



The challenge? Improve / build skill-sets of young people to better manage their sexual health.

What did we do?

• Prototype Extraction, a technique we had learnt about from the Cognitive Elaboration and a related work - consistency from previous work by researchers & social network analysis (SNA)

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• A network of people and relationships that we had all gathered in our community. We had a list of people in our community that we had all gathered in our community. We had a list of people in our community that we had all gathered in our community.

Results - expected

- The prototype extraction process gave us insight into the un-ordered & ordered properties and the
- Social network gave us some patterns of interactions in the complex adaptive system

Un-expected Results

- Relationships with people changed (they were very honest about things that were harder to reach before)
- But the dynamics of the system eluded us.



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What did we do?

• We conducted the work as follows: we gathered data from a group of young people who were part of the system project. We then used the Prototype Extraction technique to identify the most common patterns in the data. We then used the SNA technique to identify the most common relationships between the young people in the system.

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We started with the Cynefin Framework, a 'leader's guide to decision making' (Snowden and Boone, 2007)

In the context of:



At this time (around 2011) we had heard about 'complexity' but we were not at all confident about applying it in a rural space.



And our assumption was that if we were to deal with 'complex' the uncharted aspects of 'prevention' we needed to find out what it represented so we could further understand the properties, patterns & dynamics of the complex relational system.



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In the context of:

Rural South Africa (Ga-Dikgale, Limpopo Province);

- ~ 35,000 marginalised people, high levels of unemployment, regular migration in/out of the community;
- HIV prevalence antenatal women age, 2011, –
 - 15-19= 7.4%
 - 20-24 = 17.5%
 - 25-29= 27.4 %
 - 30-39 = 33.6%.

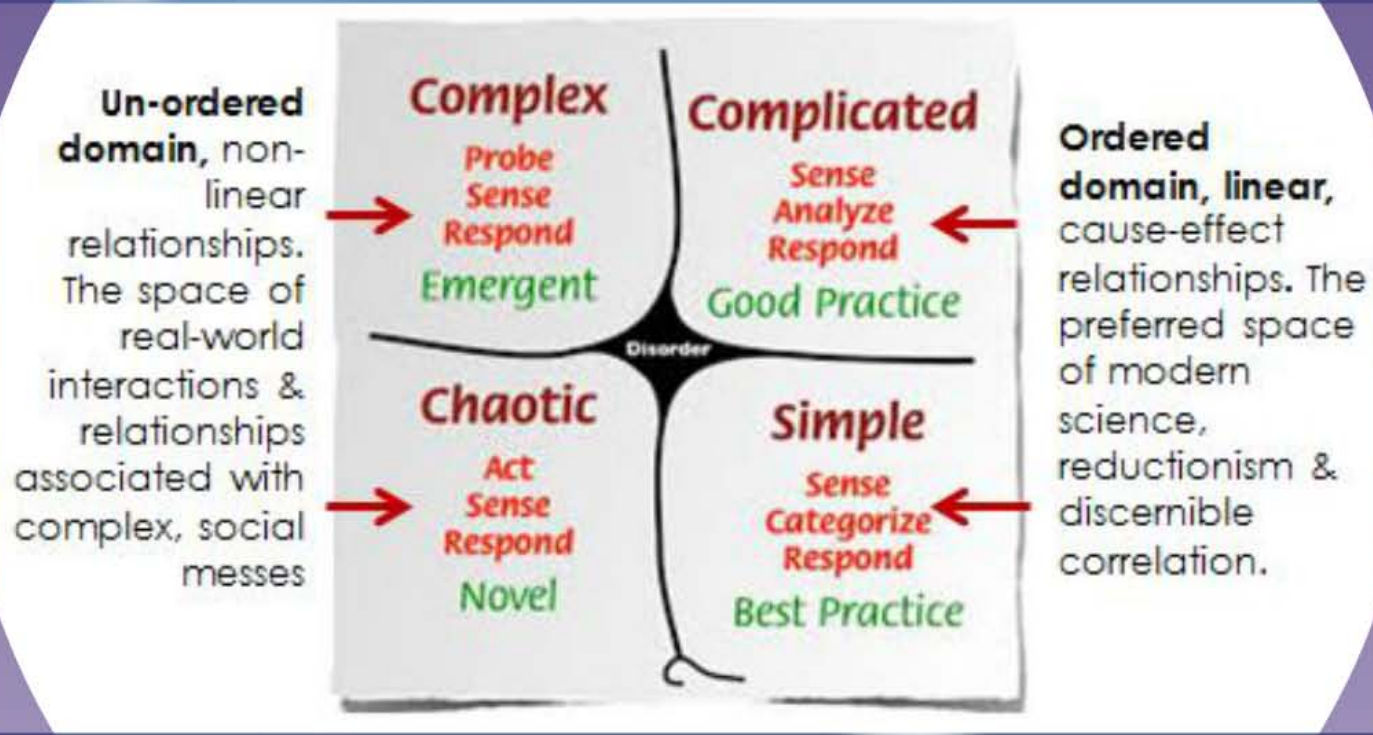


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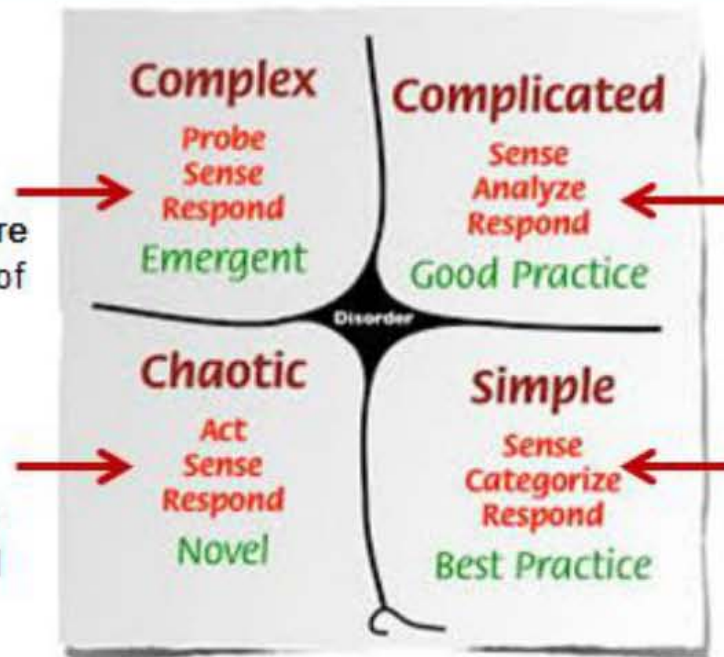
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Un-ordered domain: Most prevention strategies **ignore** this (the space of real-world [naturalistic] interactions & relationships associated with complex, social messes



Ordered domain: Most prevention strategies are conceptualised in ways that **assume the decision making is made here**

And our assumption was that if we were to deal with / confront the un-ordered aspect of 'prevention' we needed to find out what it represented so we could better understand the properties, patterns & dynamics of the complex adaptive system.

What did we do about it?

Archetype Extraction, a technique we had learnt about via the Cognitive Edge website and a private sector consultant from Johannesburg (properties) & social network analyses (patterns)

Methodology (2)

- Ask the participants to ascribe 4 good & 4 bad human attributes to each cluster name;
- Then remove the cluster name, scatter randomly on wall and give a name that includes an adjective and a noun;
- These are the archetypes (second phase of emergence).

Methodology: Two Phase Emergence (1)

- Attached sticky notes to each character to capture the character and if notes on wall & participants to cluster
- Each cluster is named by the participants and the original characters are removed
- Clusters are then ordered by importance of the problem

Then request an artist to sketch the archetypes.

- Which means that the participants have:
- Given you stories;
 - Clustered the characters in the stories and coded them in a way that makes sense to them;
 - Then given you the human attributes that they associate with the structured properties;
 - And then told an artist how to draw them.

Social Network Mapping (influence mapping, MSC stories) looking for patterns



Methodology: Two Phase Emergence (1)

- Anecdote circle: facilitators note 'characters' in stories; put them on post-it notes on wall & ask participants to cluster;
- Each cluster is named by the participants and the original characters are removed
- These are the ordered properties of the system.

Methodology (2)

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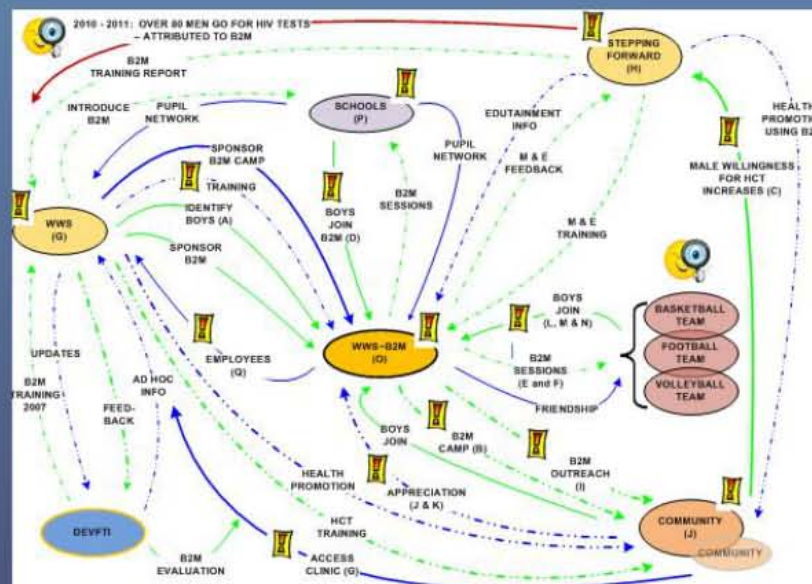
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One of the more powerful images was this one



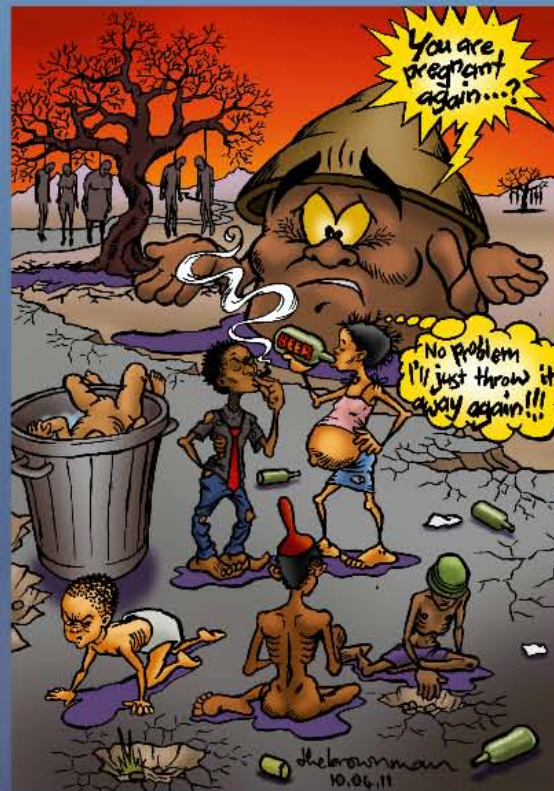
The topics that emerged included:
Mental health, hopelessness, stigma, (non)-adherence, testing, traditional / modern health practices, witchcraft, fake medicine sellers, community strengths / support, male circumcision (initiation ceremonies), teenage pregnancy, alcohol & substance abuse, school truancy, selling / use of body parts for medication, lack of government support ;
• Almost 50% of the un-ordered issues were things we can work with.



SNA gave patterns of treatment seeking behaviour



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Un-expected Results

- Relationships with people changed (they were very honest about things that were harder to reach before);
- But the dynamics of the system eluded us.

They told us what they should do -



And they told us the places they trusted

Treatment Option	Confidence: 2 = least 3 = most
Clinic	5
Hospital	5
Home Based Care	5
Old Age Home	5
Family	5
Prophets	3
Traditional Healer	1
Community	1

But the dynamics of the system were still elusive

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What did we do about the dynamics?

- We realised that we were part of the complex adaptive system';
- And that all of us (researchers and participants) were framing the health challenge in silos and not through an interdependent process of developing skill-sets for managing health.
- **What sort of competencies / mind-sets were required?**
- Distributed cognition / ideas come together that enable both deductive and inductive processes to coalesce.

- Continued the community dialogue and began to re-conceptualise our own biases;
- Stopped analysing the complex adaptive system (because it is like 'chasing a rainbow');
- And moved from aiming for 'self'-efficacy to 'distributed'-efficacy.

THE CYNETIC
FRAMEWORK
Self-organising, dynamic, distributed
cognition in a complex adaptive system
is a part of... PREVENTIVE, ADAPTIVE &
EMERGING
The Cynetic Framework is a dynamic, community-based
system that allows us to understand the
complex, interconnected knowledge of how the
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Dynamics?

- We realised we were locked into a 'path dependent' trajectory based on the now discredited ABC approach to HIV prevention & reductionist / linear thinking;
- Which was contrary to our original plan.



We re-visited the ordered domain of the Cynetic Framework and realised that we had ignored the multiple ways of managing HIV/AIDS and moved from the 'prevention' metaphor to 'viral load management'

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IN CONCLUSION

- We have more...
- We have more management...
- Self-efficacy...
- That includes...
- aspects of a...
- are a part of...
- DYNAMICS...
- And will im...
- safe-fail int...
- ordered bi...
- management...
- local comm...
- than we an...

IN CONCLUSION

- We have moved from 'prevention' to "viral load management";
- Self-efficacy to "distributed-efficacy";
- That includes both ordered and un-ordered aspects of a complex adaptive system (which we are a part of) - PROPERTIES, PATTERNS & DYNAMICS;
- And will implement (2014) using community based safe-fail interventions that incorporate the ordered biological knowledge of viral load management & the un-ordered information that local communities are better able to work with than we are.



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What did we do?

• We conducted the work in 2017/2018/2019. The first set of activities was to conduct a survey to get a general idea of the current state of the system. We then conducted a series of focus group discussions to get a better understanding of the system. We then conducted a series of interviews with key stakeholders to get a better understanding of the system. We then conducted a series of interviews with key stakeholders to get a better understanding of the system.

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