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Supporting decision-making despite turbulence and uncertainty

Development projects are designed to address challenges that persist in developing contexts and to assist stakeholders in breaking through the forces that keep local systems trapped in unsustainable configurations. In development cooperation, we must navigate the paradox that despite all the change and fluidity in developing countries, many patterns stubbornly resist change. Often patterns appear resilient and are kept in place by ambiguous forces that can only partially be detected during diagnosis, planning or implementation of development projects. Instead of "more of the same" solutions, we need to find ways to support local innovations that are appropriate to the context while at the same time reducing the risks of catastrophic failure.

Most development projects can adapt to the local context despite the apparent rigidity of official project planning and measurement instruments. The challenge is to decide when to be creative, when to continue with a given course of action despite the absence of supporting evidence, when to delay deciding, and when to take bold action because a situation requires immediate action. How can leaders and teams make better sense of the situation to identify appropriate ways to act?

The Cynefin framework (pronounced kuh-nev-in) originated as a knowledge management and decision-making framework for business leaders. It became famous following the publication of a Harvard Business Review article by Snowden and Boone (2007). Although some labels in the framework have changed over time, the underlying logic remains the same. Cynefin is a Welsh word for a "Place of your multiple belongings", and it helps decision-makers to locate themselves and their unique contexts.

Cynefin allows us to make decisions despite turbulence and uncertainty. It enables us to explore innovative alternatives sensitively and to pay careful attention to our effects on the systems that we work in.

Cynefin is widely adopted in management and military strategy, and, in our experience, it is also valuable in development cooperation as a decision-support and sense-making framework. This versatile framework can be used to:

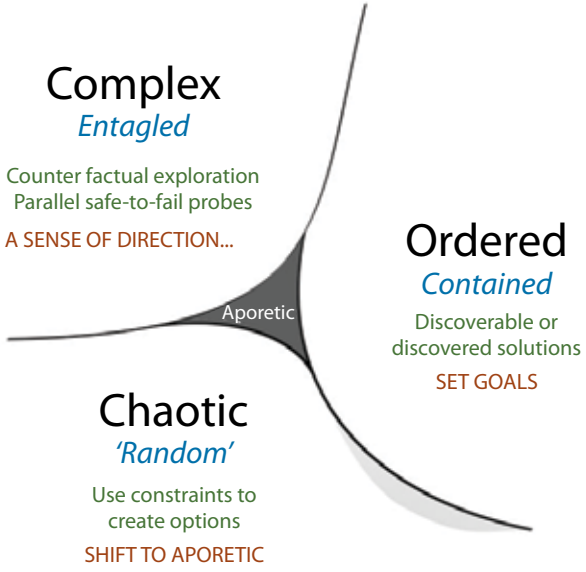
- Reflect on past decisions so that we can innovate going forward
- Build a shared situational awareness within teams and between stakeholders
- Figure out where we can exploit what we know with different degrees of certainty, where we must explore the unknown, and where we have to decide or act swiftly
- Coordinate initiatives during a crisis.

The Cynefin framework

Cynefin distinguishes between three different natural states of systems (see Figure 8):

- ordered systems in which cause-and-effect relationships are apparent or discoverable through analysis
- complex systems where the only way to understand a system is to interact with it and then to pay careful attention to how it changes
- chaotic systems in which turbulence prevails, and immediate stabilising action is demanded.

Figure 8: Cynefin framework showing the three kinds of systems



Source: Snowden (2021)

One way to think of these three domains is to use the differences between ice, water and gas. The ordered domain is like ice, and as shown in Figure 8, it is contained because we can predict what is needed to achieve a set goal. The complex domain is like water; everything appears entangled and connected to each other in unpredictable ways, while the chaotic domain is like gas; it is random, and there are no effective constraints.

The ordered domain is for knowable and predictable issues where we know which actions to take. The ordered state can be subdivided into two sub-domains (see Figure 9), the clear and the complicated domains, depending on how certain we are that a given action will lead to a specific result. The difference between the clear and the complicated domains is the number of interactions between different parts. In the clear domain, what must be done is self-evident. In the complicated domain, expertise is often required to help frame questions, evaluate solutions, or assist with correctly sequencing activities.

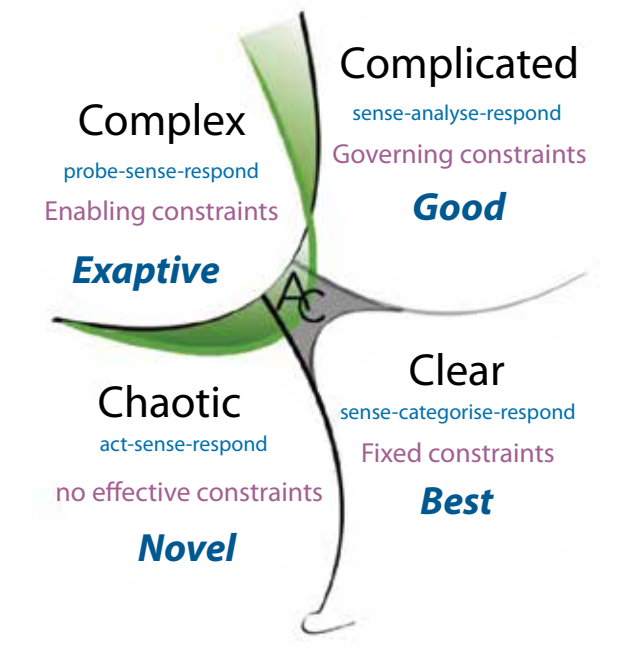
The complex and chaotic domains on the left of the framework are unordered, meaning that the causal relations and correct responses are

unknowable or unpredictable in advance. The difference between complex and chaotic is that in complex systems we must move slower, trying different approaches to a coherent hypothesis from various angles, while carefully observing for weak signals that our actions affect the system. In the chaotic domain, there is no time to figure out our options or possible influence on the situation; somebody must take immediate action to stabilise the situation and hopefully buy time. This is typically the appropriate behaviour in a crisis where there is no time to evaluate options or reach a consensus.

In between the ordered, complex and chaotic states is another domain called the aporetic or confused domain, sometimes abbreviated to A/C, which represents a state of not knowing whether we belong in a different state, or how our own contradictions may be holding a situation in place. This is the transition space between the ordered, complex and chaotic domains. In this domain, we don't know which domain we are in, or we face value contradictions. In many reflections, this is where we start from.

Lastly, the boundary between clear and chaos is a cliff (illustrated at the bottom of Figure 9 as a hook): when a situation shifts from clear (ordered) to chaos, it may be difficult to recover. This could happen when incorrect

Figure 9: Cynefin framework showing five domains



assumptions are made in the clear domain and complacency sets in, or signals indicating that things are not as they seem are ignored.

For each of the domains, some heuristics guide processes.

The Cynefin framework can also reveal the constraints that modify the range of potential actions or the probability distribution of shifts in the system. While constraints imply limitation; constraints also enable or govern the coherence of a system. These constraints inform the shape and behaviour of the system but might easily be overlooked. In Figure 9, the following constraints are shown:

- The clear domain is associated with rigid constraints. The range of actions to achieve specific effects is limited.
- The complicated domain is associated with governing constraints; there are laws, rules and codes that govern the patterns and relations between elements.
- The complex domain is associated with enabling constraints, creating a space where actions can happen within certain boundaries.
- The chaotic domain is associated with an absence of constraints; it is unconstrained.

Mapping and understanding the constraints helps reveal the path-dependent features of the underlying territory. The interdependence of constraints and the effect of the constraints on interdependence allow systemic behaviours to emerge[2].

Using the Cynefin framework in practice

In our experience, explaining Cynefin, complexity thinking, non-linearity, or any other theoretical framework is unnecessary before using the framework.

I will briefly explain two ways in which we often use the framework.

2 https://cynefin.io/wiki/Constraints

Cynefin as a quick orientation framework

One easy way to utilise Cynefin is to consider it as a framework for categorisation.

1. Agree on the situation or possible decisions that the group must make sense of.
2. Draw the Cynefin outline (either three domains or the five domains).
3. Generate ideas, insights and possible actions on post-it notes. Either place the ideas generated in the A/C domain or place them on a blank sheet.
4. Start with the clear domain and ask participants to identify issues or solutions that are self-evident.
5. Identify the complicated issues for which expertise, analysis or sequencing of steps may be critical.
6. Identify the complex issues where the patterns are unclear or where competing hypotheses exist.
7. Identify the chaotic suggestions where immediate action is needed to stabilise the situation.
8. Use the Cynefin heuristics to develop portfolios of actions appropriate for each domain.

Cynefin as a sense-making framework

A more powerful way of making sense is to start with a blank canvas without the Cynefin outline, pens and post-it notes.

1. Together agree on the situation or possible decisions that the group must make sense of.
2. Ask the participants to capture observations or insights on a few post-it notes. Only write one idea per post-it. They must keep these notes with them.
3. Ask the group to identify four exemplar issues from their lists that will be placed on the four corners of the blank canvas by identifying an issue:
    a. where there is a single or optimal answer that is self-evident (bottom right)
    b. where expertise or analysis might be needed (top right)
    c. where there is no way to predict the outcome or where there are conflicting suggestions about the problem or the solutions (top left)
    d. where immediate action is needed to stabilise a situation (bottom left).

4. Consider the remaining post-its and place them on the canvas in relation to the other post-its already placed on the canvas. If there is no agreement or clarity on where to place an idea, move it to the centre.

5. Draw in the boundaries between the domains. A piece of string can be used to enable negotiation.

a. Do not allow post-its on the line. Rather, allow the issue to be split into coherent ideas that can be placed on either side of the line.

6. Use the Cynefin heuristics to develop portfolios of actions appropriate for each domain.

An important reminder for using Cynefin: complex and complicated

There are multiple and often competing hypotheses about a complex situation. We use this tension to develop a portfolio of safe-to-fail probes that can be implemented simultaneously to test the boundaries and constraints in the system. The portfolio must contain naïve, counter-intuitive and even contradictory probes. The portfolio is only ready to be launched if there is agreement about how positive developments will be amplified or negative developments will be dampened. This helps everyone to focus on the weak signals of change and the effects of the probes on the system.

In the complicated domain, it is possible to figure out what to do through analysis or expert knowledge. Therefore it is possible to pitch different experts against each other to develop better questions

or assessment criteria for potential solutions. In the complicated domain, our solutions should be fail-safe, meaning that we take care to think of the consequences, blind spots, sequences and resource implications of our decisions.

Conclusion

The Cynefin framework is valuable to leaders in development contexts because it helps identify the nature of the issues we must confront to take appropriate action. It allows people to develop a shared situational awareness of the context, options, and possible innovations or actions to take. The framework can be used to reflect on the past, but it can also be used in the present to synchronise efforts going forward.

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