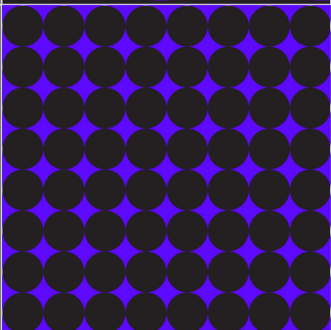
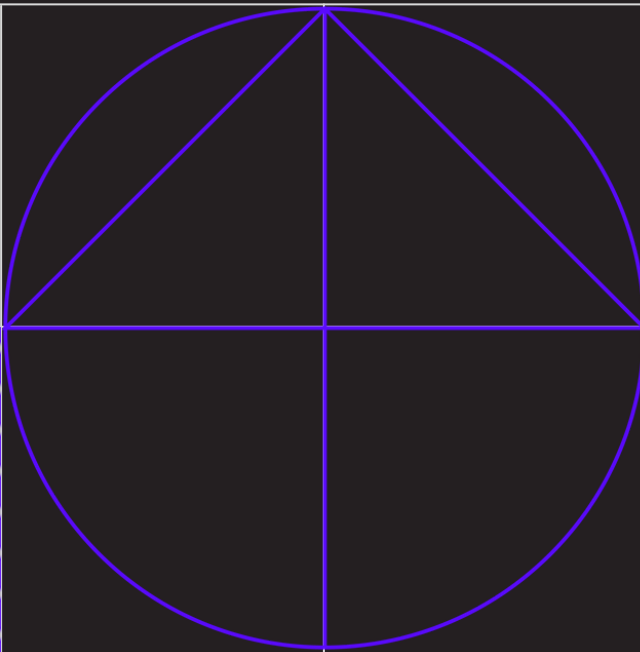
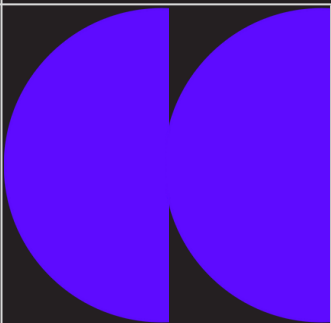


INNOVATION NORTH



Session 2 Briefing Note:

HOW TO SEE THE SYSTEM



Introduction

In the first Lab session, we explored when you should use a traditional approach to innovation (simple, complicated problems) and when you should take a systems approach (complex, chaotic environments).

This second Lab shifts the focus to you and your ability to see the whole system. We have systematic biases to favor the simple, but many problems benefit from also seeing the system.

In this briefing note, we recap the value of a systems approach to innovation. We then cover the following topics:

- Why it's difficult to see systems;
- How to overcome these difficulties, in order to mitigate risks and create opportunities.

Recap: Why Systems Thinking Can Benefit Innovation

As we discussed in the Lab 1 briefing note, systems thinking looks at the whole, not just the parts. It focuses on the interrelationships among 'things' and patterns of change, rather than 'snapshots' at a point in time. Traditional thinking assumes that problems can be easily defined, that the cause and effect can be easily traced, and the environment can be controlled.

"The more efficient you are at doing the wrong thing, the wronger you become. It is much better to do the right thing wronger than the wrong thing righter. If you do the right thing wrong and correct it, you get better."

Russell L. Ackoff

However, in this increasingly interconnected and turbulent world, these traditional models to seeing the world and innovating are becoming increasingly less appropriate. A systems perspective is a better lens.

A systems perspective recognizes that problems are messy and difficult to define, the outcomes of actions are unpredictable, and that one can only nudge a system, not control it. A systems perspective encourages people to take only a few coordinated actions, sustain them over time, and observe the system over the long term, not just the actions and immediate outcomes. A systems perspective focuses on the feedback loops at both local and global scales in the short and long term.

But, seeing a system is hard and even the best have failed to see system trends and experienced unintended consequences.

Systems Thinking Produces Lasting Outcomes From Your Innovations

Seeing the system is important for two reasons. First, it mitigates risks, as you can see the parts of the system that may be hidden from view. Second, it exposes opportunities that have more lasting impact because you see the global and long-term forces at play.

There are numerous examples of executives whose businesses have faltered because they failed to spot the systems trends. This dynamic is often called the “Kodak moment” – when the leading film maker in the 1980s missed the digital revolution. More recently, Blockbuster turned down the opportunity to buy Netflix in 2000.

Blockbuster video turns down the opportunity to buy Netflix

For much of the 1980s and 1990s, VHS (Video Home System) was the standard for consumer-level analog video recording on tape cassettes. However, VHS was expensive –\$US97 per movie– which led to the development of video rental stores, like Blockbuster. In 2000, Netflix offered to handle Blockbuster’s online business. Blockbuster declined and built its own internet movie business. Netflix was initially struggling and offered to sell its company to Blockbuster, but Blockbuster refused, confident of its own steep growth. Later that year, Blockbuster got a new CEO (formerly of 7-Eleven) who guided Blockbuster into retail and away from its online business. Within 8 months, Blockbuster had lost 85% of its value, and within 3 years, Blockbuster was filing for bankruptcy. As of April 2019, Netflix had over 148 million paid subscriptions worldwide.

When a company understands the system, it can change in anticipation of what is coming. Take the example of Starbucks, which is often acknowledged today for its efforts to respond to social and environmental concerns. Starbucks has had to reinvent their value proposition several times to retain its status among the world’s most famous coffee chains.

Why Is It Hard to See a System?

We find it hard to see the big picture because of our cognitive constraints and social processes.

We focus on the near term and on the ideas that are reinforced by our friends, families, and colleagues. There are two reasons why it is hard to see the system:

1. We use cognitive shortcuts to simplify our decision making;
2. We create social silos that limit diverse information.

We detail these obstacles and describe general solutions below.

Reinventing Starbucks again and again

Until the 80's, Starbucks only sold high quality coffee beans. In 1983, the company moved into selling coffee beverages to not only capitalize on the growing coffee business, but also shape that demand. Over time, Starbucks' margins started to shrink, so the company shifted from selling coffee to offering a coffee 'experience'. Again, in 2015, the anti-sugar movement made Starbucks redesign lighter and sugar free drinks next to their Frappuccino's most lucrative product. More recently, Starbucks is seeing growing concerns for the natural environment and rethinking the way in which it sources beans and treats its waste.

Cognitive Biases (Mental Models)

Over time, we tend to form 'mental models' or 'cognitive frames' of the world. These are built over time, through our experiences. Our parents, our upbringing, our social context, our education all help shape our mental models. These experiences help us build shortcuts to understand our world because they take less cognitive energy. For example, when we see a flat surface with four legs, we quickly label it as a table which has a specific function (eating, working).

These mental models let us synthesize a lot of information efficiently. We know this as 'intuition' and, when developed well, helps us excel at our jobs. Our intuition is critical in identifying threats and seeing opportunities and is seen as part of a healthy and successful work process.



Although mental models are efficient, they tend to limit our ability to see the system. Seeing the system requires us to be open to ideas and things that we normally screen out. We tend to consciously or subconsciously choose a narrow view of the world (see image in inset). One could argue that the world is becoming more polarized, in part, because our cognitive frames are becoming more narrow.

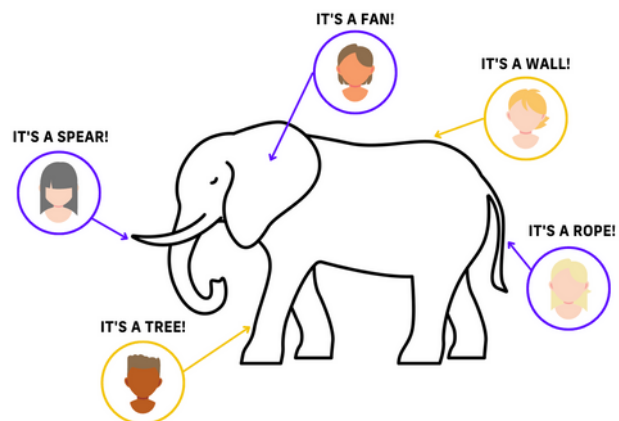
Mental models screen out unexpected information, which is especially problematic for people who seek to innovate. As a result, we can make bad decisions, as key threats outside of our cognitive frame are screened out. For example, Blockbuster's CEO failed to see the broader technological trends that ultimately led to the catastrophic failure of Blockbuster. Traditional approaches to innovation rely on some heuristics that favor stronger, proximate signals over weaker, global, and long-term signals.

A first step to overcome our cognitive biases is to be aware of the fact that we all have them. A second step to overcome our biases is working with people from different backgrounds, which brings different perspectives. We talk about this second in the next section.

Social Silos and Social Media

Humans learn from others. And, we learn more from others who are different from us. A diverse social circle widens our perspective and exposes other parts of the system. Take the fable of the blind men discovering an elephant (see figure in inset). Each man makes a mistake by seeing a different part of the elephant, but collectively they gain a sense of the whole. If we miss the big picture, we miss significant – often critical – opportunities and risks.

Even though we learn more from people different from us, we prefer the company of people similar to us. And, technology has enabled us to further narrow our social circles. It is becoming easier to find people who reinforce our own way of thinking, such as through friends, social media, and trusted advisors. It is becoming increasingly difficult to distinguish truths that apply to all from the truths that we fabricate in our social circles.



We can overcome these silos, by stepping outside our echo chambers, and finding ways to connect with diverse others. We need to find a way to widen social circles to introduce dissenting voices. But, it is not just a matter of bringing in those voices in our social circles, we must be willing to listen to them and overcome our cognitive biases.

How Do We Overcome These Barriers?

To understand complexity, we must understand our own cognitive limitations and social preferences. “One of the greatest opportunities to for lasting change arise when all the players reflect on and shift their own intentions, assumptions, and behavior.”

In order to shape systems, we need to make three important shifts:

- From seeing just part of the system to seeing more of the whole system –including why and how it currently operates as well as what is being done to change it.
- From focusing on individual events to understanding the stream of events and the deeper system structures that give rise to these events.
- From a narrow similar social circle to a wider set of informants with different worldviews.

Some of Otto Scharmer’s work describes the value of seeing the system. Scharmer proposed Theory U, which is one of several tools that helps to build systems awareness. It assumes that the quality of outcomes in any systems depends on the quality of awareness of the people in the system and describes distinctive stages to achieve systems change. He argues that we need to shift from my own “silos” and a “me” perspective, to a “systems” and “us” perspective. He says we should sense together and to make sense together. Only by attempting this shift through co-creation we can access to “blind spots”, overcome our biases, and innovate the system. This ego to eco shift is one of the greatest leadership challenges of our time and at the heart of the ambition of the Lab.

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