

Addressing communication silo's using complexity techniques and Social Network Analysis.

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Abstract

The Information Management (IM) division of a large financial institution in South Africa was struggling with functional silos that prohibited their ability to leverage the strengths of their different areas of specialisation. As part of the establishment of a Knowledge Management Center of Excellence (KM CoE), a project was implemented to use Cynefin methodologies (specifically Community Social Network Analysis (SNA) and Cynefin Categorisation) to investigate the root causes for this problem, and to attempt to address it. One year later, a follow up SNA was completed to determine the impact of the initial SNA and the initiatives that followed.

The results of these two initiatives were compared by an independent team of consultants.

The 2004 SNA confirmed the existence of silos in the environment, and further more provided a view of where the specific issues were. The Cynefin categorisation indicated that perspective bias differences were part of the underlying reason for the perpetuation of the silo behaviour. The two result sets provided information that allowed the team to design interventions targeted at specific problems.

The 2005 SNA results showed definite improvements in the network, with the silos still in evidence, but with much more cross-silo collaboration taking place.

Keywords: Social Network Analysis, Financial Services, Dave Snowden, Perspective Bias, Cynefin Background, Cross-silo, Community

1. Industrial Context

In 2001 Knowledge Management (KM) was selected as one of four strategic drivers of Intellectual Capital in one of the 'big four' banks in South Africa. It was later identified as one of twelve core capabilities that the organisation would be focusing on as part of their strategy, and was also chosen as one of 6 core capabilities that needed to go through a process of accelerated development to ensure sustainable success.

A strategic decision was made to initially focus on the creation of a central KM capability in the group, not the implementation of KM throughout the group. A KM Center of Excellence (COE) was established within the Information Management (IM) division, focusing on two aspects of KM:

- Technology enablement and;
- Mobilisation and consulting, which is focused on Knowledge strategy formulation and the 'human' aspects of KM.

The focus of the Technology Enablement area has been on the centralization of the content management capabilities in the group, as well as establishing and entrenching content management governance throughout the group.

The mobilisation and consulting team of the newly created COE, assisted by IBM, initiated the development of their service offering, governance framework and roadmap going forward. An overarching Knowledge Strategy was created, which is currently being implemented through various initiatives that were identified as part of the strategy formulation process.

The KM methodology of choice for the organisation is Dave Snowden's 'Just-in-Time KM' (Snowden 2002a and 2002b), which exploits the dualistic nature of knowledge (knowledge is simultaneously a 'thing' and a 'flow'). This methodology is primarily based on three heuristics:

- Knowledge can only be volunteered, never conscripted
- I only know what I need to know when I need to know it
- We always know more than we can say, and we always say more than we can write down

These heuristics led to a focus on the following KM elements:

- Context management: Social network analysis/stimulation, expertise location, communities, workplace design, knowledge culture mapping
- Narrative management: Narrative enquiry, narrative database, Patterning, Story, Knowledge transfer processes
- Content management: Document management, portals and search/taxonomies

Proof of concepts for most of the CoE's service offering has now been completed, including two community SNA's within the bank's IM division. These initiatives have had a positive impact on the environment, and they led to more and more requests for assistance flowing into the KM CoE from the rest of the group.

This case study will focus on the projects that were run in the IM division of the bank, as part of the process of establishing the KM CoE.

2. Problem Statement

The IM division in this bank comprises several largely independent sub-divisions. The main focus areas of the division include maintaining and mining an international award winning data warehouse and providing customer analytics data to the rest of the group. Because of the highly specialised nature of the different sub-divisions, silo behavior was very prevalent in the environment. This led to many lost co-operation and innovation opportunities.

A need existed to better understand the nature of the network ties between these sub-divisions to enable the KM team to design interventions to start breaking down these silos and to increase collaboration in the division.

The project also served as a proof of concept for Social Network Analysis and the Cynefin Perspective Bias methodologies, which are components of the KM CoE's service offering to the rest of the group. To limit scope, it was decided to focus only on network connections within the formal communities (internal sub-divisions) within the IM division.

Learning Objectives:

- Explore the advantages and pitfalls related to the application of Cynefin techniques in large corporations
- Evaluate Social Network Analysis and its applications
- Determine the value of Cynefin perspective bias as used in conjunction with an SNA

3. Approach

Our approach involved the comparison of two sets of SNA results data that were collected during two SNA initiatives run exactly 12 months apart. The SNA graphs, as well as the statistical data were compared by the KM project team.

The KM team analysed the results from the Cynefin perspective bias initiative in consultation with Dave Snowden.

Subsequent to the initiatives mentioned in this case study, the project team conducted interviews with key stakeholders to formulate an articulation of the value of these initiatives, as well as to gain a view of how they've experienced participating in a Cynefin project.

4. Case Analysis

The methods used in this case study are based on the Cynefin methodology, provided by the Dave Snowden's Cynefin Centre (for more information visit <http://www.cynefin.net>).

In short, the Cynefin methodology is based on social complexity principles, and focuses on Narrative, Networks and Sense making. It is built around a sense making framework, which distinguishes between ordered and un-ordered systems.

The project team used the Cynefin Community SNA method, where the SNA is conducted between ‘identities’ (in this case, formal communities) and not individuals. According to Snowden (2005) this approach minimizes the risk of individuals deliberately influencing the results according to their own agendas.

An initial SNA was conducted in May 2004 with a follow up SNA planned for May 2005 – this would enable the team to determine the impact the SNA and other subsequent interventions had on the environment.

As a result of the initial SNA, a Cynefin Perspective Bias exercise was run in the environment to investigate the communication disconnect between communities, which were more technically orientated vs. communities with a strategic focus. The SNA also showed that many of the communities didn’t know what expertise existed in other communities, which led to a pilot project, using an individual SNA (Cross, Parker 2004) to identify experts in one of the communities in the IM division.

4.1 Comparative results – 2004/2005 Social Network Analysis

It was decided early on in the process to focus the SNA on formal communities only and to conduct it across 4 dimensions – learning, meaning, influence, and warmth. Questionnaires were designed and sent out to the formal community leaders and the communities were given the choice of electing a proxy to complete the questionnaire, or to complete it as a group. Many communities chose to elect a proxy, which in the end proved detrimental to the process, as the results were invariably skewed according to the proxy’s perspective. During the follow-up SNA, communities only had to complete the questionnaires as a group during a facilitated session – this eliminated the problem experienced during the first SNA.

The project team collected and collated the results, which included capturing the questionnaire data, generating statistics (cohesion distance, density and degree centrality) and network diagrams using UCINET. It was decided to focus only on meaningful interactions; the data was therefore dichotomised on values greater than 4, to ensure that only high ranking interactions were shown in the graphs.

Once the data was collated and all the diagrams drawn, sense-making workshops were held with three groups, being the:

- Project team – objective analysis of the diagrams and statistics based on theory and patterns only;
- IM Executive team – subjective analysis (EXCO perspective) of diagrams, statistics and patterns identified by the project team;
- IM staff (proxies from each of the communities) subjective analysis (staff perspective) of diagrams, statistics and patterns identified by the project team;

We early on discovered the importance of getting input from all three these groupings on the SNA outputs, as it provided us with valuable perspectives about the reasons for the existence of many of the patterns in the graphs.

In the following section, we will look at the comparative results of each of the four dimensions in detail.

The following statistical measures were used in this study:

1. Network density – indicates the robustness of a network. The density figure reflects the number of connections that exist out of 100% possible connections in a network. More connections means quicker and more accurate information flow, however, too many connections may have a negative impact on efficiency in the network
2. Degree centrality – may indicate influential nodes in the network
 - i. In-degree – number of arrowheads coming into a node
 - ii. Out-degree – number of arrowheads coming from a node
3. Network cohesion or distance – indicates the ease with which a network can connect. Distance is shortest path between two nodes. Aggregate measure at network level reflects the average distance between all nodes in the network.

The names and acronyms for several of the communities changed during the period between the two SNA's. The nodes on the network diagrams are color coded to indicate related communities.

2004 Communities	2005 Communities
IMOSAD	SAD
IMOIB	IB
IMODWM	ETL
KMMCS	KMCS
SIE	BDM
BCE	PO
BPM	MIS
BI	BSC

Table 1. An indication of community name changes from 2004 to 2005

4.1.1 Dimension 1 - Learning

Question: Most of us obtain information and / or learn from various groups of people within an organisation. How much does your community depend on each of the following groups or communities for information and / or learning?

Results focused on the top two values on the response scale ('Dependent & Highly dependent') – i.e. meaningful ties

Figure 1. Comparative results: Learning Dimension

The 2004 SNA results for the learning dimension was particularly concerning, as several of the communities were completely isolated. This meant that some of these communities were completely cut off from the rest of the network, implying that the rest of the network was unaware of their value, and therefore they were being marginalized.

Overall the 2005 SNA results show a marked improvement: there are no more isolates, although one or two of the communities (e.g. the personal assistants (PA)) are only connected to the network through one other community (EXCO – the community they report to). Network density has increased significantly, from 12.86% in 2004 to 28% in 2005. This indicates that information flows more effectively through the network. Cohesion has also increased from 1.83 to 2.53, which seems to indicate increased robustness in the network.

In both the 2004 and 2005 results a strong triad relationship is clear between the IM Operations communities - IMODWM (ETL in 2005), IMOIB (IB in 2005) and IMOSAD (SAD in 2005). These communities together form the operational hub of the IM division, responsible for the development and maintenance of the data warehouse, as well as the provision of critical reports to

the rest of the organisation. The strong collaborative relationship between these three communities is clear across all the SNA dimensions, and together they form a highly influential hub in the network. What was concerning in 2004 is how far the EXCO community was removed from this operational hub. The 2005 results show improvement, with a link to the hub via the IMA (architect) community. This is a very positive development, as it allows for the IMA community to translate technical information into a language that EXCO can relate to.

These improvements are largely due to initiatives implemented by the managers of the relevant communities and the KM team based on the 2004 results. Brown-bag lunch sessions (termed IM-Talk) are now held on a monthly basis with the main purpose to provide an informal knowledge sharing platform.

Another reason for the improvement in this dimension is concerted effort from the team leaders to encourage knowledge sharing between their respective communities. Having been confronted by undeniable proof of where their teams are in the network, they had a better idea of where to focus their energies. A good example is the IM Architecture (IMA) community (circled on the diagram). In 2004 the IMA community was a learning 'sink' i.e. they many outward directed connections (they went to other communities for learning), but no incoming connections (none of the communities came to them for learning). In spite of being very centrally placed in the network, they were like sponges – learning from many other communities, but never passing on the knowledge.

The manager of the area put specific initiatives in place to address this issue, including adapting the performance measures for the team to include specific measures to ensure that all deliverables were distributed to other communities, and that these deliverables were understood by relevant parties. As can be seen by the 2005 results, these initiatives had the desired effect, with IMA now an even more central community in the network, and a significant number of incoming arrows indicate that many of the other communities are now learning from them.

A negative pattern in the 2005 results that needs to be addressed is the high dependence on contractors and consultants (CC) for learning. The KM team is currently developing knowledge transfer processes to ensure that critical knowledge is transferred to permanent staff members before the consultants leave the environment.

4.1.2 Dimension 2 - Meaning

Question: When you come across a work-related problem which you cannot make sense of, how likely are members of your community likely to turn to each of following communities or their members for assistance?

Results focused on the two top values in the response scale ('Likely & Very likely') – i.e. meaningful ties.

The meaning dimension is an important dimension as it shows the network ties for a deeper level of interaction than simply information exchange. This dimension indicates collaboration and joint sense-making between communities. The 2004 results showed an isolated sub-network; what was concerning about this was that the Executive (EXCO) community, who are the main decision makers in IM, was part of this sub-network. Once again, this community was completely cut off from the operational hub. These results were corroborated by a very real issue in the environment around strategy formulation and communication. Many of the employees felt that they weren't included in strategy formulation, and therefore the Executive found it very difficult to obtain effective buy-in into their strategy.

Based on the results of the 2004 SNA, the Executive team focussed on adopting more of a bottom-up approach to strategy formulation. Subsequent feedback from other communities confirmed that

their experience of the strategy formulation process was a great deal more positive in 2005. The 2005 SNA results showed a definite improvement in the network on the meaning dimension. Although the network density is still quite low, all communities are now connected, and many of these communities now feel comfortable to engage with the EXCO community when they need to make sense of work issues.

Figure 2. Comparative results: Meaning Dimension

Another community that shows marked improvement is the SIE community (the name of this community changed to BDM in 2005, circled with a dashed line on the diagram). This community was established in 2004 to promote and sell the IM division's service offering to the rest of the group. The 2004 result indicated that they were very much on the perimeter of the network, only connected to the rest of the network through one other community. This was concerning, as they needed to have a clear view of the roles and services of all the other communities in order to fulfil the role they were created for. In 2005, we can see a dramatic improvement in their positioning in the network. This is once again due to targeted actions initiated by the relevant community leads.

As in the learning dimension, high dependence on Contractors and Consultants (CC) remains a problem in the meaning dimension.

4.1.3 Dimension 3 - Influence

Question: Our actions and decisions are often influenced by others. How much impact does each the following communities have on the work and decisions of your community?

Results focused on the top two values in the response scale ('Great & Very great') – i.e. meaningful ties

Figure 3. Comparative results: Influence Dimension

As in the previous two dimensions, most concerning pattern in the results for the influence dimension was the positioning of the EXCO community in the network. As their main role is to provide strategic direction, their positioning seemed to indicate that 1) they weren't being influenced by many other communities in the network, i.e. they didn't consult their experts enough, and 2) they had very little influence over the rest of the network.

The most influential communities in the network were the three operational communities. CC – contractors and consultants was also an influential community, which was concerning from a risk perspective as this community is made up out of non permanent staff members. Their influence is slightly less in 2005, which is a positive trend. The main reason for this is a successful recruitment drive which brought many new permanent staff members into the environment.

In 2005, the EXCO community became more central to the network, and seems to have built stronger relationships with other critical communities.

The IMA community also became much more influential in the network, a necessary change, as they are the architects who design the blueprints for new systems and products that other communities need to implement.

4.1.4 Dimension 4 - Warmth

Question: As we interact with others, our comfort level varies. How comfortable is your community when it interacts with each of the following communities?

Results focused on the top two values in the response scale ('Comfortable & Very comfortable') – i.e. meaningful ties.

Figure 4. Comparative results: Warmth Dimension

Warmth is the dimension that is most open to political game playing. Very few people are prepared to indicate discomfort with someone else, however conducting the SNA on community level mitigated part of the problem. It is interesting to note that the density in this network is significantly higher than in the other three dimensions. This seems to indicate that people in the network are very comfortable interacting on a superficial or social level, but less so when having meaningful, collaborative interactions.

This is the only dimension where the density decreased from 2004 to 2005. A possible reason for this is the high number of new employees that entered the environment during this period. It stands to reason that comfort levels will decrease with the introduction of many unfamiliar people.

Currently the project team is investigating ways of leveraging off this highly connected network to address some of the problems that were found in the other dimensions. Is there a way to incorporate learning activities in informal sessions, such as the Friday afternoon open bar, for example?

4.2 Using Cynefin methods to expose perspective bias differences

The results of the initial SNA indicated disconnected communication flow between many of the communities in IM, but most notably between the EXCO and IMA (architecture) communities and the rest of the network. As these were the main communities who had a strategic focus, the project team felt that this issue was worth further investigation, as it probably had a big impact on strategy development and implementation in the division. The team decided to investigate how big the role was that perspective bias differences between these communities had in this communication problem.

A case study of where Cynefin methods were used to expose perspective biases between government entities in Singapore, led to the selection of the Cynefin Categorisation method for use in this initiative.

4.2.1 What is perspective bias?

“We don’t see things as they are. We see them as we are.”, Anais Nin

We all make sense of the world differently, and therefore we react and communicate accordingly. This often leads to difficulties or conflict when people (or communities) who view the world differently try to communicate with each other.

There are two aspects to perspective bias:

- Difference - this is not necessarily negative, as people in different positions often need to approach the world differently, e.g. someone working with data and statistics needs to be more ordered than someone managing people.
- Dissonance – this is often negative as it shows that the same concepts are understood and interpreted differently by different communities. This could lead to communication disconnects and therefore a very a slow response rate in times of crisis in an organisation as different communities attempt to reach consensus.

The Cynefin framework (see Figure 4) is a sense making framework based primarily on order vs. un-order. It has 5 domains - visible order, hidden order, complex un-order, chaotic un-order and disorder.

When a single dataset is categorised into this framework by several different communities, the results indicate differences in the way that the communities view and understand the concepts represented by the data points. The different distribution patterns reveal the bias differences between the communities. Looking at where specific data points were placed by each community reveals bias dissonance.

Figure 4. The Cynefin sense-making framework

4.2.2 Approach

During a workshop (attended by proxies from each of the formal communities), the Cynefin framework was introduced to the participants. Once we were sure they understood the framework, they were asked to brainstorm around concepts and issues etc. which were present in the IM division that they felt fit into each of the Cynefin domains. The output from this session was a fully categorised dataset, which represented the collective perspective of all the communities in the division.

The dataset was reproduced on stickers, and workshops were arranged with each of the communities where they were asked to categorise the concepts into the Cynefin framework from their own perspective. This resulted in a set of categorised frameworks from the perspective of each of the individual communities.

The project team collated the information, and compared the placement of the data points by each of the communities to discover the primary bias of each of the communities. The Cynefin domain into which the majority of the data points were categorised indicates the primary bias for the community (Figure 4).

An interesting result (although by no means unexpected when one considers the environment) is that the majority of the communities showed a strong bias towards the ordered domain. There were

some communities (e.g. EXCO) with a strong bias towards un-order, specifically the domain of Complex Un-order, which once again is to be expected of a strategically focused community.

These results shed some light on another reason for the problems that the Executive had when it came to strategy formulation and communication. It was quite probable that the language they used when communicating to the rest of the communities was too abstract, not specific enough for the ordered communities to buy into. Often communities with an ordered bias are very task-orientated, they get frustrated when communications are vague and abstract; they want to know the specifics and get on with it. Communities with a bias towards complexity are usually more comfortable communicating on higher levels of abstraction; they tend to see the bigger picture, and think strategically. It is often difficult for them to translate their ideas into clear and concise messages that would resonate with the ordered communities.

Figure 5. Bias difference results based on primary bias percentage per community

The secondary bias percentage for each community was also taken into account, as it allowed the team to identify bridging communities that could be leveraged as ‘mediators’ between communities with incompatible primary biases. The KMCS (Knowledge Management Consulting Services) community is a particularly important bridging community, as they straddle three of the four domains (simple, complicated and complex). This indicates that they are perfectly suited to their role as KM consultants, but in addition, the community could be leveraged by other communities to assist with communication difficulties.

Figure 6. Bias difference results based on primary and secondary bias percentages per community

To determine bias dissonance between the communities, the placement of specific data points was compared.

When considering bias dissonance it is important to note that four of the Cynefin domains (simple, complicated, complex and chaotic) may each be divided into four sub-domains.

- Stable - the central area in each domain is the area where concepts are viewed as being stable in that domain, i.e. the concept has always been in that domain and can be reasonably expected to remain stable. Understanding aeronautical mechanics is and will always be complicated, for example.
- Extreme - Towards the furthest outer corner of each domain, is where the concept is categorised if it is viewed as being extreme, almost to the point of becoming unstable in that domain. E.g. if a process in the 'simple or visible order' domain is over constrained, it may collapse into chaos.
- Boundaries - There are two boundary conditions for each of the domains, which indicate that a concept may be viewed as transitory between the two domains on either side of the boundary.

Figure 5 shows an example of the dissonance results in the environment on the concept of 'decision making'. From the categorisation results it seems that when the different communities have to make joint decisions, it may be problematic. Many of the communities view decision making as an ordered task, i.e. if you've done your research and you've got the relevant information, making the decision should be simple. Other communities view it as an un-ordered task, and may seem to be procrastinating while they weigh all the options.

These different perceptions and decision making styles manifest in the environment as a perceived lack of decision making capability by the workers on the ground. It is interesting to note that none of the communities classified this data point as being in the Extreme part of any of the domains. Many communities saw it as being transitory between two domains. Other data points with significant dissonance include: Collaboration, teamwork, leadership, management, customer, customer service, delivery and measurement.

To address this problem, the KM team is currently implementing an initiative where the communities will collectively participate in defining a 'common language' for the division. To this end, several workshops will be held where the participants will collectively agree on the meaning of each of these concepts. These definitions will then be diffused into the rest of the division to ensure that, when a discussion occurs about a customer (for example), everyone is on the same page and talking about the same thing.

Figure 7. Bias dissonance results on concept of Decision Making

5. Results and Business Impacts

5.1 Key Findings

Since every diagnostic is an intervention in itself, simply participating in these initiatives changed the environment significantly. One of the biggest challenges the project team faced during this process was related to the measurement of the specific impact and derived value of each initiative.

These initiatives weren't conducted in a vacuum. Many other changes occurred in the environment at the same time, e.g. new people joined, others left, and other initiatives were run during this same time period. It was therefore extremely difficult to determine how much the SNA and the resulting initiatives contributed to the positive changes in the environment.

Articulating the real value of these initiatives is an ongoing challenge. The derived value typically tends to be intangible, and often it is not what revenue-focussed executives expect. In a task-orientated environment such as the IM division, where most of the discussions are centered on data and systems, conducting a Cynefin intervention based on exposing and addressing softer issues, was a definite challenge. A big frustration for the project team was that, despite the fact that the majority of the participants could see the value that the initiatives brought to the division; very few of them could clearly articulate that value. Simply creating a forum where decision makers and staff could discuss these issues made a big difference, but how does one place a value on such a discussion?

The SNA results confirmed the existence of silos in the environment, and although management was aware of these silos, they had no clear view of where the biggest problems were, or where pockets of cross-silo collaboration existed. The SNA provided them with a mechanism to design targeted interventions to address specific problems. It is important to note that it is never the objective to connect all communities in the social network to all other communities, as this would significantly hamper the effective functioning of an organisation. A more effective approach is to determine which communities should be connected, and to focus on creating only those connections which will benefit the business. The Perspective Bias exercise provided further insight into the communication disconnects that play a role in the perpetuation of these functional silos. Awareness of the fact that the different communities view the world differently had an immediate effect on communication in the environment.

One of the main issues that were highlighted by the 2004 SNA was that the Executive community (EXCO) was largely cut off from the rest of the network, across the key dimensions of learning, meaning and influence. This was further substantiated by the results of an independent quantitative study conducted in the division prior to the SNA. These results showed that the strategic direction of the division (set by the executive) wasn't well understood by the rest of the staff. Specific interventions were put in place to address this issue, with the executive focussing on being more accessible to staff members, and on communicating in ways that resonated with the environment. The positive impact of these interventions was clear in the 2005 SNA results, which revealed that across all dimensions the density of the networks, have increased dramatically. The EXCO community has increased their network ties in terms of learning and meaning, and feedback from the environment confirmed that the overall perception of the EXCO community and the strategy of the division have become more positive.

Not all of the projects resulting from these initiatives were focussed on intangibles.

The SNA results made it clear that the different communities did not understand the value of each of the other communities. Further investigation showed that there was general confusion in the division regarding whom the experts were that they needed to consult with in each of the

communities. An initiative was completed in August 2005, where an individual SNA was combined with a peer review process to identify experts on relevant topics in one of the communities. The results of this initiative was used to determine succession plans for critical areas and was so valuable that the methodology is now being formalised to be re-used in other areas of the bank.

Another consistent theme across all of the SNA dimensions is the high dependence on consultants and contractors. This is an ongoing problem, which is caused by a shortage of specialised skills in South Africa. There is no real solution to this problem, but the business impact can be minimised by ensuring that proper knowledge transfer processes are in place to make sure that critical knowledge is retained even when the consultants leave the environment. Establishing these processes is another project that resulted from the SNA.

The general feeling within the division is that there has been a definite improvement in communication flow, and while silos prevail, they are less prominent than a year ago. Cross-divisional communication has increased, and this has led to better collaboration and the ability to leverage the full potential of the IM division when responding to client needs.

5.2 Business Impacts

By combining information about the flow of knowledge and information through the existing networks, and perspective differences within those networks, provides a level of understanding that using only one technique does not provide.

Within highly specialised environments (in all industries), silo cultures are a pervasive problem; leading to loss of sales and growth opportunities and stifling innovation. This project indicates that silo's can be broken down by utilising techniques that have relatively little time impact in the environment. The techniques expose the underlying causes for these silos, and allow organisations to not only address them superficially (the symptoms) but to address the underlying causes.

If perspective bias dissonance is exposed and addressed, it enables an organisation to be agile in most any situation. When faced with a crisis, it should be able to respond much quicker than their peers and competitors, as all the key decision makers should have a common understanding and shared context around key concepts. It is also useful to know which of the communities are strongly biased towards specific domains, and therefore are comfortable in specific domains. For example, communities with a bias towards the complex or chaotic domains may be very effective in a crisis, as they are more comfortable than other communities when faced with a chaotic situation. Similarly, it will be more efficient to assign administrative responsibilities to communities with an ordered bias, as to communities with an unordered bias.

After completing the initiatives mentioned in this case study, the project team interviewed several of the key stakeholders to get their view on the impact that these interventions had on the environment, and how they experienced the process. Key points that were raised include:

- Most participants indicated that most of their expectations were met. They found that the SNA provided them with a view of the organisation that they've never considered before and they felt that the method had the capability to expose the root causes for many of the existing problems in the environment. (Reads difficult, especially the first fragment after the bullet.)
- They were concerned that in some cases the results of the community SNA weren't granular enough and expressed an interest in investigating the implementation of an individual SNA in the environment.

- A general feeling was that the biggest value of the SNA and the categorisation was the creation of a general awareness of the underlying issues, and that this awareness led to sub-conscious behavioral changes that are difficult to articulate.
- The **discussions** that occur as part of the sense making process already lead to changes in behaviour and therefore changed the system.
- SNA **highlights key areas to focus** on to change behaviours in the system.
- Cynefin interventions provide a **different perspective** – focusing on **softer issues** and providing a mechanism to deal with those issues. In task orientated environments this is especially valuable as it assists leaders to influence the culture in their environment.

6. Conclusions

The Cynefin methodology is very different to other traditional consulting methods. One of the main differences (and a key strength) of the methodology is that it isn't based on pre-determined hypothesis. Often when we conduct an initiative to prove a pre-existing hypothesis, we end up not seeing the real problem, because we try to interpret the findings in such a way as to prove the hypothesis. Cynefin methods allow the real issues to emerge from the environment, and as such provide a platform to air issues that may otherwise have remained hidden.

Because of this different approach, participants usually receive it very positively and it definitely assists in getting to the root cause of many complex issues, as most participants are unaware of the impact of the exercise they are completing. This also minimizes the risk of people 'gaming' the process to ensure desired results.

It, however, remains a difficult concept to sell, especially because of the difficulty in measuring tangible benefits. In subsequent projects, we've ensured that stakeholders are aware that most of the benefits will be intangible right up front. We've recently started a project where we hope to use SNA and other Cynefin methods to address high levels of staff attrition in another area of the bank. In this instance we hope to be able to show real tangible benefit.

Practical Tips and Key Lessons:

- Key measurements should be agreed up front to make sure that value derived can be quantified. If the derived benefits will be mostly intangible, make sure that stakeholders agree to this up front.
- A high-level sponsor is needed to ensure 100% staff participation, SNA results may be skewed if there aren't enough participants.
- An SNA should never be done simply for the sake of doing it. A real business problem must exist, and the SNA questions must be tailored to elicit information specific to the problem.
- Never forget the context – if an SNA was run to determine the knowledge network, don't extrapolate the graphs to give cultural insights
- Be prepared for contentious results – often the communities don't like what they see in the graphs
- Be careful who the results are communicated to, they can easily be used to further someone's own agenda – this is especially true when doing an individual SNA.
- Similarly, care must be taken when communicating perspective bias results. Some people may try to assign a value to a specific domain bias, e.g. communities with a

complex bias are better than communities with a simple bias. This is completely untrue, as no Cynefin domain is more desirable than any of the others and for an environment to operate efficiently it needs resources that are comfortable in each of the domains.

- Participants were frustrated by a lack of accountability to take forward the suggested initiatives that resulted from the SNA. To address this issue, agree upfront that business will own the results of the initiatives and specify who will be responsible for the implementation of initiatives that fall into certain areas. E.g. People Management or HR will take forward all Culture related issues, KM will focus on Knowledge initiatives, etc

Acknowledgements

The author would like to acknowledge the following people for their contributions to this case study:

Dave Snowden, Zachda Prinsloo, Roy Lottering

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Author Biography

Sonja Bignaut is a Senior Business Consultant in South Africa, currently in the employ of IBM Business Consulting Services. She started her career as a meteorologist at the South African Weather Bureau (from there her understanding of Complex Adaptive Systems). She changed careers to become an internet developer, and specialised in Web Content Management.

Her career naturally progressed into a focus on the business aspects of content and knowledge management, and her technical background proved to be very advantageous. In 2004, Sonja first encountered Dave Snowden and the Cynefin methodology, and she's been focussed on the application of Cynefin methods ever since. She is currently one of a handful of Cynefin Certified Practitioners world wide.