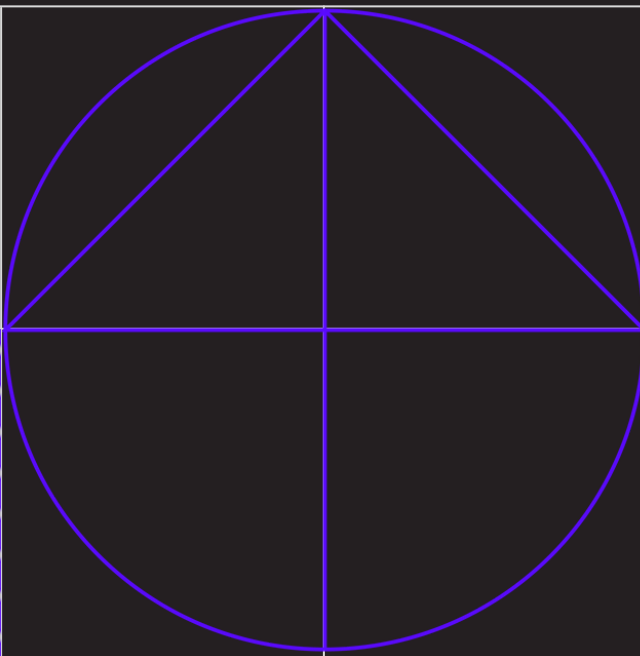
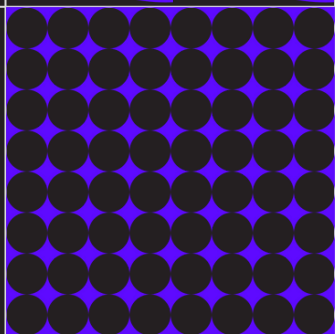
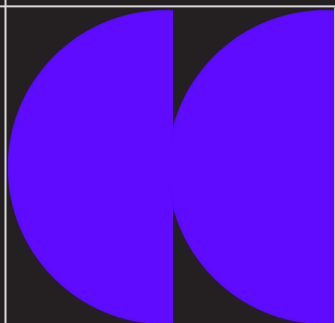


INNOVATION NORTH



Session 13 Briefing Note:

SIMPLE RULES FOR A COMPLEX WORLD



Our upcoming Lab session will focus on conquering complexity with Stanford University Professor Kathleen Eisenhardt, who will show us how simple rules can help us navigate complexity in the short, medium, and long term. She will lead a discussion and exercises based on her book, Simple Rules: How to Thrive in a Complex World.

Understanding Simple Rules

The world has become more complex and interconnected, putting undeniable pressure on organizations. The typical cause-and-effect approach to solving problems won't work in such complexity. In a complex system, problems don't usually come from a single cause, but rather many forces converging unpredictably.

Simple rules can cut through the chaos in complex systems. The body, for example, is a complex system, but three simple rules – eat right, exercise, and sleep well – can keep it functioning properly. Eisenhardt will show us how simple rules can help us regain control in a complex world. But first, we must understand complex systems and simple rules work.

What Is A Complex System?

Complex systems have many interdependent parts that interact in different and unpredictable ways. Simple systems are easy to understand and predictable. Baking bread and tightening a screw are both simple systems. We know exactly how bread ingredients, or a screw and piece of wood, will interact because the outcome is always the same. If something goes wrong, it's because we didn't do something right. There are no surprises.

Complex systems, on the other hand, may have surprising outcomes as the system components adapt to one another. An organization is a complex system. So is Canadian society and its natural environment. Eventually, patterns emerge – like unspoken norms around work processes or cycles of rain and drought.

In a complex system, you usually can't see all the parts and their relationships. Causes and effects can be far apart in time and space – a decision made in a Toronto boardroom could collapse a river ecosystem in China. Outcomes can also be disproportionate to their inputs, making them much greater or less than the sum of their parts. For example, sometimes a team really gels and makes magic that none of the team members would have ever imagined. This is complexity in action.

Why Complexity Is So Paralyzing

The interconnectedness and unpredictability of complex systems make them seem unmanageable. The interactions of many parts can lead to an overwhelming number of possible outcomes.

It's easy to think that complex problems need equally complex solutions. But the “take on every detail” approach only overwhelms and prevents us from taking action, since we can't envision every scenario.

Complex System Interactions Can Have Many Different Outcomes

Imagine a city neighbourhood (one kind of complex system) is hit with torrential rain and flooding every summer without much government response. Many different scenarios could unfold. People could eventually get tired of the flooding and move away, lowering property values if neighbours follow suit. This would cause disinvestment, worsening the flooding problems as infrastructure damage compounds. Or people might stay and plant rain gardens, develop a neighbourhood early warning system, and start a mutual aid fund for those hit hardest. There are countless possibilities, depending on how people within the system react to one another and their environment.

Why Simple Rules Work in Complex Situations

It might seem obvious that simplicity should trump complexity. But, in complex systems, we can become overwhelmed by the noise, and we stop figuring what's signals and noise. Simple rules cut through that noise and offer shortcuts that help focus our attention.

Individual actions in a complex system can eventually form broader patterns that shape the system. Examples of such patterns are shared purpose in an organization or feedback mechanisms between starlings that help them travel together in brilliant formations without colliding. In such cases, simple rules make decisions easier – rules like whether to do X or Y, or how to coordinate a project's timing.

Can Simple Rules Really Help Manage Complex Situations?

History shows they can. For example, Pixar adopted two simple rules after the massive success of Toy Story: release a new movie every year, and always at Thanksgiving. These simple rules gave employees a clear goal and sense of urgency, while also leaving room for the artistic team to work at its own pace day to day. The rules also kept employees busy so they weren't waiting around between tasks on long movie projects. The result? Pixar has consistently released wildly successful films, like Finding Nemo and Monsters, Inc., while better using employees' time.

Simple rules help us navigate complexity in three ways. First, they allow flexibility to pursue opportunities, helping us adapt to curveballs. Second, they help us make better decisions quickly and with little information, as is often the case in complex systems. We can't see the whole picture, and things change so often that there is never enough time to fully think things through. Finally, they also help synchronize people's activities. In complex systems, successfully coordinating everyone involved can make big things happen.

There are six types of simple rules:

- **Boundary rules** help you decide what to do when there are two mutually exclusive options (should we do X or Y?)
- **Prioritizing rules** determine what is most important when there are limited resources (how should we allocate our resources between X, Y, and Z?)
- **Stopping rules** set when to end a process (when to stop doing X?)
- **How-to rules** explain how to do something (what are the steps of X?)
- **Coordination rules** determine how people can collaborate on a shared goal (how do we work together to do X?)
- **Timing rules** set rhythms, sequences, and/or deadlines (when do we do X?)

Applying simple rules works best when there are just a few rules. The rules should also be adaptable, leaving room for people to use their best judgment when putting them into action.

The Limitations of Simple Rules

Even though simple rules are powerful, they have limitations. The wrong rules can wreak havoc. Take Facebook's simple rule of "move fast and break things," for example. By not investing in safety mechanisms on its platforms, Facebook has indeed broken things – from the spirits of bullied adolescents to entire democracies.

And not all complex systems can be navigated with simple rules. Climate change, for instance, is so multifaceted that simple rules can't cut through it. Even pieces of the problem – like reducing carbon emissions or dealing with wildfires – can be too big for a few simple rules.

Finally, companies must be willing to change their simple rules. Perhaps the rules were wrong in the first place, or maybe times have changed. Be prepared to throw out your own simple rulebooks.

Citation: **Bansal, T., Miller, E., & Mascena, A.** (2023). Session 17 Briefing Note: Simple Rules For A Complex World. Innovation North, Powered By Ivey, London, ON.

**INNOVATION
NORTH**

Innovating for a better future.
innovationnorth.ca