HOW TO GRAPPLE WITH DYNAMIC COMPLEXITY

Peter Senge, the author of *The Fifth Discipline,* points out human beings are experts at dealing with detail complexity but poorly equipped to deal with dynamic complexity. We are great at Cartesian thinking – dissecting a process or a machine into its constituent parts. But we are not wired to step outside ourselves and view a dynamic system of forces acting upon us and identify effective solutions. Our brains tend to fritz out!

It's our collective failure as human beings to grapple with dynamic complexity that results in what's known as the "tragedy of the commons." We have "common" resources that reasonable people would agree are in our collective interest to protect, such as clean air and clean water and natural habitat. Yet our brains are wired in such a way that we don't enjoy solving complex issues that would benefit multiple groups very easily. Systems thinking reveals the importance of these issues. Yet the tragedy of the commons continues. Why? In part because we are not equipped to grapple with dynamic complexity. So we stay fixed on simpler, more linear problems that we are better equipped to solve – to the detriment of addressing much weightier concerns.

That poses a challenge for building high-performing organizations. The world is getting more complex, not simpler. To lead at light speed means teaching people how to grapple with dynamic complexity. Here are some strategies for doing so:

- Create new sources of information to provide leading indicators about how your company or your industry is doing.

- Conduct independent interviews with your customers to understand how different customer segments perceive your company and the value you provide.

- Track how well your brand resonates with young people. These are your future customers.

- Shift the dynamic from "ignorance loops" to "learning loops" by introducing new forums for sharing information. Bring new data and research to the forum and ask people to talk about the implications.

- Balance your teams to include a healthy mix of systems thinkers and linear thinkers.

- Ask people to shift their focus to understanding causes rather than treating symptoms. Teach people how to map related issues and identify root causes.

- Hang up a diagram of the Circle of Assumptions, and ask people regularly to explain the data that led them to their conclusions.

- Root out distractions. Continually ask yourself: "What is the goal behind the goal? What do we want to achieve with this program? Imagine it fully realized. If we actually had this, what would it get us? How could we better invest our time, money, and people?"

- Create forums where people can share articles and books on systems thinking.

- Set up special "systems thinking" teams. Ask them to take a hard look at a particular process. Ask them to provide feedback and recommendations to fix any substitution fallacies, feedback delays, or assumptions of causality that might be introducing "noise" into the process.

- Teach people to minimize system delays. Set standards for response times and decisions.

- Make an authentic commitment to reduce or eliminate the negative environmental impacts of your products and services, and engage your employees and customers in the effort.

Once you start applying systems thinking to dynamic problems, you're more likely to find *leveraged solutions* that can result in quantum leaps in performance. For example, a major food supply company was having problems getting timely payments for the truckloads of food that departed its loading dock each morning. A team was formed to come up with a solution. Their insight, after applying the rules of systems thinking, was to rethink the location of the accounts receivable department. The accounts receivable people had always sat inside the Finance Department on the third floor. The team recommended moving the accounts receivable department to the loading dock.

The solution was brilliant. The AR staff quickly taught the people on the loading dock not to load goods before they were paid for. The move resulted in a quantum leap in financial performance.

Leveraged solutions result in big improvements in performance. They come as a result of a clear vision of the outcome, innovative thinking, and breaking down mental models. They are critical for building an organization that can move at light speed.