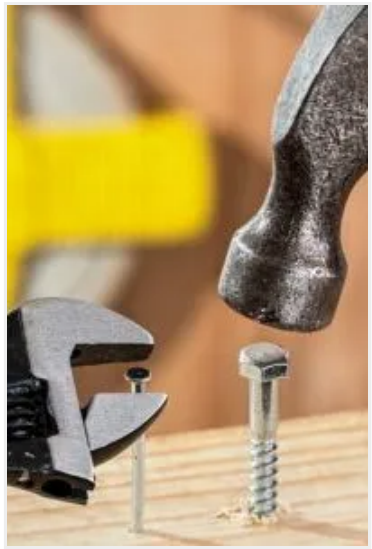
Don't Look For A Great Idea, Find A Good Problem

2017 APRIL 23

by Greg Satell

tags: Innovation, Leadership, Strategy



At the center of every significant innovation is always an idea. Clarence Birdseye's idea about freezing fish revolutionized the food industry and American diets. Charles Schwab's idea about flat commissions changed investing forever. Steve Jobs idea about creating a device that could hold 1000 songs in your pocket turned around Apple's fortunes.

Yet we shouldn't confuse a great idea with where it came from. Truly useful ideas don't arise from out of the ether or through fancy techniques like brainstorming or divergent thinking. The best ideas come in response to an important problem and thrive under constraints.

In researching my book, *Mapping Innovation*, I found that the most innovative firms often aren't any more creative or even that they are better at solving problems. Rather, it was how they aggressively seek out new problems to solve that made all the difference. The truth is that if you want to create a truly innovative culture you shouldn't glorify ideas, but problems.

A Young Boy's Dream

As a boy, Albert Einstein liked to imagine what it would be like to ride on a bolt of lightning. In many ways, it was a typical childhood fantasy. If he were born in another time, you could imagine him learning to speak Klingon or becoming immersed in the lore of the Jedi. Yet Einstein took the idea so seriously that it became the first of his famous thought experiments.

As he grew older and began to study physics, he learned that according to Maxwell's equations the speed of light was supposed to be constant, but according to Newton's laws if a boy riding at the speed of light shined a light forward, then the beam would travel at twice the speed of light.

Clearly, both couldn't be true. Either the speed of light was relative to absolute time and space or the other way around. As we now know, Einstein proved that the speed of light was absolute and that time and space were relative quantities. In other words, an inch is an inch and a minute is a minute only in relation to a specific context.

This seems incredible because it's so alien to our everyday experience, but today it's easily proven. Simply get in your car, turn on the navigation system and follow its directions. GPS satellites are calibrated according to Einstein's equations, so if you get to where you want to go you have, in a certain sense, proved the theory of relativity.

What's also interesting about Einstein's theory is that he didn't discover it in the same sense that Columbus discovered America. He didn't uncover a single fact that wasn't known to every working physicist at the time. His genius was to see a problem where nobody else realized that one existed.

A New Era, New Challenges

Every age comes with its own unique problems. For the past 20 or 30 years, we've mostly been occupied with finding new applications for technologies built in the 50s and 60s, like microchips, relational databases and the Internet. That effort spawned entirely new industries, such as personal computers, enterprise software and e-commerce.

Yet today, many of those old paradigms are running out of steam. Moore's Law is slowing down and will soon grind to a halt. Open software has created the need for updated database structures and the Internet has proven to be dangerously insecure. Solving each of these problems will create fantastic new opportunities.

Consider the case of quantum computing, which has the potential to be millions of times more powerful than current technology. A full-scale commercial version is probably still five

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to ten years away, but is already being tested in areas as diverse as medicine, financial services and artificial intelligence.

It will also create enormous problems to be solved. For example, it will render current encryption technologies obsolete, so business will have to invest in quantum safe encryption. Because quantum computers work fundamentally differently than classical ones, new computer languages and software protocols will need to be devised.

And that's just one example. Take a look at the Gartner Hype Cycle and you will find dozens of emerging technologies that will have an impact over the next decade. Each one comes with its own problems to solve and each of those problems represent new business opportunities. In some cases, entirely new industries will be created.

Seeking Problems Out

Anyone who takes even a casual look at the future can't help but be bewildered. These days, even teenagers can build websites and smartphone apps, but highly trained specialists struggle to understand the implications emerging technologies like genomics, nanotechnology and robotics. That presents a dilemma for business leaders: How can you plan for a future you can't predict?

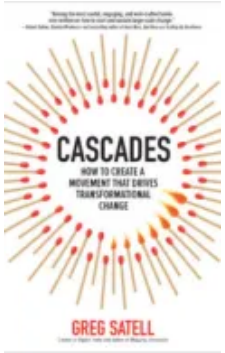
The simple answer is you can't and you shouldn't even try. Technology today moves so fast — and in so many directions — that anyone who thinks that they can truly see the future is just fooling themselves. But what you can do is uncover problems related to your business, your customers and in new emerging markets.

That's one thing that truly great innovators do differently. They constantly seek out new problems. IBM routinely sets up grand challenges, like beating humans at Jeopardy. Experian set up its Datalabs unit to identify problems its customers are having that they can turn into new businesses. Google's 20% time acts as a human powered search engine for valuable problems.

The truth is that it's more important to explore than predict. To create anything that is truly pathbreaking, you need to look for it in new places.

Moving From Strategic Planning To Innovation Planning

Management in the 20th century was, in large part, the art of strategic planning. You gathered information about markets, competitors and other trends and then planned



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accordingly. Strategy was like a game of chess. You planned each move in response to a changing board and in anticipation of competitors moves.

Yet today, technology cycles move faster than planning cycles ever could, so we need to take a more Bayesian approach to strategy. Instead of trying to get every move right — which is impossible in today's environment — we need to try to become less wrong over time. Essentially, we need to treat strategy like a role playing game, taking quests that earn us experience and artifacts along the way.

That means that we will need to plan differently. In addition to strategic planning, or planning based on things we know or think we know, we need to start innovation planning, or planning based on things we need to learn to solve new and important problems. That's how you quest. You don't plan the journey as much as you prepare for it.

And that's what makes ideas like those of Birdseye, Schwab and Jobs so great. They solved important problems that people cared about. So if you want to innovate, don't look for a great idea, look for a good problem.

– Greg

An earlier version of this article first appeared in Inc.com

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ROBERT HEIBLIM PERMALINK

April 23, 2017

How very true Greg, thank you. It is only the solved problems that denote innovation. There are many great ideas, but often they do not make impact while even small improvements to process, products or services can sometimes move the meter. Since that is what most want to accomplish your direction on problem solving is spot on. I would add that too much of the thinking on “innovation” occurs without the observation or discussion of the problem being solved or the people who would use or be affected by its solution. Big money can be made or saved by actually taking a look rather than opining inside four walls.

Greg Satell PERMALINK *

April 23, 2017

Excellent point Robert! Thanks.

– Greg

Bill Van Eron PERMALINK

April 23, 2017

Hi Greg, Great point of view. I have experienced the full range of problem solving but agree that when the focus is on ideas over deeper observation of real problems, they tend to be viewed as suspect, where there is no denying a properly understood problem. Truly my insights for HP proved as the biggest difference makers then that I often wish they learned to master today.

As one who is advancing system thinking as a soon to be recognized necessity for all who touch on a piece of a bigger problem, allow me to share one example of a growing problem that crosses several industry sectors. Because of that, it seems no one is owning it yet we all pay the price.

The problem can be defined as the growth of driver distraction to texting and mobile apps. Even though in most states it is illegal, it is routine to see most drivers on a device versus focused on the road. In just observing 8 cars turning on to a major thoroughfare here in Colorado, 7 were on their phones while doing so. Back in December a lady who was looking down on her cell phone app for over 90 feet, failed to look up to see all traffic had stopped so she crashed into my car and totaled it and I had a bad concussion…then months later a stroke…so I now resonate with the issue at hand.

So, how to solve this? The technologies exist but the solution crosses multiple systems including auto manufacturers, insurers, phone manufacturers, law enforcement, alliance management and social responsibility as just examples of what has to be considered as a system worthy solution. I won't elaborate further on how, but you may recall how management training forever seemed to push for leaders to isolate the problem. Well many of today's problems are not easily pinpointed when most cross industries or have a multitude of contributing factors. My point is there are many more challenges with these kinds of shared ownership, but that are the seeds of real innovation.

What I will close with is that when folks do get it, the realm of challenges we face today, boil down to value-based innovation that can unite cross industry players as one example, in ways that matter and that are predictable and sustainable versus all the angst about the future being unpredictable. I am skimming across a variety of deep topics here but hope this helps and that readers begin to strengthen their abilities to see the ecosystem defining almost every problem in a world of new abundance.

Good luck with your new book. Best, Bill

Mark PERMALINK

April 24, 2017

Malcolm Knowles in his work on how adults learn set about to revisit the term Andragogy coined by Alexander Kapp in 1833. It looks at the process of adult education. Knowles studied how adults learn differs from children. Adult learning, is self-directed learning, learning what they need to know, learning is based on experiences, and finally adults will learn when they are seeking a solution for a problem they are having. If you set out to understand problems adults are seeking to solve we can create solutions. http://infed.org/mobi/andragogy-what-is-it-and-does-it-help-thinking-about-adult-learning/

Greg Satell PERMALINK

April 24, 2017

Great points Bill! I hope you're feeling better.

– Greg

Ken Durand PERMALINK

April 24, 2017

Though I have enjoyed many of your columns over the years, I will have to say that this one may be the best of them all. I start every discussion with the teams I mentor based on learning what problem they are trying to solve. Until and unless you can understandably demonstrate that a problem exists and that your solution to that problem would be valued by a "customer" (using that term widely in this context); you have nothing. In my recent article in Innovation Leader, I make a very similar point in that the 'art of prediction of outcomes' is killing a lot of corporate innovation that has the potential to create breakthroughs.

Great points Greg, and I look forward to the book!

— Ken

Greg Satell PERMALINK

April 24, 2017

That's so great to hear Ken! Thank you so much for saying so.

– Greg

Greg Satell PERMALINK

April 24, 2017

Interesting Mark. That's for pointing that out.

– Greg

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