The Future of Work: Can Innovation Escape the Tyranny of the Hierarchy?

The latest entry in a special project in which business and labor leaders, social scientists, technology visionaries, activists, and journalists weigh in on the most consequential changes in the workplace.

SCOTT COOK SEP 21, 2015

The enemy of game-changing innovation is hierarchies. The bigger and more novel the idea, the less likely it is to survive the gauntlet of
bosses who must all agree—bosses who are most comfortable with what they know and only know the past. I don't think it's an accident that when software companies grow large, they have until recently become less and less innovative— think Microsoft or IBM or others.

Yet

Scott Cook is the co-founder and chairman of the executive committee at Intuit.

hierarchy is what folks in business live and learn. My dad learned it in World War II in the supply corps for the Seabees in the Pacific. The admiral makes the decision and tells the captain, who tells the commander, who tells the lieutenant, who tells the ensign and down the line what to do. Bosses in business pride themselves on being "the decision maker" and measure themselves by how much they have decision-making authority over. In other words, how many people they can tell what to do.

What I've seen at some firms I admire is something quite different. I call it decision by experiment. Young tech firms call it the lean

start-up. It's uncommon but not entirely new. And it's not limited to start-ups.

For much of the 1950s, '60s, and '70s Hewlett-Packard was the fastest-growing stock on the New York Stock Exchange thanks to its many game-changing innovations. What's intriguing is that these winning ideas came "from below and from the outside," as long-time HP veterans describe in *HP Phenomenon: Innovation and Business Transformation*.' Of seven major industries HP entered or created, the beloved CEO, David Packard, opposed six of them. But he drove a culture giving the lower ranks unusual freedom to experiment, to try their ideas, even when the hierarchy disagreed. Indeed, after an engineer defied and ignored Packard's order to kill a new product line, Packard awarded the engineer a Medal of Defiance, "in recognition of extraordinary contempt and defiance beyond the normal call of engineering duty." The product line turned into a huge success.

Another example: For decades I've been fascinated by how Toyota grew from a loom maker to become the world's preeminent automaker, first making vehicles at cost and quality that no one else could match and now making hybrid powertrains that no competitor can match. Its technology is making the second-generation Prius faster, bigger, and roomier yet delivering better mileage than the newer Honda Insight. Its technology is so far ahead that even Nissan, which hates Toyota, uses Toyota electronics in its hybrids. Sure, the company has a hierarchy, but it runs itself as a nested series of experiments.

In the Toyota system workers and

production supervisors are trained and told to test their own ideas. Toyota's principle is that the experiment, not the boss, drives the decision. Workers at all levels have two roles: to do the job and to improve how the job is done. Toyota wants assembly-line workers' minds, not just the worker from the wrist down. This "design work for the worker" gets the best workers to do the best work of their lives.

I wondered why Google beat Yahoo! at search. A Yahoo! executive told me that Google succeeded by installing the system and culture to decentralize decision-making to decision by experiment. Google's chief economist said that Google runs 3,000 to 5,000 experiments a year in search—when you use Google you're in those experiments.

When engineers joined the Google search team their boss told them: "We don't know what you're going to do but you'll figure it out. Here's your desk, here's how you enter code, here's

how you set up a test cell to run an experiment, here are the metrics with which we judge success—relevance and speed." The engineer was expected to figure out what to do. Moreover, when the engineer had an idea, he didn't need to get a "suit" to approve it (something engineers hate). They let the experiment make the decision. Innovators want to take their idea, build it and see it work. That's how Google "designs work for the worker"—in this case, for workers who are top computer scientists.

Most of the world—99 percent—still endures the tyranny of the hierarchy and struggles to drag the hierarchy toward the future.

In my view leaders for this, the Innovation Age, need to lead by practicing four principles. Four "hows" to unlock and enable the best people to do the best work of their lives. Four "hows" that move organizations to decision by experiment.

First, it's the leader's role to declare the "grand challenge." Larry Page at Google declared that his grand challenge, his goal, is search so relevant that Google will show users not a search results page, not a list, but answer to what they seek.

Second, only the leader can set up the infrastructure and culture for rapid experimentation. Making it easy for early-career workers to run experiments testing their ideas to address the grand challenge. Without having to fight for the right to try their idea.

Third, leaders must "savor surprises" that happen inevitably in experiments. Showing the organization how to learn from what didn't work as well as what did. "Wow, we never expected customers to do that" is the market speaking to you, trying to get you to discover what you don't yet understand. Discovery by experiment is key to game-changing innovation.

Fourth, leaders must live by the same rules themselves. Harvard Business School professors to whom Toyota "opened the kimono" tell me of watching two experiments run in parallel on the plant floor to improve production in a Toyota plant. One was the idea of the plant manager. The other was the idea of an assembly-line team leader. Even the boss' idea had to prove itself better in experiment. That's decision by experiment.

From my company's journey, I can tell you that these four "hows" are not easy. As John Kennedy said of quests like landing men on the moon, we do them "not because they are easy, but because they are hard." And, I'd add, crucial.

Think of yourself. Do you want to try your ideas, or just do what you're told? Do you want to work for the company that speeds your idea into test or for the company that places barriers in your way, forcing you to spend weeks and months selling and politicking? That's why too many of

the best and brightest bail from large organizations to the allure of start-ups. Innovative people move to where their creativity is allowed to flourish.

That's why large organizations need the lean start-up approach even more than start-ups do. That's why my company does too.

<p style="text-align:center">★ ★ ★</p>

For the Future of Work, a special project from the Center for Advanced Study in the Behavioral Sciences at Stanford University,business and labor leaders, social scientists, technology visionaries, activists, and journalists weigh in on the most consequential changes in the workplace, and what anxieties and possibilities they might produce.