **clump** (more about that word in a future post) then we can shift it from the informal to the formal through recognition or the imposition of structure and process. To use Cynthia's words we now have a *hierarchy and meshwork conflicted but harmonious*. This will mean it is easier for the organisation as a whole to use it, increased codification increases the potential of diffusion to quote Boisot. However it will mean we have to accept a higher cost of maintenance
- As a matter of policy a pattern of destruction to enable rebirth should be built into the system, that means after a period of time we should break up the formal group to allow new knowledge to be created (breaking all links allowing new links to form), however for some aspects of the work it is no longer necessary for a network to be maintained, we have codified to the point where process is more important than people and rightly so for many things (how to process a cheque in a Bank for example). Again to use Cynthia's words we now have *pure hierarchy, directed and coherent*.

So what we do here is to show the pattern to the client, then ask how in their organisation they would break some connections and build others. In effect with have a handbook of tastes, but the way those tastes are used is contextual to the organisation itself.

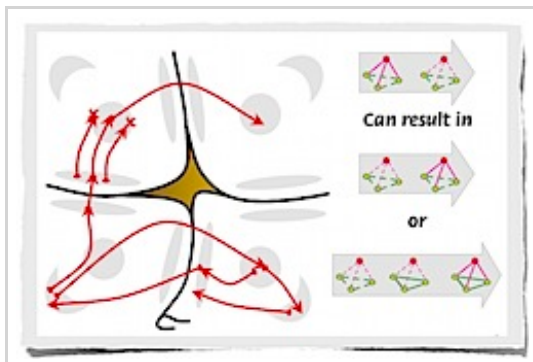
Cynefin dynamics



Now there is more to Cynthia's confluence model than that. You may also have noticed that I missed out on her description of chaos as *isolation, undirected, incoherent*. That is partly because the shift is a shallow dive not a deep dive. However more on that in my final post in this series tomorrow. I want to look at the confluence model in more detail then.

Of course that is not the only dynamic, I used it to illustrate the point and one of the values of the tetrahedrons. In our work with DARPA we identified a whole range of movements between the domains and I have pulled out the two illustrations to demonstrate them. Some of the names became more creative over time - collapse became the Masada gambit for example but they all stand to this day.

That said, the introduction of subdomains which was only really possible after we created the four points method for construction described yesterday, allowed more sophisticated representation.



I've shown one of these to the left. In this case we are dealing with two alternative approaches to crisis management. The flow between chaos and simple in effect covers the *collapse* and *imposition* dynamics of the earlier model. The movement from chaos to complex to ordered on the other hand was earlier described as *swarming*. You will also see in this illustration the use of changes in the connections of the tetrahedrons to

illustrate what is happening at each stage.

Now there are more that could be shown. The real point is that movement between domains, in effect crossing or breaking boundaries, is a very important aspect of sense-making using the Cynefin framework. It's far from a simple categorisation model, it's a framework for enabling a wider understanding of change in the organisation and critically the creation of a language of change within the organisation. It is also one that legitimizes many different approaches, to use language I am never comfortable with - its not a model, its a framework but really its a meta-model, a way of understanding models and approaches. More on that tomorrow.

Boundaries

Now the boundary issue is an important one, and if you check out the comments on yesterday's blog you

will see a different of perspective (I think not view) between myself and Cynthia. Jan Roodt added a wise comment there (which means I agree with him!):

“ *Every system has a boundary. It may be porous, and indeed a complex system must have "ports" or "dendrites" to interact with the environment. Context is a function of boundaries. Personally I do not like gradients, because soon everything is relative (and nothing has position then) and when that happens anything goes and I do not get closer to solutions either. With ports and dendrites there is no crossing of boundaries, it is what helps the system interact and it can be truncated or extended or narrowed or widened in specific ways to allow for the process of experimentation, which is also core to sense-making.*

I also made a linked comment

“ *The danger with boundaries is when people use them to exclude "the other", to live within boundaries rather than to transcend them. The point of the Cynefin model is to allow people to live on both sides of the boundaries and to behave appropriately depending on context*

Now in order to do that we need to have a more complex or nuanced view of boundaries. At one point Cynthia and I experimented with different physical models by way of a metaphor. We talked about broad rivers (you can cross anywhere but you know you have crossed as your feet are wet) and chasms (you have to build a bridge or go on a very long walk). We also talked about permeable, semi-permeable and porous boundaries. Of course the boundary between simple and chaotic is a cliff, you fall off it and recovery is costly. However all the other boundaries can be defined in different ways.

Interesting there was less success with that than the domains themselves. However I think that is time to bring those concepts back into play, so that is one for the future.

Right, we are now more or less up to date. Tomorrow I want to complete the picture and reflect on the future.

Original URL:


<http://cognitive-edge.com/blog/entry/3452/part-six-origins-of-cynefin>

The Origins of Cynefin - Part 7



It's time to bring this series of seven posts on the origins of Cynefin to a close. I started it a few months ago when I needed to update an old version of the model to cover off a post on knowledge sharing across silos. Over the next few months I kept notes, but was finally prompted to complete the series by Cynthia's excellent post on her confluence model (the inheritor of the original work she contributed). In parallel with this I have seen an increasing number of interesting uses and citations of the model; this interesting [post](#) on the application of the model to humanitarian response being a good example. I've also seen some bad ones and have had to be firm in preventing the name *Cynefin* being used for something wholly other.

In my last post I took the model from its form in *Complex Acts of Knowing* to the version that arose with Cynthia's collaboration in *New Dynamics of Strategy*. The major changes during that period was the addition of the tetrahedrons (or seeing eyes as Cynthia calls them), the introduction of additional dynamics (over and above the Dynamic Learning Cycle which came from *Complex Acts*) and some discussions of different types of boundaries. That included methods for the social construction of Cynefin so as to create the distinction between sense-making frameworks and categorisation models. That social construction and the emergent nature of the boundaries to my mind mitigates or possibly removes the dangers of boundaries preventing movement; the very nature of the Cynefin framework is to allow people to move across and through boundaries, but using the transition to realise that they need to think differently.

So what happened next? Well Cynthia and I continued to work together, but that work focused on our Singapore project and V2.0 of SenseMaker® Explorer. The narrative side of our  work also continued

together with several experimental ideas on networks to which I want to return when I have the bandwidth to cope. The defining article of that period is another Kurtz/Snowden piece namely [Brambles in a Thicket](#).

Despite that focus (as we were building Cognitive Edge) I continued to work on Cynefin in presentations and workshops, and also in extended discussions with various academics who were starting to adopt it. This is the period where citations go up rapidly. Key to what happened next is caught in this extract from *New Dynamics*.

“ People are often confused by the apple-orange nature of the four Cynefin domains: they say, “Why not known, knowable, somewhat knowable and un-knowable?” or, “Why not simple, complicated, complex and chaotic?” The distinction is intentional. The Cynefin framework is a phenomenological frame- work, meaning that what we care most about is how people perceive and make sense of situations in or- der to make decisions; perception and sense-making are fundamentally different in order versus un- order.

....We are currently engaged in further conceptual and experimental work to more strongly de- velop the separation of ontological from epistemo- logical aspects of the framework in order to root the framework in a variety of scientific disciplines while maintaining the essential interweaving of ontology and epistemology, which appears to be an essential aspect of human sense-making in practice

The first paragraph of this quotes reflects the agreed position at the time, the second reflected concerns about consistency. Now one of the dangers of a training in philosophy is that if you find a paradox you want to resolve it by changing the game; you are trained to create coherence intellectual constructs. As a result I put a lot more effort into resolving the ontological (the way things are), epistemological (the way we know things and make decisions) and the phenomenological (the way we perceive and socially enact meaning) differences. You can see that the early resolution was to say that model was both ontological and epistemological and the reason for that was phenomenological. Now OK, it sounded good at the time but I started to get some bruises trying to defend it, in part I think because I was not very happy with it in the first place.

The net result was published for the first time in [Multi-ontology sense-making: a new simplicity in decision making](#). This was the first time I removed known and knowable, and replaced them with simple and complicated in a published version of the model although it was not the first time I had used them

in discussion/presentation. That meant that the model was now primarily a way to make ontological distinctions. That worked well with the new definition I had created based on constraints between the three ontological states of **order** (system constrains agents), **chaos** (agents unconstrained) and **complex** (agents and system co-evolve). It also gave new life to cynefin dynamics which could now be described (still using the tetrahedrons) as constraint relaxation or tightening.

It then followed that each ontological state, should be matched with an epistemological response. The social construction of the model created a common phenomenological perspective with enough coherence to enable decision making. From that point the model was consistent to an academic audience, and it also made more practical sense.

One of the things it allowed me to do was to talk about the way in which ontology (the way things are), epistemology (the way we know things) and phenomenology (the way we perceive things) interact. The way I did this is to ask people to image three discs that constantly grind up against each other. (see picture at top), each disc representing one of the *ologies*. In an ideal world all three would be aligned, but in the real world they are always misaligned to some extent. The more we move to the ideal (or the pseudo-mystical) the more we allow the disconnects with reality to emerge. Now for me this was wrong, for others reality seems an optional extra.

It was this model that formed the basis of the HBR article (written with Mary Boone) with the exception of the actual representation. We ended up there with a three dimensional picture with a rather good cliff. Its OK, but after that I stayed with my four simple lines and a squiggle! The other aspect of the article was the reclaiming of the whole known-unknowns labels of part 3 and a more comprehensive and tabular list of behaviours for Leaders.

Futures

It's interesting times as they say, the use of the framework is increasing and in the main for the good. That will generate some variety and also new material and experiences. For me, I am working on a more nuanced model of the complex and chaotic domains that may be a new model, or may modify the original. With the increasing capability of SenseMaker®, methods to use large groups to construct the model on line linked to associated formal monitoring methods will allow automation of its modeling functions. More work is also needed on unordered, which has positive uses as yet to be described. As with its whole history this will end up as a fluid mix of theory and practice: Praxis after all makes perfect.

Original URL:

