

# Reaction Wheel

Jerry Neumann's Blog



Uncategorized

## Disruption is not a strategy

📅 MAY 27, 2016    👤 JERRY NEUMANN

I was at a research lab to talk about commercialization. The presenter put up a slide of some exciting new technologies. The slide's tagline said these technologies would "disrupt the biomedical industry." My first thought was that disrupting the biomedical industry—"to interrupt by causing a disturbance" or "to drastically alter or destroy the structure of something"—is probably the exact wrong thing to do to an industry that keeps us alive and healthy.

I'm not the first person to note with some pique that the word "disrupt" is overused and misunderstood. Technological disruption has gone from an interesting way to illuminate the workings of the innovation machinery, to an imprecise strategic crutch, to a magician's misdirection, to, now, the cargo cult of technology commercialization. Cargo cults are fascinating because they mirror our own tendencies to confuse cause and effect, but they have real costs. They misdirect resources to ineffectual ritual from actual problem-solving.

There are better ways than disruption to think about whether you can succeed at building a business with a new technology. In fact, there are few worse ways.

### Disruption

I'm sure what the presenter of the slide was getting at was Clayton Christensen's definition of disruption from his classic book *The Innovator's Dilemma*. In Christensen's terminology, a disruptive technology is one that costs less than existing technologies and has subpar performance by the domi-



nant standards, but performs well along a dimension that the existing market has little need for. His primary research was done on the disk drive industry, where the dominant metric of performance improvement was storage capacity. New companies repeatedly disrupted the existing market by introducing disk drives with less storage capacity but smaller form factors. Incumbents were so motivated by the needs of their existing customers to increase capacity that they ignored nascent markets where new customers needed something else. New companies could enter this new market without competition from well-resourced incumbents and get enough traction to fund the improvement of their technology along the dominant metric. They then started peeling customers away from the incumbents. The incumbents were chased further and further upstream until they ran out of customers.

This is the definition of disruption that innovators try to associate themselves with, and for good reason. A disruptive innovator has a chance to replace the large, entrenched companies that dominate their sector. Competing with Google or Apple or Amazon is daunting and if you can't think of a recipe for winning then you might latch onto disruption as your savior.

But even disruption as defined by Christensen does not really apply in the life sciences business. New biomedical technologies very rarely completely replace existing ones or chase incumbent life sciences companies out of the business.

*[T]he history of the drug sciences revolution is very much one of successive "waves" of new technology that rise up and later become adapted into the flow. Recombinant DNA and MAbs represented the first waves of biotechnology that came on the scene in the late 1970s. Many predicted that new methods of making drugs based on genetic engineering would replace traditional "old" medicinal chemistry. This has not happened; moreover, it now turns out that medicinal chemistry and genetic engineering are complementary. This pattern has repeated itself over the subsequent thirty years, with the emergence of rational drug design, combinatorial chemistry, and high throughput screening; then genomics, proteomics, and more recently, systems biology and RNA interference. Each new approach emerges from science and initial expectations (and hype) are that this one is "the real deal" and will dominate. But there has been little replacement of old with new. Instead, the new technologies, as well as the even newer ones, coexist with the old. Furthermore, it appears that they do not operate independently; rather, they are highly complementary.<sup>1</sup>*

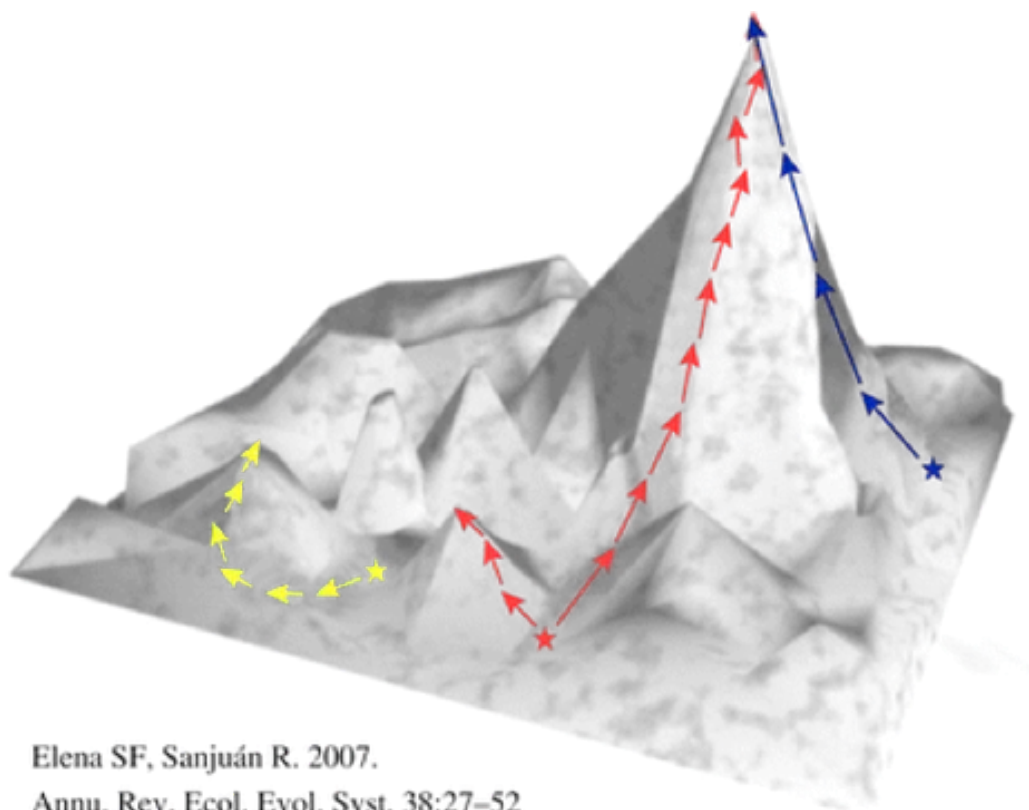
Even outside the life sciences field, new technologies rarely completely change the structure of existing markets, although they often alter them, evolve



them, or even create new markets. And at successful companies that did drastically alter a market, the original intent was not usually to “disrupt”, it was to create something new. Google, despite the radical changes it brought to so many markets, set out to create something, not destroy anything. Disruption isn’t everything.

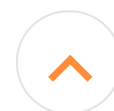
## Pure Technology Innovation

As a tool for thought experiments in innovation the biomedical business is especially valuable because it lies on one end of a primary innovation dimension. Every innovator is trying to find a match between some under-solved problem and some technology. Imagine a two-dimensional space of possible companies where the x-axis is technology and the y-axis is the problem being solved. Each (x,y) point has a value we can call ‘fitness’: how valuable a company using that technology for that problem is. If the fitness is noted on the z-axis, this is called a ‘**fitness landscape**.’ An entrepreneur searches the fitness landscape for a good idea, iterating along the x and y dimensions, looking for a peak in the z-axis: “is there a problem this technology can solve better?” or “is there a technology that can be used to solve this problem better?” In the first, entrepreneurs know the technology and are looking for a problem; in the second, they know the problem and are looking for a technology. Usually you do a little bit of both. But the biomedical business is at one end of the spectrum, it’s pure technology innovation.



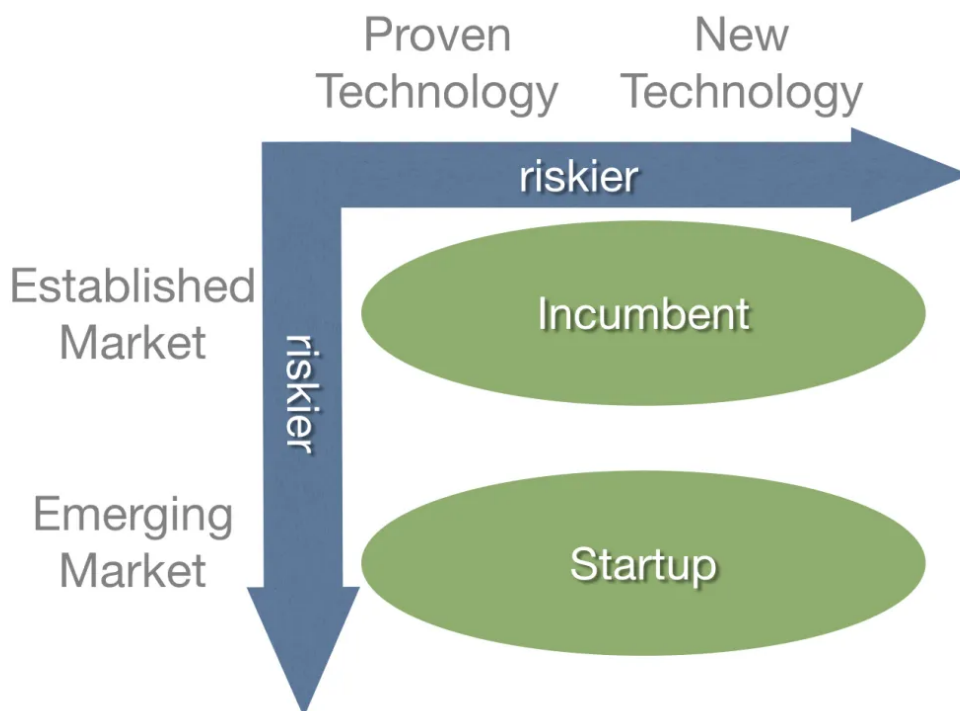
Elena SF, Sanjuán R. 2007.  
Annu. Rev. Ecol. Evol. Syst. 38:27–52

A FITNESS LANDSCAPE SHOWING HYPOTHETICAL TRAJECTORIES OF THE EVOLUTION OF VIRUSES



The keeping-people-alive-and-healthy business is one of well-known problems. Jonas Salk did not have to look long and hard to know that polio was a problem worth solving: the problems of sickness and death are evident. The difficulty in this market is not finding a problem, it is finding a technology that solves that problem.

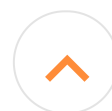
Christensen notes that new companies disrupt incumbents not when they introduce new technology, but when they help create new markets.<sup>2</sup>



The biomedical industry occasionally has new markets, when a new disease surfaces or the like. But this is not the driver of innovation in the field: most new ideas are not in response to new markets, they are the result of new technologies. Christensen's theory says that none of these are disruptive and very few can survive. His theory says that innovation would be monopolized by incumbents, who would latch onto technological innovations and squeeze out new companies.

But there *are* new and successful companies in the life sciences field. According to the [NVCA](#), in 2015 about a fifth of the venture capital dollars and more than a fifth of the companies funded were biotech, medical device, and healthcare services companies. I would venture to guess that few of these companies were formed to address a new market<sup>3</sup> they were using new technology to solve an existing problem. And yet they were successful enough to raise venture capital.

Christensen's theory of disruptive innovation does not cover this. And if it doesn't cover new-tech-only startups, then it can at most only partially cover



companies somewhere on the spectrum between new-tech-only and new-market-only.

## Pure Market Innovation

What about the other end of the spectrum, pure market innovation? Companies that are using proven technology to create new markets? The companies here are familiar. Square, for instance, provided credit card processing to businesses that used to be cash only. There was no new technology here (Square was founded in 2009, well after the smartphone stopped being new.) There was *innovation* of course, Square used a novel combination of technologies to solve a problem, but it wasn't really technological innovation. Uber is another example. There is little reason Uber could not have been started ten years earlier than it was: a feature phone interface might not have been as snazzy, but it would have been about as functional. The technologies Uber deployed—mobile phones, logistics, a marketplace—were not new in 2009. Instead, Uber opened up a new market.

But neither of these companies were disruptive in *The Innovator's Dilemma* sense. Neither was cheaper and less functional than what they were replacing and then remained cheaper as functionality grew. Merchants that adopted Square early on did not do so because it was cheaper than the alternative, they adopted it because they finally had a viable way to accept credit cards; for most of them it was more expensive than their previous way of doing business (cash) and more expensive than what the incumbents would have provided, if the incumbents had provided them anything. The key difference between what Square did and disruption is that Square did not open a new market by bringing the cost down into the reach of an entirely new set of customers, they served a small set of customers that the incumbents simply didn't care about because it was a small market. This is not disruption, it's classic market segmentation.

Nor did people adopt Uber because it was cheaper. Neither set of customers—the riders or the drivers—saved money from using Uber. Riders use Uber because it's easier to hail a taxi that way, not comparative cost. Drivers use Uber because it's more attractive than driving a taxi, not comparative pay. Both of these are an indirect result of taxi regulation. Again, this is not disruption. The new market was available because Uber first ignored, then lobbied to change, regulations that made that market seemingly unavailable to new entrants.

Neither of these companies is covered by Christensen's theory. In fact, if we go down the [list of Unicorns](#), not many actually fit Christensen's definition. Airbnb? OK, I'll buy that. Palantir? No. Snapchat? No. SpaceX? Maybe someday. Pinter-



est? No. Dropbox? Sort of. WeWork? No. Spotify? No. Etc. Generally, you could make an unambiguous argument that 5% are disruptive, and a tortured argument that another 45% are. The rest? They're just not disruptive. And yet they all seem to have a so-far successful strategy. Why, then, does everyone always talk about disruption?

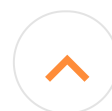
## Disruption as a strategy sucks

Christensen's theory is vague. What is a new market? What does cheaper even mean? But the bigger problem with the theory is knowing what to do with it. You read the book, you want to start a company...what exactly does the theory advise you to do to create a disruptive company?

You can't decide to start a disruptive business. You can't take Christensen's theory and use it to churn out disruptive companies. Don't believe me? Try it. Cable TV, for instance, is too expensive and provides more functionality along a specific axis than most customers need. If you can think of a way to disrupt it, then why aren't you doing it? It's a giant pot of money *just sitting there for you and Clay Christensen to take*. None of the millions of people who have read *The Innovator's Dilemma* has taken that pot of money because the theory doesn't say how.

Christensen's theory is descriptive, not prescriptive. It names a process but does not tell you how to generate that process. You might know disruption when you see it, but you only know it after the fact. You can't know beforehand that if you create a new market it will grow big enough to sustain your company while you improve the quality of your product until you can go after the established market. You can't know beforehand because, as Christensen himself notes, "markets that don't exist can't be analyzed."<sup>4</sup>

Here's a thought experiment: put yourself in Steve Jobs' shoes in 1976. You have a personal computer to sell. How many people will buy it? Steve Jobs thought every home in America would have a personal computer. He was low by an order of magnitude (it now looks like every *person* will have three or four.) Other observers at the time thought the potential market was far, far smaller ("There is no reason anyone would want a computer in their home." said Ken Olson, founder of DEC, in 1977.) Whatever seems obvious in retrospect, there was no way at the time to know how big the PC market would be, how fast it would grow, or if it would sustain one company, much less the dozens that entered it. Disruption isn't much of a recipe if it still leaves you with the fundamental risk of every startup: will there be a market for what I'm selling?





So why is Christensen so popular if his theory can't be put to use? Well, because it can. Just not by you. We are not Christensen's target audience. *The Innovator's Dilemma* was written as a warning to the managers of large companies, the incumbents, not as an instruction manual for startups. For bigco executives, it was a much-needed wake-up call: watch out for those little companies going after the customers you don't want with technologies that look like toys, they could grow up to displace you. Christensen was not writing to the founders of those little companies on how to disrupt those big companies.

Startups can win even when they are not 'disruptive.' Intel, after all, did not enter the microprocessor market by intentionally introducing a cheaper general purpose computer, they entered it by introducing a much more expensive slide rule...the 4004 was developed to power electronic calculators. The market for electronic calculators was small, allowing Intel the room to build expertise in CPUs, but Intel's entry can't be described by Christensen's attack from below process unless you take into account facts not then in evidence: that CPUs would be used to build general purpose computers. Finding a foothold market for a new technology gave Intel the time and space to explore other potential markets for the technology, and even though the strategy itself was not disruption, Intel was successful.

*The Innovators Dilemma* is a traditional corporate strategy book. It talks about how to recognize threats, how those threats might play out, and how to defend market share you already have. It is not entrepreneurial strategy.

## Entrepreneurial Strategy

Most advice to entrepreneurs is tactical. You need a good idea, a good team, a good product, and a good business model. You should interview potential customers, size the market, build a MVP and iterate. These are all tactics. Strategy is the route on the map, tactics are the means of travel. Tactics are more important in the near-term, but strategy is far more important if you want to go the distance.

Every entrepreneur's long-term question is: how do we get to be a dominant company in a big market? Answering that question provides you with a strategy. Finding a big market is the part most entrepreneurs focus on. But becoming dominant in it is usually neglected: either taken for granted ("we'll win because we're better") or assumed to be beyond control ("someone will take this entire market, it might well be us.") A good strategy will guide you to becoming the dominant company, and a key component is outlining how you will deter or delay competition as the market grows.



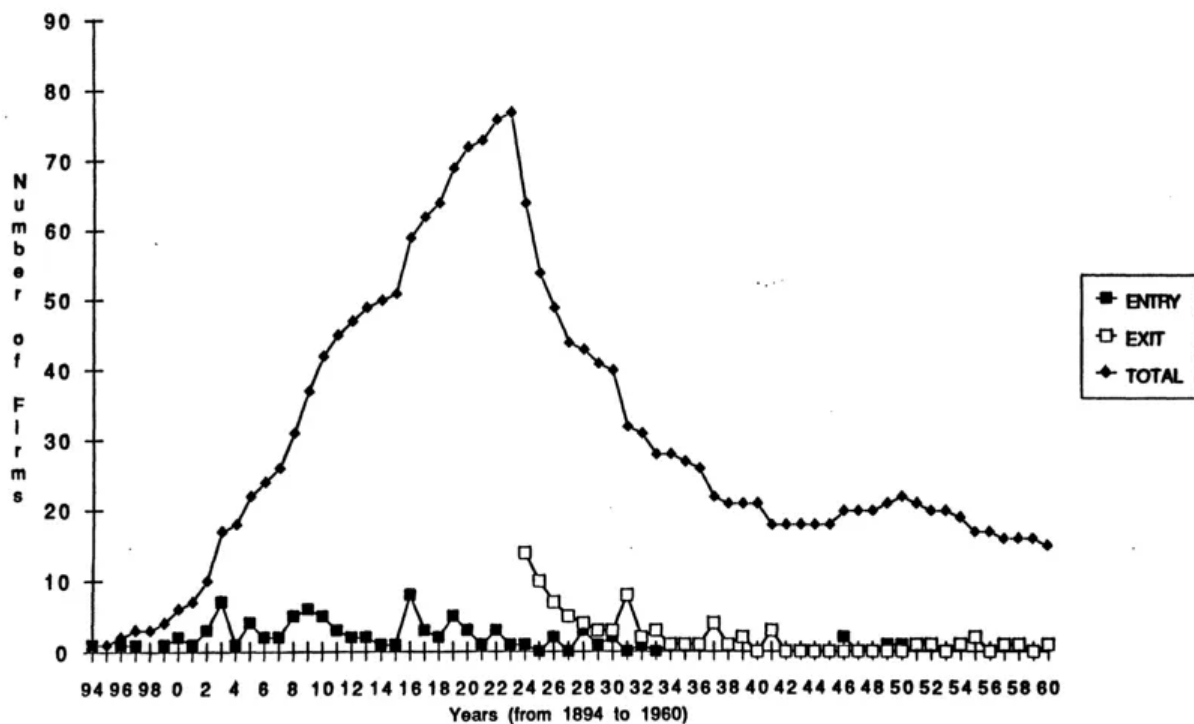
Big companies will compete with you once you show them the way. They pay attention to small companies who are doing interesting things, and especially when they're doing interesting things in a rapidly growing market. Big companies won't have any qualms copying your business idea and plan if they can. The former president of PepsiCo once wrote an article on innovation in the Harvard Business Review where he said:

*...most of PepsiCo's major strategic successes are ideas we borrowed from the marketplace—often from small regional or local competitors.<sup>5</sup>*

Apparently, “borrowing” someone else’s idea is considered innovation at big companies. You need to protect yourself.

And, or course, once you start to show signs of success, you will engender many competitors.

**Figure 2. Number of Firms Participating in the Auto Industry in the U.S.**



SOURCE: UTTERBACK, J., & SUAREZ, F. (1993). INNOVATION, COMPETITION, AND INDUSTRY STRUCTURE. RESEARCH POLICY, (DECEMBER).

There are many strategies to deal with this, a blog post is too short to describe them all.<sup>6</sup> I'll outline some key factors that go into a good strategy, but keep in mind that strategies are different for each company and depend heavily on the market you're going into, the resources you have, and the competition you may face. You need to think about these things before you can start formulating a strategy.





As a quick example, and an apology to Christensen, let's look at disruption. If, as a starting-state, you have an already large market where the incumbents (because there have to be incumbents for there to be an already large market) have over-provided their customers with whatever customers consider quality, and you have found a technology that you can provide more cheaply that has some ancillary quality, and you have customers who need that ancillary quality and don't really value what the market currently considers quality, then your situation might well be Christensen's disruption. Your strategy then should be to use the revenue from the new customers to fund furious improvement of your technology so you can eventually drive the incumbents out of the existing customers and be dominant.

This starting-state of affairs is unusual and very difficult to see until the company is already in business, as we discussed. If you're waiting for these exact conditions, you'll probably never start a company. But the reasons it works—you can keep competitive intensity low in a small market until you're able to compete better than anyone else in a market you already know is large—highlight the two key strategic goals we pointed out above: big market, ability to become dominant. By recasting Christensen's scenario this way we can articulate a way to build these companies. Christensen has a warning, we have a strategy.

Some other factors to take into consideration as you form strategies:

**Intellectual Property:** Pharmaceutical companies can enter existing markets, well known to incumbents, because they have new technology. And they can prevent competitors from replicating their technology with patents. Patent protection is valuable in industries like the pharmaceutical industry, where it takes an enormous amount of time and money to find a compound that solves a problem but where that compound is easy to make once known. They are less valuable when the unknown is not how to solve a problem, but which problems are worth solving and for whom.

**Continuous Innovation:** There are other ways to prevent competitors from copying your product. The best is to keep making it better. It would be relatively easy to build a search engine to compete with Google if Google still used the algorithms they used ten years ago. But Google took advantage of the stagnation of their competitors circa 2000, built a better product, won the market, and then continued to improve it. Despite being a near-monopoly in search, Google has never rested on its laurels. It's easier to innovate ahead of others when what you are building is technically hard, or you need people with uncommon skills to build it.



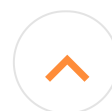
Closely related to this is building an organization that understands its customers: a leading-edge company has access to more relevant customer knowledge than a company outside the industry and can use this to build the best products because, in a new market, what the best product is is still being discovered.

**Lead Time:** With many startups, economies of scale are not that relevant but cumulative time and cost to build makes a difference. If you have developed a complex system that took many years to build, a new-comer needs to do all the work you have done in that time (as well as whatever work you do while they are building) to have a system that can compete with yours. If they can't generate meaningful revenue until their product is comparable to yours, then they need to raise all the money you received in revenue over the years as investment capital. This hurdle can become very large very quickly.

The height of the hurdle primarily depends on how complex the system is: a new operating system is a high hurdle, a new CRM not so much. With information businesses it depends on how much it costs to gather the information. Many big data businesses have developed a system over several years to deal with an enormous number of transactions per second; if you are just starting out, you need to follow the same path before you can compete with them. If it takes you as long as it took them, you'll never catch up.

**Complementary Assets:** Another way of deterring competitors is to have a product that relies on its integration with other products and services for its utility. These other products and services are called **complementary assets**. For instance, Apple's iTunes was never the best music management software available, and yet it quickly took a near monopoly position because of its integration with the iTunes store (and through the store with the labels) and Apple's MP3 players.

**Switching Costs:** Some sort of lock-in or high switching cost keeps customers even if your product is not as good as your competitors'. The network effect is a good example: networks are more valuable the more people are on them, so if your product needs a network to function and you can create a large one then upstarts will have a harder time competing. Another example is the lock-in created by a product like Microsoft Office, where a proprietary file format for a long time meant that once a company started using Microsoft products, switching to a competing product might mean losing all previous documents.



**Speed and Optionality:** Many large companies manage by distributing responsibility within fairly tight bounds. Managers can manage in whatever way they think best but need to stick to the goals and timeline they articulated in the Fall of the previous year. In some instances this gives you a year of free growth even after they notice you and become concerned. Similarly, a startup might have the ability to change direction at any time, while this is unusual at a large company. Many fintech companies have taken advantage of this lag time to continue growing unopposed by incumbents even after their trajectory became a concern.

Another sort of optionality is your willingness to bet the company. A startup can do this because you don't have much to lose. A large company can not.

A good strategy will have more than one of these elements, and will change over time as the market changes and the resources available to your company change. It's not easy formulating a good strategy, and it's especially hard when you're neck-deep in running a startup. Founders don't often have the luxury of stepping away from the tactical to focus on the long-term.

For most of the entrepreneurs I know, the excitement of building a company comes from working with leading-edge technology, or the smartest engineers, or the hardest-driving customers. When you have these things the temptation is to just start running as fast as you can. When someone asks you how you win, long-term, the easy answer is: "we're disruptive." Don't fall prey to this. You can be right and still lose. Take the time to think about a real strategy. Do it early in the company's life and revisit it every year, at least. Without a strategy you might predict the market and the technology exactly and still lose to someone who does have a strategy. When I hear the word "disruption" what I hear is "I don't need a strategy" and that's a huge mistake.

1. Pisano, Gary P., *Science Business*. Boston: Harvard Business School Press, 2006, p. 71. ↪
2. The below diagram is an interpretation of the data from Christensen, C., *The Innovator's Dilemma*. Boston: Harvard Business School Press, 1997, p. 131. ↪
3. This glosses over exactly what a "new market" is. Some of these companies were formed to solve problems that were created when other companies used new technologies. These ancillary problems could be considered "new." And, of course, using technology to solve problems created by new technologies has always been a large driver of new companies. But this isn't a flaw in my argument, it's a feature. If semantics are a major contributor to your strategy, then your choice of language must be obscuring your view of reality. Better to use a frame of reference with less ambiguity. ↪
4. Christensen, C., op. cit., p. xxi. ↪
5. Pearson, Andrall E., Tough-Minded Ways to Get Innovative, *Harvard Business Review*, May-June 1988. ↪
6. Even my blog posts. ↪



## 23 Comments

**James Mawson** says:

May 28, 2016 at 1:39 am

Great post, Jerry. You are right to say strategy should come before tactics but before either should be setting the aims. If an entrepreneur is clear on what she wants to achieve then the strategy can be formulated and tactics devised. Too often entrepreneurs gloss over this – especially worrying if co-founders are involved.

**Garrett Cecchini** says:

May 28, 2016 at 5:42 pm

Yes, exactly that's why the exercise of doing a biz plan or super ExSumm. is critical unless you are a serial entrepreneur..

**Garrett Cecchini** says:

May 28, 2016 at 5:43 pm

Whoops, meant serial entrepreneur.

← Pingback: [Disruption ≠ Strategy - GeekEstate Blog](#)

← Pingback: [Petervan's Delicacies – Week 23 May 2016 | Petervan](#)

**Terry Yelmene** says:

May 29, 2016 at 7:59 am

At first thought, I may have a similar response to 'disruption,' as an over applied, often shallow descriptor for all things business innovation-circa 2015-2016, but I have to respectfully disagree in retrospectively thinking about 'real strategy.' For me, the evidence I see within disrupted industry after disrupted industry, billion dollar value valuations/very, very fractional headcount and time to near-monopoly market positions, all inform me that exploring/finding the disrupting leverage through tech is a strategic play and is valid almost all by itself. Of course the devil is in the contextual details, but as a strategic move, I think 'disruption,' may be pretty d\_\_\_ valid.



**Jerry Neumann** says:

May 29, 2016 at 10:24 am

Can you give a couple of examples of companies whose long-term strategy at the outset was 'disruption' who went on to be successful? It's always hard to argue generalities.

← Pingback: » [Having a Strategy, via "Disruption is not a strategy" from @ganeumann Amol.Sarva.Co](#)

← Pingback: [Disruption is not a strategy | Reaction Wheel | Roger Dennis](#)

**Andy Cars** says:

May 30, 2016 at 5:14 am

Great article. I agree that disruption is not a strategy. It's a potential result or outcome. Startups are searching for a business model and strategy and the glue that binds them together is the purpose, vision or "the why". I think that the "why" should be the starting point and then let the learnings that come from experimenting with tactics inform your strategy. So "why" comes first with "what" and "how" being developed and discovered in parallel. Nothing new under the sun but it would be interesting to hear your thoughts on that.

**Jason** says:

May 30, 2016 at 7:34 am

I need to to thank you for this good read!! I certainly loved every bit of it. I have got you book marked to check out new stuff you

**James Ferguson** says:

May 31, 2016 at 4:31 pm

Hi Jerry – Nice article,  
However, I think you want to be careful with your fitness-landscape description.

The notion is strong when "hill-walking" works (going uphill locally leads to possible optima) – this is the case with the continua for which Christensen (carefully) uses this model (dimensions are proven /new , established / emerging)- but just doesn't work for categorical dimensions like "technology" and "problem being solved" because these cannot be ranked in a meaningful manner.



So take two problems being solved as categories – if they are placed alphabetically along an axis proximity on the landscape makes no sense.

So fitness landscapes are – a useful tool to understand heuristics – but also one that when abused leads to misunderstandings more significant than misunderstandings regarding disruption .

Anyway – not hating on your article (really thought it useful) – just highlighting scope for improvement :)

If you want to see some really cool solution search (that disrupts in a precisely termed manner) – drop me a line !



**Jerry Neumann** says:

May 31, 2016 at 6:07 pm

I agree, but I was careful: I didn't claim you could use an evolutionary search strategy to hill climb.

I actually don't think Christensen ever uses the fitness-landscape analogy, but it is definitely an analogy. As, of course, the diagram that I took from the viral evolution paper is: there are no two dimensions that viruses evolve through, but depicting the  $n$ -dimensional space they do evolve through would be pretty difficult, given how large  $n$  must be.

The lack of a rank-ordering of technology along a single dimension is a good point. And it's interesting to think if there's even an  $n$ -dimensional ordering. The arguments against are pretty strong (not just incomparability, but perhaps even incommensurability) but actual technological practice includes a lot of iterating and tinkering, implying there is a path to be random-walked.



**James Ferguson** says:

June 1, 2016 at 6:36 am

OK – A) I like your thinking

B) – You may be onto something ... Re random walks





If we ignore the iterative we are left with the inventive step (worked at a patent office until I got bored). And that is hard to define conclusively (but “non-obviousness” is an oft used criteria)

Hill walking is by definition obvious (it is algorithmic) – I believe that the facets of innovation are not as complex as the complexity of engaging with the market.

So if I produce something brilliant (not just faster horses) – there is no guarantee the market will adopt. For this reason the beachhead strategy (attacking a well delineated niche) makes sense.

The following by April Dunford also starts to explain why over reliance on algorithmic “search” for Product Market fit – can give many false negatives (do your investments have leaky buckets, death stink, true love – or as we all do a combination ?

If <http://www.rocketwatcher.com/blog/2016/03/leaky-buckets-death-stink-and-true-love.html>



**Jerry Neumann** says:

June 1, 2016 at 7:22 am

Thanks, I'll check the link. Obviously there can't be a formula for successful commercialization of innovation, otherwise we could just automate it and have a perpetual money machine. On the other hand, we get better at innovating in specific sectors as we learn. The evolutionary-search-on-a-fitness-landscape metaphor is flawed beyond the ordering concept because we have a dim view of what the landscape looks like...we know that things that violate the Second Law of Thermodynamics have zero fitness, for instance, so we don't have to try those. So we have a sort of hazy meta-view to guide us. Things like science make the view in certain areas less hazy: steam engine progress became much faster after the laws of thermodynamics were understood, etc. I think the concept is limited, but it's still a good first-order model. (I've explained the need for a pivot as what you do when you reach a suboptimal local maximum, for instance.)

Anyway, this is way off-topic.





**James Ferguson** says:

June 1, 2016 at 10:59 am

>> a pivot as what you do when you reach a sub-optimal local maximum  
–

I love it !

BTW just found your web “shell” ;) Took a step of learning but got there !

It was intuitive but tried to cd into thesis – didn’t realise it wasn’t a shell !  
:)

Neu Venture Capital

> ls

companies help neu

info people exits

labs thesis goto

links

> cd thesis

No such command: cd. Try ‘help’

> help

Commands:

– help: this dialogue

– neu: a description of Neu Venture Capital

– people: Neu Venture Capital bios

– links: Neu media and info

– companies: Neu Venture Capital portfolio companies

– info [company]: information on a portfolio company

– goto [company]: open a portfolio company’s website

– labs: information on Neu Labs projects

– exits: companies Neu no longer owns an interest in

– thesis: Neu investing thesis

– blog: open a window to ReactionWheel

This web site was built with JQconsole.

> thesis

Neu invests in sci-fi, preferably not dystopian.

> neu

Neu Venture Capital is an early stage investor based out of New York City. We like to be the first

money into a company. We both lead and follow into investment rounds and can help syndicate. We like



to be involved with our companies, sometimes accepting seats on the board, but always available to help.

We are small, but we think big. We like ambitious companies in big markets with founders who can't help but try to change the world.

>

← Pingback: [Mattermark Daily - Tuesday, May 31st, 2016 - Mattermark](#)

← Pingback: [Horizon 3](#)



**Luz Enseñat** says:

June 1, 2016 at 8:20 am

Thanks for this article, Jerry!



**Andrew Blundell** says:

June 2, 2016 at 8:14 am

Nice article, thanks

Clay Christiansen has also published an article saying that Uber isn't disruptive, but he didn't make the point about this being a warning rather than a handbook

<https://hbr.org/2015/12/what-is-disruptive-innovation>



**Elnor** says:

June 2, 2016 at 9:09 am

Very well thought out article but I think that it focuses only on one dimension of disruption – price.

Disruption, to my understanding, is about changing the dimension of performance (in the disk drive example – from capacity to size). Potential performance dimensions can be price, skill required to use the product, access to product/service or time it takes to perform an activity. If you consider the disk drive evolution within this framework then the shift to smaller drives enabled us to move from mainframes to pc to laptop to handheld. Each generation allowed us to access computing services in places they didn't exist before and unlocked incredible consumption potential. That is what's at the core of the disruption in the disk case. A prime example of an expensive product that disrupted a much cheaper product is the cell phone v' the landline (much more expensive and less



reliable but provides unparalleled access to communication services) or even within the cell phone space – the iPhone v' any other cell phone at the time (in 2007 the call quality was inferior to Nokia phones, was much more expensive, email was inferior to BB but it provided access to internet in places you couldn't get it before).

Both of these products unlocked consumption that was underserved by the existing solutions.

I fully agree that claiming “disruption” as a strategy without providing the substance to execute it is futile. I also believe that expanding our definition of disruption to include all dimensions and not focusing solely on price as a disrupting mechanism allows for much more creativity.



**Michael** says:

June 2, 2016 at 3:32 pm

You asked for someone to disrupt cable TV? How about YouTube. YouTube is cheaper, lower quality in many ways, but with one nice feature: it is on demand. The primary users are kids on their phones out in the world. Cable's primary customers are parents in their living rooms. So cable left that market to YouTube.

Now YouTube is working its way up the food chain. The quality is pretty good (at least better), now and it is still cheaper, but they are now putting full movies for rent on it. It is now a serious competitor for the home movie market which is surely (or at least should be) making Comcast nervous.

Look at the trend of “cord-cutters” nowadays, you will see Christenson's template being followed.

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**Warning:** call\_user\_func\_array() expects parameter 1 to be a valid callback, function 'my\_custom\_js' not found or invalid function name in **/home/content/99/11765199/html/wp-includes/class-wp-hook.php** on line **286**

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Jerry Neumann's Blog

