

More Data, More Doubt

How “data-addiction” leads to more imitating not innovating

By Lanny Vincent

Just as “cloud computing” has made its way into our vocabulary, “big data” seems sure to follow.

Enabled by ever-more capable and abundant digital storage systems, access capabilities, and bandwidth, it seems big data comes with the underlying assumption that it is always better to have more data. After all, data is crucial to sustain any endeavor. Whether the data we amass is numerical, statistically valid, qualitative, or even anecdotal; the more data we have the better.

My own experience leading a team reinforces this. When I was managing a small team of consultants, data turned out to be essential in the team’s success. Actually, it wasn’t just the data that was so helpful. It was also its collaborative collection, frequent updating and visual display. Even in creative endeavors “connecting the dots” is often about seeing correlations between previously unassociated data points. Data is essential to both operating and innovating.

However, data is always *derived*. It comes from direct experience and observation. The biologist, chemist and market researcher alike generate data to prove or disprove their hypotheses. But it is their hypotheses that drive the generation and analysis of the data in the first place. And solid hypotheses come from personal observation and direct experience, infused with empathy and imagination.

Observation and experience may be more nutritious to innovating than data. Don’t get me wrong. Data and analytics are necessary contributors to every successful

innovating effort. But while innovating may be *informed* by data, knowledge-creation and understanding are *driven* by personal experience and direct observation.

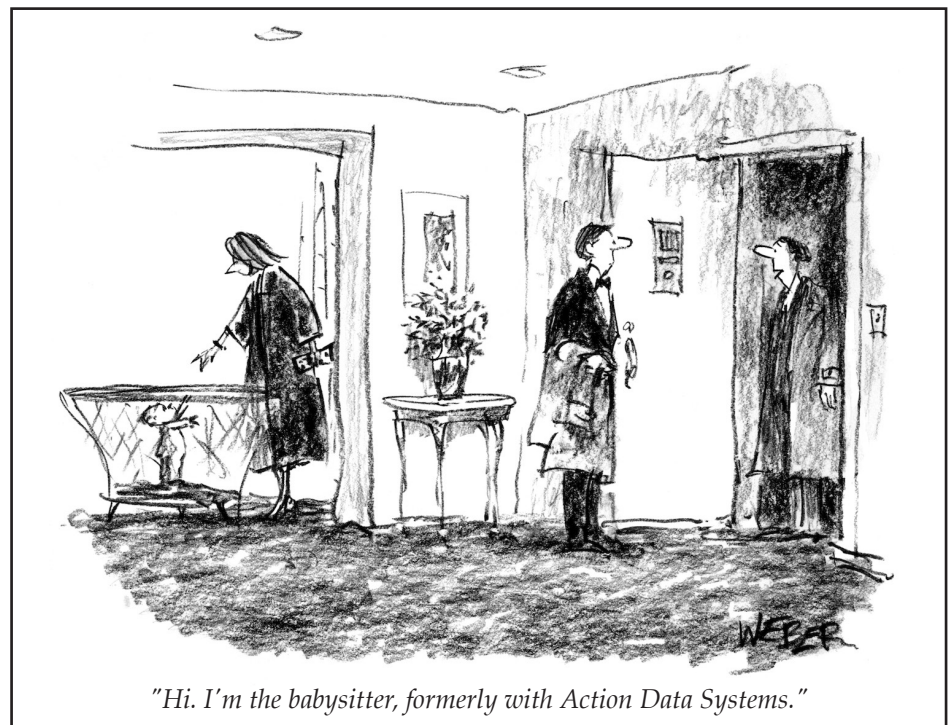
This might sound like an obvious observation, were it not for the fact that innovators are faced with an ever-present challenge: anticipate the future. Innovating requires lead times, sometimes long lead times. Innovators must innovate *in* the present but *for* the future. Delays require anticipatory behavior. Like hockey’s Wayne Gretzky, innovators must skate to where the puck is going, not to where it is.

The future looms large in the thinking and acting of innovators. But the future is always both “data-less” and “experi-

ence-less.” Innovators cannot rely completely on data or their own experience. Something else is required, something that “one person cannot directly communicate to another,” i.e., faith. (See *Prisoners of Hope: How Engineers and Others Get Lift for Innovating.*)

“Data-addiction” is one reason many hosted innovating efforts prove less than satisfying and never really get beyond “creative imitating.” If innovating is allowed to be driven by data, it will likely end up more imitation than innovation.

Just as the new is surrounded by considerable and unavoidable uncertainty, so also is the future. Uncertainty is perhaps the *Continued on the next page*



Ah. . .the perennial problem of operating mindsets applied to non-operating tasks. . .like innovating.

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future's signature. Attempts to avoid uncertainty by searching for assurance from more data can lead us away from innovation and toward incremental improvements. Improvements are not without value, but let's be honest with ourselves, they are not innovations either.

Recovering from data-addiction requires innovators to cultivate the art of advocacy—a phrase I learned from Larry Plotkin at Hewlett-Packard Company some 15 years ago. Plotkin, an innovating engineer, was taking part in a five-company study we were conducting on how companies manage to both operate and innovate at the same time. Plotkin was very clear about the need for innovators to learn the art of advocacy—what the ancient Greeks referred to as rhetoric.

Aristotle said rhetoric was comprised of three essential elements: *logos* (appeals to logic or reason), *ethos* (appeals to conscience), and *pathos* (emotional appeals). Lest you think ancient is “old and out-of-date,” consider the recent discoveries of neurology that suggest emotionless thought is a myth. All thinking is processed

through the amygdala, wherein emotions are “processed” as well. *Pathos*. And when innovators are directed to targets of opportunity, where the need is fulfilled with a compelling solution, little additional incentive is needed. *Ethos*. The examples of *logos* are legion. More recently, in his book *Changing Minds*, Howard Gardner (theorist of multiple intelligences) gives us a more tactical and practical look at what are essentially Aristotle's three basic dimensions of rhetoric.

Thirty years ago it was well understood that innovators would run into resistance from their own “host” organizations, not to mention, in the marketplace. In anticipation of this resistance, innovators were thought to need deep conviction—passion—if they were to have any chance of success. Today, I don't hear or see much of this understanding among my clients or in the literature. Have we become too reliant upon data, because we are not stretching ourselves enough. Perhaps we are not confident enough in our own convictions or appreciative enough of the courage it takes to innovate?

The remedy is not more data. Nor is it more

The Reading Corner

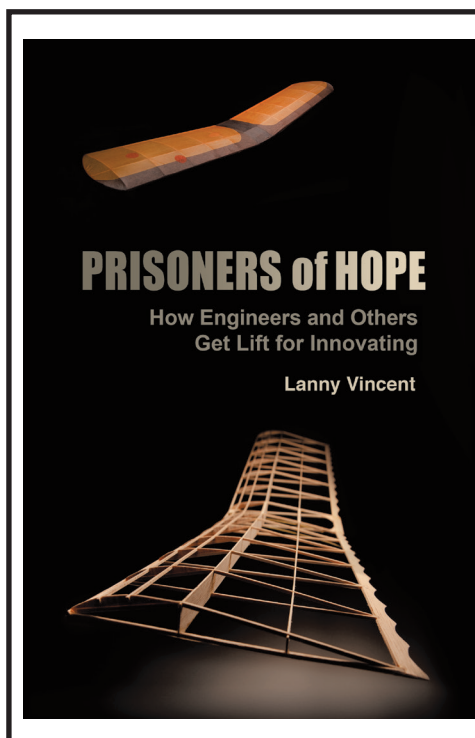
Clayton Christensen's article, *A Capitalist's Dilemma, Whoever Wins on Tuesday* (New York Times, 11-3-12), is one of the best pieces I have read recently on innovation, economy and metrics. It is clear, concise, and makes sense.

Christensen makes a wonderful distinction between empowering innovations (that create jobs), sustaining innovations (that keep the economy vibrant, but don't create jobs) and efficiency innovations (that free capital and reduce jobs). These are useful distinctions. He adds that leaders are doing what used to be the “right thing,” but it is no longer working because the context has changed. As a result, Christensen calls for a modified tax incentive to spur investment in empowering innovations.

Thanks to Karen Durkin who brought this article to our attention.

logos. We have plenty of both. Instead, the remedy is to bring to our unavoidable advocacy more *ethos* (conscience) and *pathos* (conviction). This requires innovators to be willing to go deeper into the unknown and let go of what we think we know. As Dee Hock, founder of VISA International, said in his book *The Birth of the Chaordic Age*, “the problem is never how to get new, innovative thoughts into your mind, but how to get old ones out. Every mind is a building filled with archaic furniture. Clean out a corner of your mind and creativity will instantly fill it. Once you got the old ideas out of your mind, new ones come automatically.”

Perhaps this is what we need to keep our heads out of the clouds (computing and big data) and to keep our feet firmly planted on innovating that works. □



PRISONERS of HOPE
How Engineers and Others
Get Lift for Innovating
Lanny Vincent

Prisoners of Hope: How Engineers and Others Get Lift for Innovating opens a unique window into the minds and hearts of engineers, revealing two characteristics that every successful innovator must have—faith and hope—and provides practical insights and fresh accounts of innovators doing what they do best. The book offers an inspiring description of how innovators use these patterns to get the lift they need for innovating, and a practical play on the power and potential of faith.

“Bottom line: Excellent book. Compelling, effective and very entertaining. Prisoners of Hope's unique approach to storytelling using biblical parables applied to the context of innovation processes. It is an engaging means of explaining how innovators perform. I do not recall any other treatment of innovation that is as distinct and effective as this.”

—Andrew T. Zander, PhD, Senior Director, Engineering,
Advanced Scientific Concepts, Inc.

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R. S. V. P.

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