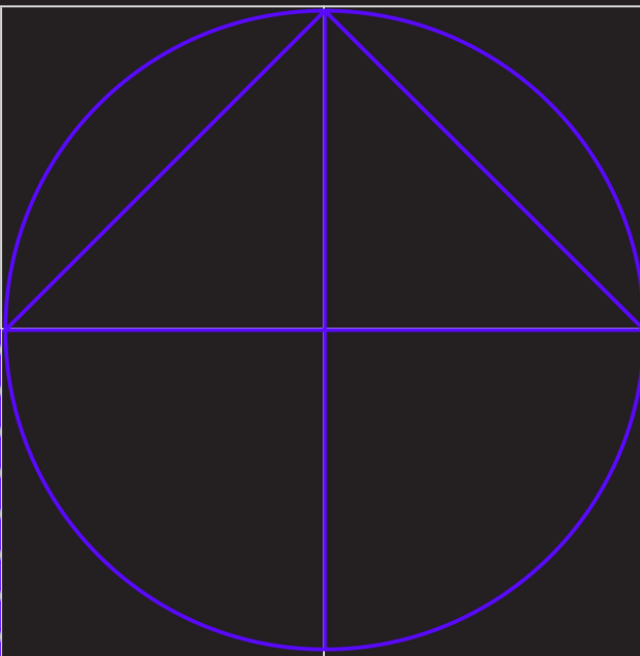
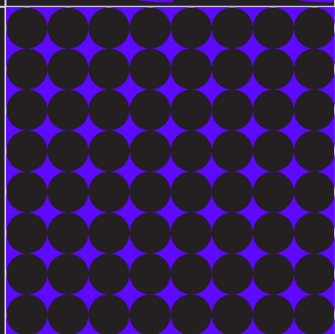
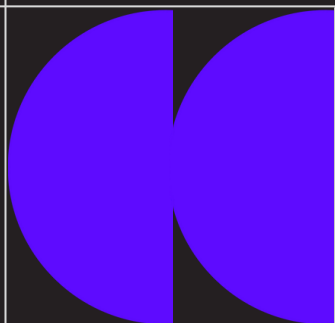


INNOVATION NORTH



Session 12 Briefing Note:

ACTING FOR SYSTEMS INNOVATION



Previous sessions of the Lab have focused on framing the problem, building awareness, and ideating. In the next session – Session 12 – we look at the acting side of systems innovation. This is where innovators translate their thinking into creative new products, services, or ways of doing.

Acting in a complex, interconnected environment can be messy. Innovators need to generate new ideas while facing rapid change and a myriad of risks. It's no wonder they are increasingly focused on either making small, incremental innovations or simply following others.

Skilled systems innovators can find simplicity in the complexity. This doesn't mean they randomly simplify. They extract simplicity by understanding the parts of the system that matter most and removing the parts that don't. They find the signal in the noise.

Let's illustrate with an example:

As COVID-19 restrictions started to lift in May 2022, airlines were in chaos. In Canada, they faced an unprecedented surge in demand while being understaffed, as many employees had quit during the pandemic or were on sick leave. Flights were repeatedly delayed and canceled. Air Canada and Toronto Pearson Airport's first response was to hire more people, but they couldn't find enough qualified candidates and didn't have the capacity to train new hires.

Two months passed before Air Canada finally saw the simplicity in complexity. Instead of trying to grow operations, they decided to shrink them. On June 29, CEO and president Michael Rousseau announced Air Canada would cut several of its flights. The decision relieved pressure on workers and prevented travelers from being stranded due to delays and cancellations. At the time of writing this briefing note, Air Canada had received public backlash from cutting flights, but it likely paled in comparison to the backlash from stranded travelers.

Seeing simplicity in complexity requires an ability to zoom out and see the big picture and then zoom in to identify the bottlenecks, risks, and opportunities. Zooming out and in not only helps to simplify complexity, but also to identify the actions that can change systems. Choosing what actions to take for systems innovation is not only analytical skill, but also intuitive.

In this briefing note, we describe the unique features of acting for systems innovation. In the Lab session, Banny Bannerjee will bring some of the principles below to life.

Systems-Informed Simplification, Rather Than Oversimplification

Our first Lab session spoke to the differences between traditional and systems thinking. We highlight some of them here to demonstrate how simplification differs from oversimplification.

Traditional thinking centres on short-term profits. It favours concrete numbers and measurable outcomes, and therefore tends to overlook risks and avoid uncertainty. Traditional business thinkers seek safe, high-probability bets, which tends to suppress creativity and innovation.

Systems thinking, on the other hand, shifts the focus of the innovator to the whole system, not the parts that comprise the system. Innovators first try to understand the system and then see how the firm can innovate profitably. Systems innovators do not prioritize the numbers, which give a partial and sometimes biased picture. They also listen to stories and insights from informed experts. Experts have deep, intimate understanding of the issue and live and work in the domain. Systems innovators are comfortable with uncertainty and ambiguity. They experiment, learn, and adapt.

You may know the parable about the drunk man looking for his keys under a streetlight when he knew he lost them somewhere else in a dark park. Traditional thinkers often focus on what appears in plain sight under the streetlight. Systems thinkers search in the dark park, but they do so carefully and with a different set of tools and approaches than traditional thinkers.



Original source unknown

Acting for Systems Innovation

How Systems-Based Actions Differ From The Actions Of Traditional Innovators

Most innovators see a new product or service as the final step of the innovation process. It's the result of months (or years) of data collection, analysis, and ideation. When the product or service is launched, the innovators wait with bated breath to see how it performs.

This approach is less effective in dynamic systems, which can't be fully known and are constantly changing. For example, car manufacturers know that an electric vehicle transition is coming, but they don't know which battery technology will become the industry standard. They need to bet on various technologies.

Systems innovators, then, don't see actions as outcomes of a long, protracted process. Instead, they use the innovation process itself as an opportunity to try out new ideas. They don't simply learn from behind a desk – they learn by doing. They are constantly alternating between learning and acting. And these actions aren't always major product launches. They can be communications, stakeholder meetings, and symbolic brand or identity changes.

How actions can help uncover systems insights: Co-operators investments in its communities

Co-operators, a Canadian co-operative financial services provider and Innovation North practice partner, has been investing in continuous learning through corporate citizenship. Their philanthropic activities support social wellness, economic inclusion, environmental resilience, and a co-operative society.

But Co-operators does not approach granting as donations to local charities. They seek to transform communities. They use their philanthropic activities as an opportunity to learn.

So, when Co-operators gives to local non-profits, charities and co-operatives, they ask their recipients to not just report on outcomes, but also reflect on learnings along the way. In this way, the recipient learns, Co-operators learns, and the communities are more likely impacted. And, Co-operators uses these insights to help them provide better insurance, investments and advice, all with their overall corporate purpose in mind – to build stronger, safer, more resilient communities.

Innovation expert Otto Scharmer said in our second Lab session that we can't predict outcomes. Our actions "nudge" a system, rather than trying to control it. Systems innovators look not only to change systems, but also to change themselves and their relationship to systems.

How Our Approach to Systems Innovation Differs From Most Approaches to Systems innovation

Most systems innovators talk about leverage or acupuncture points that can be instrumental in transforming the system. Battery technology, for example, is an important leverage point in the renewable energy transition.

However, most approaches to systems innovation fall into the trap of trying to find the "right" leverage point. This requires a deep understanding of the system, which is both time-consuming and subject to the biases of the people in the room.

We suggest that actions are best tested by people who have deep knowledge. They can discriminate between the signals that are important and those that are just noise. Jay Forrester of MIT points out that "although people deeply involved in a system often know intuitively where to find leverage points, more often than not they push the change in the wrong direction." We see this in the call-out box on the left about downsizing in financially hard times. In fact, companies can sometimes turn bad problems into catastrophic disasters.

The Downside of Downsizing

After the 2008 financial crisis, companies worldwide downsized their workforces. American firms alone laid off more than 8 million workers from the end of 2008 to the middle of 2010. Creating leaner, more efficient workplaces helped to control costs.

Yet, downsizing may save costs in the short term, but not necessarily in the long term. Zorn and colleagues investigated 4,710 publicly traded firms spanning 83 industries in 2019. They found that 24% of their sampled firms, including Ford, Petmed Express, and Regal Cinema, reduced their workforce by 3% or more in 2010.

After controlling for all possible alternative explanations, they found that the firms that downsized were more likely, not less, to declare bankruptcy relative to firms that did not downsize. The researchers found that firms that downsized lost valuable knowledge when employees exited and remaining employees struggled to manage the increased workload. Remaining employees also lost trust in management and became less engaged, loyal and productive.

Extracting Simplicity from Complexity

Develop “ecologies” of actions

Often companies look for a single new product or service that will generate their desired outcome, but this can come at a huge cost if it fails. Instead, systems innovators try a bunch of actions, many of them small, to learn about the system and mitigate risks. These small but numerous related actions are what we call “ecologies of actions”, or what Suncor calls “many horses in the race” (see call-out box). All of these actions move towards solving the problem or leveraging an opportunity.

Launch small probes

Especially initially, try launching small probes or pilot programs, rather than taking major actions. Peter Senge, in our first Lab session, described our complex world as a dark room where people should move in baby steps to learn around the room. He challenged the Zuckerberg idea of “moving fast and breaking things.” Moving fast with big actions can cost the company, employees, the community, and the environment; moving more cautiously with numerous small trials can reveal unknown risks and even new opportunities.

Actions are not just new products or services, but also activities that change your relationship with the system

It’s amazing how one small change in an organization can ignite major systems change, whereas other major changes can fail to produce even a spark. When Maple Leaf Foods started calling itself a protein company (instead of a meat company) or Suncor started calling itself an energy company (instead of an oil and gas company) or a car company

calls itself a mobility company, a whole new generation of products can be catalyzed. This isn't a new product or service, but a new perspective on how a company sees itself and is seen by others relative to the system. These symbolic changes can be as significant as new products and services.

Actions don't conclude the story, they simply mark the beginning of the next paragraph

The actions a company takes are just one step in an innovation journey. The company should consider innovations as an opportunity to learn and adapt on their journey for building products and services that are good for the firm and good for the wider system. Ecologies of actions help companies to learn about the system and develop increasingly better products. Apple's first iPhone was riddled with hardware and software issues, and had only a handful of useful apps, but each new launch has been a process of continuous learning.

Make systemic adjustments within the organization

When developing the action plan, don't consider only external actions, but also actions that align internal policies, processes, and practices to facilitate the desired effects of the actions. For example, when downsizing, organizations need to think about the impact of downsizing on the whole organization, such as its potential to erode organizational culture and morale, and respond accordingly. Peter Senge, in our first session, spoke to the tension between the organization's current capabilities and the needed capabilities to respond to the environment. It's important to think not just about what you do to change the environment, but also what you do to change yourselves in response to the environment.

Citation: **Mascena, A., Sharma, K., & Bansal, T.** (2022). Session 12 Briefing Note: Acting For Systems Innovation. Innovation North, Powered By Ivey, London, ON.

**INNOVATION
NORTH**

Innovating for a better future.
innovationnorth.ca