Clear Impact

Simple truths. Consistently applied.

COMPLEXITY THEORY: THE CYNEFIN MODEL

Clear Impact
Consulting Group

This framework from David Snowden of Cognitive Edge describes four different conditions that require different strategies for thinking and acting. He refers to these different strategies for thinking and acting as different ways of *sense-making.* That's a good term, because it's important to make sense of a situation correctly, first, in order to respond appropriately as conditions change. It is a very useful framework because many leaders prefer one strategy of sense-making and then try to fit all leadership situations into that box.

Simple Systems

- Clear cause and effect relationships that are easy to understand and are repeatable and predictable
- There are rules, and therefore predictability. If doing X leads to the result Y, then every time you do X you will get Y. That is, the rules of the system have a consistent impact on the agents in that system. Solutions are linear and rational.
- Lend themselves to" best practices," with standard processes and clear measurement
- Once we know what something is, we know what to do with it. Frederick Winslow Taylor's Scientific Management improved efficiency by breaking everything down into simple, repeatable steps. Fast food franchises, for example, can do well with high employee turnover because each step is clearly laid out.

Complicated Systems

- Complicated Systems still have a clear relationship between cause and effect, but it takes considerable training to understand that relationship, and analytical techniques to determine a good way forward. This is the area of experts, and realm of good practice, rather than best practice, because different experts may come up with equally good solutions to the problem.
- Complicated systems lend themselves to detailed planning before taking action.
    - Building a 747 or other engineering problems are good examples. Each of the parts are known, including how they work together, but it still takes experts to figure out the right sequence and how to respond to different conditions that may arise.
    - A sign of being in the Complicated realm is that, if the same situation recurs, the same solution will apply. Simple and Complicated Systems are both Ordered Systems. Rules always have the same impact on agents within the system. Solutions are rational and linear, and repeatable.

Complex Systems

- Complex systems have an interrelationship between cause and effect that cannot be predicted in advance, although in hindsight whatever happens will make sense
- This is because:
    - There are too many different factors and interactions to take them all in account

- o The elements of the system (the rules and the agents) change each other as they interact, so they continually co-create each other
  - o Sometimes a seemingly small factor has an extremely large effect.
- When a result happens in hindsight it makes sense, but if the same "causes" were applied again a different result would likely emerge
- In a Complex System you can begin with expertise, and apply whatever skills and knowledge are at your disposal, and then you see how the system responds and have that determine next steps. If it works, then do more of it. If not, then shift. This is the realm of *Dynamic Steering*, with rapid cycles of goal, action, feedback and reflection.
- The leadership of people in an organization is a Complex System. Change management, creation of high performance teams and organizations, and employee engagement initiatives all fall in the Complex area. There are not simple rules to follow. The same actions do not always lead to the same results.
- ***Leaders who identify primarily with themselves as technical experts tend to use a very ineffective style in Complex Systems.*** This is often true for leaders who were promoted for their technical excellence rather than for their potential as leaders of people, and who were then given little or no training in how to effectively lead.
  - o Unlike Complicated System, which lends themselves to linear approaches, Complex Systems are non-linear.
  - o While Complicated Systems can be figured out and have predictable outcomes, in Complex Systems the solutions are **emergent** because they become clearer over time, especially with frequent learning cycles.
  - o For this reason, Complex systems do not lend themselves to hierarchical, top-down, command-and-control solutions.
  - o However, most leaders were promoted by gaining mastery in Complicated systems, and those systems are more conducive to top-down hierarchical leadership. To the detriment of the organization and its employees, these leaders often continue to apply that hierarchical and linear style of leadership to issues in the Complex domain.

"Everything should be made as simple as possible, but not simpler" – Albert Einstein

Chaotic Systems

- In a Chaotic System all hell has broken loose.
- There are no rules, or at least no clear ones. The situation is novel and it's a crisis.

- There are no obvious cause and effect relationships, and the leader's role is to first take action to try to stabilize the situation.
- Once stabilized it likely becomes a Complex System.
- Some leaders thrive in chaotic environments, but then have a hard time letting go of tight control when the situation shifts to one of the other systems.

Disordered Systems

- A system is Disordered when it's not yet clear which of the four Systems is actually present.
- When leaders are first exploring Complexity Theory, this isn't a bad thing. Developmentally it's a very good sign when a leader stops to ask, "What conditions are currently present, and therefore what kind of sense-making is needed?"

Recognizing Different Conditions

Let's use the example of building a bridge.

- Prior to construction, experts need to apply their craft and come up with a plan for moving forward. This part of the work is a Complicated System.
- Once the work commences, some of it is in the realm of a Simple System. It's known at what temperature certain paints will adhere, for example, and how to best fasten parts of the structure together. There are known and replicable processes to put into place.
- For both the Simple and Complicated Systems there are rules to follow that work consistently, rationally, and linearly. Both are conducive to more hierarchical, top-down management.
- However, maintaining a positive work environment, optimizing engagement and harmony, managing high performance and retaining top talent is Complex. Though there are important models to consider and apply, it cannot all be figured out ahead of time. It requires a different mindset on the part of the leader and the outcome is often emergent.

It is very important for leaders to understand what conditions they are facing, and which of the four mindsets or ways of sense-making are most effective given those conditions. Frequently a task will have at least three different conditions present in different aspects of the work.

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