Overcoming the Innovator’s Paradox

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Jeff Dyer, Nathan Furr, and Mike Hendron

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The idea, the bigger the challenge in acquiring the necessary resources. Although many people say they like radical ideas, the greater the risk and uncertainty, the more skittish would-be supporters (investors, bosses, partners, and so on) become. Many great ideas die on the drawing room floor because entrepreneurs fail to persuade others of their potential. Before jumping in, potential backers want ideas to be proven or the uncertainty reduced in some meaningful way. The ability to overcome the innovator’s paradox is key to becoming a successful innovator, whether you work inside a company or are trying to launch a new venture.

How can you prove an idea can work if you lack the resources to start developing it? Even the leanest of lean startups needs a basic level of resources to test its ideas, and truly big ideas need more. In a world where more ideas than ever are competing for resources — whether that’s financial backing, good team members, permission to pursue an idea, or customers — innovators who learn how to win support are the ones who gain traction.

To understand how successful innovators and entrepreneurs go about winning critical support, we conducted more than 100 interviews. We spoke with well-known innovative leaders such as Jeff Bezos (Amazon), Elon Musk (Tesla and SpaceX), Marc Benioff (Salesforce.com), Shantanu Narayen (Adobe), Indra Nooyi (PepsiCo), Mark Parker (Nike), and Jeff Weiner (LinkedIn), as well as less-well-known innovators. The good news is that the capacity to win
support for your ideas isn’t something you have to be born with. Indeed, by leveraging the tools and practices we describe in this article, you can develop this skill. As Benioff, founder and co-CEO of Salesforce, told us, “My ability to generate innovations [for Salesforce] has basically built up over time.” Over 20 years, he has accumulated what he calls innovation capital, which has allowed him “to try new things — to change the organization, change the products, change what needs to be changed.” Benioff claims that as his ability to “try new things” has grown, his associates have built their own innovation capital that helps them sell their own ideas.

Politicians with political capital can get others to join them in pursuing their objectives; business leaders with innovation capital can attract the resources needed for innovation to flourish. Innovation capital consists of four factors: who you are (innovation-specific human capital — your capacity for forward thinking, creative problem-solving, and persuasion); who you know (innovation-specific social capital — your social connections with people who have valuable resources for innovation); what you have done (innovation-specific reputation capital — your track record and reputation for innovation); and the things you do to generate attention and credibility for yourself and your ideas (what we call impression amplifiers).

While all four elements contribute to one’s innovation capital, the first three are built over time through sustained effort. All of them are important, but in this article we will focus on the fourth element: the actions you can take now to win support for your ideas.

The Research

To examine the techniques companies use to win support for new ideas, the authors developed more than 50 case studies and conducted more than 100 interviews with innovators.

They reviewed academic research in a variety of fields related to innovation, including human capital, social networks, reputation, decision-making, cognition, communication, and persuasion.

In addition, they conducted a study on the relationship between innovation reputation and market value among S&P 500 companies.

How Amplifiers Work

On the surface, the impression amplifiers we heard innovators talk about are not particularly surprising. To the contrary, they include the types of things you might expect:

- **Comparing:** Finding the right analogy to convince supporters your idea will succeed.
- **Materializing:** Making an abstract concept tangible, visible, and real.
- **Storytelling:** Crafting a narrative that gives listeners a reason to believe.
- **Signaling:** Connecting to other credible groups that confer legitimacy on your idea.
- **Applying social pressure:** Creating a sense of scarcity (the feeling that people need to act now or they’ll miss out).
- **Committing:** Convincing others through a visible, personal, or irreversible action.

Although these impression amplifiers may sound simple, there is an art to using them well. Each one taps into a distinct and powerful psychological principle supported by research. Most of the innovators we studied didn’t consciously realize that they used these techniques. They seemed to intuitively recognize that when trying to win support for significant new ventures, they had to go beyond conventional tactics such as data analysis, financial forecasting, and strategic planning. To overcome the innovator’s paradox, they often relied on the impression amplifiers described here.

**Comparing:** “We’re the Airbnb of the X industry.” In 2000,
when Robin Chase cofounded Zipcar, an online service that
allowed drivers to rent cars for short periods of time, the
obstacles to success were massive. At the time, only 50%
of Boston-area residents had internet access, and only 25%
had mobile phones. Hardly anyone spoke about platforms
or the “sharing economy,” and there was little innovation in
the transportation sector. Prospective investors had a hard
time grasping why people would be interested in an internet-
based car-sharing platform. Many of them just listened and
nodded politely.

The breakthrough came when Chase discovered how to use
the comparing amplifier, drawing an analogy between her
idea and something people knew and saw in a positive light.
Initially, Chase thought she was using this technique
effectively: She described the business as car sharing. But
that comparison actually turned many people off. (Imagine
if you described the hotel business as bed sharing.) Chase
realized she needed a better comparison. To find it, she
carried around note cards and tested names and analogies
with people she met. Finally, she latched onto a comparison
people understood and liked: automated teller machines.
ATMs allow individuals to get cash whenever they need it.
Zipcar, Chase explained, “was like an ATM, but it’s wheels
when you want them.”

Armed with the right analogy, she started to win investor
support for her idea. “When I used the comparison ‘wheels
when you want them,’ investors finally got it,” she told us.
“Words really matter, and getting the comparisons right was
nontrivial.” In the end, Zipcar was sold to Avis in 2013 for
$500 million. But it might never have gotten off the ground
without the right comparison.

Comparing turns your idea into something people can relate
to and, ideally, get excited about. It draws on the psychology
of mental shortcuts (heuristics) and how we use analogies
to understand new concepts, form judgments, and make
decisions. In practice, research shows that startups that use
analogies and metaphors in their prospectuses achieve
higher valuations during initial public offerings.

How to use comparing. Our research suggests that effective
comparisons follow several key principles:

- The best comparisons capture both the opportunity and

the solution. The problem with Chase’s initial car-sharing
analogy was that it only described the solution and didn’t
excite people about the opportunity. Customers and
investors could relate to the ATM analogy and knew how
ATMs had revolutionized the banking industry.

- For any given idea, there are often multiple potential
benefits. So, when looking for the right comparison, see
what resonates with your audience. Zipcar, for example,
offered features such as convenient scheduling, booking
by the hour, and “green” mobility — but convenience
struck the strongest chord.

- Comparisons are especially valuable for complex ideas. If
we said that Ethnamed is a Chrome plug-in that allows
users to bind email addresses with crypto addresses, most
people would be puzzled. But if we said it’s like Venmo
for cryptocurrencies, potential users would more easily
understand it and see the potential value.

Materializing: Show — don’t just tell. When technology
entrepreneur Elon Musk founded SpaceX in 2002, no private
rocket company had ever won a contract from NASA.
Another rocket company, founded by billionaire Andrew
Beal, had recently filed for bankruptcy after failing to
persuade NASA to buy its low-cost disposable rockets. So
Musk, whose idea was to develop reusable rockets, faced an
uphill battle. Leaders at NASA, in Congress, and at large
aerospace companies saw SpaceX as a joke — a bizarre effort
by a Silicon Valley hotshot that was destined to fizzle. The
company struggled to pitch its ideas to key decision makers.
“At the beginning, we had to beg NASA to even pay
attention,” recalled Lawrence Williams, a former SpaceX
executive.

How did Musk break through the resistance? By showing
people what SpaceX planned to do — a tactic we call
materializing. On the eve of the centenary celebration of the
Wright brothers’ first powered flight in 1903, Musk loaded
a recently completed Falcon 1 rocket onto a gigantic trailer
and drove it down Independence Avenue and along the
National Mall in Washington, D.C., before parking it in front
of the National Air and Space Museum. He invited the
event’s attendees to inspect the rocket. The spectacle got
NASA's attention — and showed off what SpaceX was capable of building. The following month, NASA administrator Sean O'Keefe dispatched a team to visit SpaceX in Southern California, and they were impressed — so much so that the agency invested $140 million in 70 SpaceX flights over the next decade.

In essence, Musk advanced the idea of space travel by turning it into something tangible — in this case, a physical prototype. Because our brains prefer the tangible and visible over the abstract, people respond to visual objects and remember them better. Making abstract ideas tangible also makes them seem more realistic and believable. Research shows that entrepreneurial teams that materialize their ideas are less likely to fail, presumably because they are better at winning the support needed to turn the idea into reality.

**How to use materializing.** Being skillful at materializing is an art, and it’s essential to understand what your supporters will be looking for when you materialize your idea. In some cases, the critical question will be “Can it work?” and in others it will be “Will customers want it?” Materializing along the wrong dimension or in the wrong way can lead to problems — something the founders of Arrivo, a Los Angeles-based transportation startup, discovered the hard way. The company had developed an ambitious plan to build a high-speed system that would reduce traffic by transporting vehicles and people through vacuum tubes and tunnels. But the founders failed in their attempt to bring their idea to life. Their prototype was badly constructed, leading to test rides that were both slow and bumpy. Transportation officials soon lost confidence in the concept and withdrew their commitments. What can companies do to avoid similar mistakes?

- If the big unknown in your supporters’ minds is whether customers want your offering, focus first on materializing the demand as opposed to whether it works. For example, when Rent the Runway founder Jenn Hyman came up with the idea of renting designer dresses over the internet, it wasn’t clear whether women would rent a dress for a special event. So before setting up the logistics and distribution system, Hyman did low-cost experiments, first with physical locations and then online, to see how

women would react to renting dresses. The data convinced Bain Capital to invest in the venture.

- If the key question for your supporters is more technical — “Will it work?” — focus your efforts on meeting that requirement. For example, when the executive team at Caterpillar resisted a radical new way to create a hybrid heavy excavator that would use less energy than a traditional diesel excavator, Ken Smith, head of the heavy excavator division at Caterpillar, put the team to work, showing it could be done. Although the resulting prototype was so ugly that they called it Medusa, it worked, and it convinced executive leadership they could create a new excavator using 33% less energy.

- Materializing can be particularly important for radical ideas. The more novel the idea, the more likely that simply asking customers for feedback can mislead you. For example, many customers hated the abstract descriptions for such innovative products as the Aeron chair, Reebok Pump shoes, and even the iPhone. But when they actually tried these products, they changed their tunes.

**Storytelling: Triggering emotional reactions.** Soon after Vanessa Quigley finished describing her idea for a new photo-sharing service aimed at parents back in the fall of 2013, Gavin Christensen, the managing partner of Salt Lake City-based Kickstart Seed Fund, told his partners that he hated the product but thought they should invest anyway. How did Quigley convince a hard-nosed venture investor to get behind an idea he disliked? More than anything else, she told a good story.

Although many people have heard about the power of stories in business, few have the ability to use them well. In most organizations, stories are chronologies, mission statements, or thinly veiled manipulations. What made Quigley's different was her use of a narrative, with strong characters, conflict, resolution, and, most of all, emotion. She recalled the day when she found her 7-year-old son in tears over a photo scrapbook his kindergarten teacher had made for him. She described the guilt she felt — after all, she had hundreds of photos on her phone that she had never shared with her son or other family members. Based on this experience, she
created an app called JustFamily to make it easier to share family photos.

Christensen remembers being impressed by Quigley’s story but frustrated by the product itself. Each time he tried to use the app, it crashed. Yet when Quigley talked about the underlying emotions and the need to capture and share memories, he was swayed. “The need was so fundamental, and Vanessa made it so personal,” he said. “I knew that they would figure out how to solve it eventually.” The company, which now operates as Chatbooks, allows users to create printed scrapbooks with ease from Instagram photos. Within two years, the business had revenues of more than $30 million.

Successful storytelling triggers emotional connections that can prompt listeners to suspend disbelief and even to take action. Studies in neuroscience have shown that stories can cause the minds of storytellers and listeners to “sync” (that is, to develop the same brain patterns) and “couple” (connect and anticipate what the other experiences), an effect that increases your ability to persuade your listeners: Their brains literally start to match yours. Moreover, psychology research underscores how good stories can capture our attention, transport us to the world of the storyteller, and release brain chemicals that increase the likelihood of persuasion and action.

**How to use storytelling.** Although most leaders think they know how to use stories, there are basic rules many people forget. Effective stories are personal, create a narrative arc, vividly paint the opportunity or threat, and create an emotional connection. Master storytellers use several tactics:

- They develop a narrative arc, with characters, conflict, and resolution (the classic hero’s journey). For example, when David Hieatt, a successful advertising executive and entrepreneur, moved to Cardigan, Wales (population: 4,000), he was struck by the fact that the town had once been the center of jeans manufacturing in Britain. When talking about his new apparel company Hiut Denim, Hieatt found it effective to describe the failed jeans industry, the people who were left behind, and his quest to become a force for good by bringing jobs back to the area.

- They tie listeners into the story. Consider Alibaba’s Jack Ma. Although Ma had flunked out of school multiple times and failed at his first two startups, he was still able to convince investors to back his idea for Alibaba.com. He was particularly effective at getting both employees and investors engaged with his story by telling them about the company’s historic quest to create a better future for small-business owners in China by opening the frontier of the internet for them.

- To not set unrealistic expectations around distant or long-term objectives, storytellers avoid making specific claims and focus on more abstract promises.

**Signaling: Building legitimacy through others.** Over a decade ago, Brad Jones, an executive at Melbourne, Australia-based ANZ Bank, had an idea for addressing a serious problem affecting low-income people in emerging economies such as Cambodia. Many of these people were “unbanked” and thus were more likely to lose their cash, have it stolen, or pay big commissions to send money over any distance. Jones envisioned a mobile money platform that would allow the “bottom of the pyramid” to access the same benefits as people with bank accounts. Although Jones secured some initial funding for his Wing Cambodia venture from his bank just before the financial crisis, it faced the chopping block as the bank looked for ways to save money during the impending downturn.

In his efforts to find funding, Jones began reaching out through his social network and was able to convince ANZ Bank’s head of corporate social responsibility to feature Wing Cambodia in the bank’s annual report. He was also able to obtain a grant from the Australian government to support the initiative, which brought additional attention and legitimacy to the venture and helped insulate it at a time when other projects were being slashed.

Jones used signaling, which involves making connections — such as alliances, relationships, and awards — to build legitimacy and support for Wing Cambodia. Signaling works because of the human tendency to follow others we admire or see as experts. Research examining more than 1,000 startups found that if the startup had the endorsement
of a development organization (such as an incubator), its chances of receiving funding increased from 5% to 44%, even after controlling for the ability of the founders.  

**How to use signaling.** The goal of signaling is to prove to supporters that what you’re doing is legitimate — and that others believe in you. As you try to create these signals, keep in mind your audience and what signals they will find most valuable:

- Although signaling is often helpful, research suggests that it’s particularly valuable in the early stages of a project, when it is difficult to assess the project using more objective measures. Try to obtain endorsements, awards, or notable acknowledgments to increase your chances of winning support.

- Select the right types of endorsers for your project. When the uncertainty is tied to the technology (“Can we build it?”), it’s important to get endorsements from individuals or institutions seen as the “experts” (such as leading scientists). On the other hand, when there’s uncertainty around demand (“Will people buy it?”), you’ll want endorsements that can influence potential customers and create demand.

- Institutional endorsements can be more valuable and enduring than endorsements from individuals because supporters assume that institutions have done more to verify the legitimacy of your idea and are taking a greater risk by endorsing you. In the case of Wing Cambodia, for example, the institutional endorsements in the form of exposure in the bank’s annual report and the Australian government grant were more credible than the word of any one person.

**Applying social pressure: “Don’t be left out.”** A junior manager in a large organization was struggling to get his company to accept the use of robots for tracking inventory. He had done a lot of research on robotics and felt that there were now good opportunities to deploy them. But the company’s executives weren’t sold — most felt the technology was too immature and risky. So the junior manager tried a different approach: He convinced the CEO of one of the company’s recent acquisitions — a much smaller company — to test the robots in his stores. When the other, more skeptical executives heard about the experiment and the positive results it was generating, they immediately agreed to test it themselves.

Creating a fear of missing out (often known as FOMO) can help spur commitment from those who worry that if they don’t act quickly, they might lose an opportunity. It works on psychological principles tied to scarcity: People want things other people want, and they are drawn to items that are either scarce or difficult to obtain. In a famous study, researchers found that customers wanted a product more if they were told it had sold out. In the example above, the executives feared that other companies were moving ahead with the robotics technology, and they didn’t want to be seen as laggards.

**How to leverage social pressure.** Communicating a sense that time is of the essence can get reluctant supporters to move in the right direction, but you need to do this carefully. People skilled at using this impression amplifier apply the following tactics:

- Fear of missing out works best in competitive situations. Having discussions with multiple potential sponsors, employees, or partners in parallel (rather than sequentially) and letting them know that others are considering the opportunity can be very effective.

- Create the right circle of competition among backers. The purpose of using social pressure is to overcome potential supporters’ tendency to hold off on making a commitment until you’ve resolved all the uncertainties of the project. Research shows that having investors with profiles and orientations that are too similar can be a problem. You can overcome this weakness by going after sponsors who are sufficiently different from one another and don’t know how to predict one another’s behavior.

- Prep candidates in advance. Few people are willing to commit right away. It’s helpful to expose potential partners and investors to an idea multiple times before trying to get them to sign on. This approach has been
shown to work well. 17

- Don’t overplay your hand. Using fear of missing out should not be about creating false expectations or misrepresentation — that will backfire. Rather, it’s about using a competitive dynamic to get people to back your project.

Committing: Putting skin in the game. Denver Lough, a third-year resident at the Johns Hopkins University School of Medicine, faced a dilemma. Before beginning his training in facial plastic and reconstructive surgery, he developed an idea for generating new skin using a patient’s own cells. He had done some preliminary lab tests showing that the technology worked on mice and felt confident that the same approach would work on humans. If he took the idea to a major medical center, Lough thought he could get lab space and resources to test the idea. But the medical center would want a large equity position, and it wouldn’t be able to provide the resources needed to launch a company to commercialize the technology. Lough took his idea to a number of venture capitalists and angel investors. But the investors he contacted wanted too much control or weren’t willing to invest in the technology without human clinical trials and patents protecting it from imitators. Lough needed money to develop and prosecute patent applications, and to prove the technology.

Lough left Johns Hopkins early, forgoing future opportunities to earn in excess of $750,000 per year. Instead, he and a fellow resident, Ned Swanson, founded PolarityTE, a biotech startup that would develop Lough’s technology for regenerating new tissue. The fact that the two young researchers were willing to take the risk proved critical to their ability to attract investors and key talent. As one investor noted, “They were willing to get up and leave and lay it all on the line, even when they were so close to finishing that they could see the light at the end of the tunnel. That said a lot.”

Committing involves standing up for an idea or project you believe in and showing other potential supporters that you are willing to put skin in the game. This might include investing your own money or giving up an attractive employment option. Making a big — perhaps even irreversible — commitment to a project gets people’s attention and boosts the likelihood that others might become backers as well. Committing is particularly effective when the innovation is complex or when details cannot be fully revealed because the innovator wants to protect trade secrets. The psychological principle of loss aversion (when the desire to avoid losses has a stronger pull than the opportunity to achieve the equivalent gains) suggests that we don’t expect people to do things that will lead to big losses. 18 Indeed, it’s assumed that those willing to take major risks are confident they’ll be successful, perhaps because they know something we don’t know.

How to use committing. Using committing well requires some care. We don’t typically recommend that you bet the farm (after all, what happens if things don’t work out?). So here are some tactics to show people you are confident without risking everything:

- Create credible commitments, ideally with your abundance rather than your scarcity. For example, in the early days of Tesla, investors were skittish about investing in Musk’s bold and expensive plan. However, when Musk offered to fund the company with his own capital, others joined in, believing that his willingness to bet his own money meant he was confident the business would succeed. (We should note that Musk had plenty of capital to work with; unlike many other innovators, it’s doubtful he was putting his family or his future in danger.)

- Have a plan B. Although commitment involves sending a strong signal, you shouldn’t paint yourself into a corner, in case things go poorly. In scratching below the surface of seemingly “irreversible” commitments, we found that innovators often had a plan B. Lough, for example, wouldn’t be able to return to his residency at Johns Hopkins. But he knew his skills would have value at other medical institutions or biopharma companies if the venture didn’t work out.

The successful innovators we studied, including those who have built highly successful organizations, started with a creative idea. But they quickly learned that creativity was not enough. “Ideas are easy in many ways, and there’s no
shortage of great ideas,” Nike CEO Mark Parker told us. “It’s the ability to bring those ideas to life and at scale that becomes important.” Parker understood that successful innovation requires resources, and persuading others to commit those resources is no small task.

To promote their innovations, effective leaders rely on a set of tactics to gain attention and credibility for themselves and their ideas. Successful entrepreneurs and innovators everywhere face the innovator’s paradox: They need to convince others to back risky ideas that may ultimately flame out. Although all of us can build up human, social, and reputation capital over time to win support for our ideas, in the short term we must learn to apply other techniques to shore up our innovation capital so that we can assemble resources that can turn creative ideas into reality.

About The Authors

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References

1. The term “innovator’s paradox” is inspired by Nobel Prize-winning economist Kenneth Arrow’s description of the information paradox, in which the seller of information can convince the buyer of its value only after it has been fully disclosed, at which point the information has already been transferred to the buyer, who hasn’t paid for it. In an analogous manner, we argue that innovators struggle to convince the buyer (investors, customers, supporters) to support a new idea before the uncertainty associated with the idea has been resolved, at which point it is no longer a risk and thus support would be easy to come by.


17. Ibid.
