

Software is still eating the world

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[Marc Andreessen](#) penned his famous “[Why Software Is Eating the World](#)” essay in The Wall Street Journal. Today, the idea that “every company needs to become a software company” is considered a cliché. In your industry, you’re expected to be reimagining your business to make sure you’re not the next hotel chain caught completely off guard by your equivalent of Uber or Airbnb. But while the idea of being “disrupted” by startups or competitors is useful, it’s also not exactly practical.

It is decidedly non-trivial for a company in a non-tech traditional industry to start thinking and acting like a software company. This is why the companies we most associate with “Why Software Is Eating the World” are the few notable exceptions (like GE). Ultimately, there is no blueprint for how to make this transition. Here are two principal lessons or starting points that can be learned from companies that have succeeded in the last few years: timing and focus.

Timing is everything

It’s important to appreciate just how prescient Andreessen’s idea was in 2011. At the time, the Amazon had been around for a decade, the iPhone was four years old and the App Store was [\\$1 billion](#) in revenue for millions of developers. Facebook had [845 million users](#), and Netflix was [\\$1 billion](#) in content each quarter. Most people would have said we were finally fully immersed in the tech era and the internet had changed everything. In other words, the future was here.

And, as Marc predicted, they would have been very wrong. As he put it:

“Six decades into the computer revolution, four decades since the invention of the microprocessor, the rise of the modern Internet, all of the technology required to transform industries through software can be widely delivered at global scale.”

[Uber](#) was founded in 2009 and launched its service in 2010. Outside of a small but loyal core of local airport limo drivers in San Francisco, few people knew what Uber was in 2011, and no one was having endless conversations about “Uber for X.” Similarly, [Airbedandbreakfast.com](#) (later to be renamed [Airbnb](#)) was founded in 2008, but only reached [1 million listings in 2014](#). Today, it’s hard to imagine getting around in San Francisco without the two services.

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Smart players do not necessarily build out their entire vision from top to bottom.

What Uber and Airbnb — like Andreessen — understood about “software eating the world” was that innovations often emerge at just these moments when it looks like everything has been changed. Uber and Airbnb saw the world of the cloud, the iPhone, the App Store, AWS and themselves, “it’s not about what can we do now, but better; it’s about what can we do now than until today.” It’s that discontinuous leap — supported by the rise of new platforms — that led to the transportation industry or reimagining hospitality.

[Netflix](#) — while far from a startup in 2011 — is also an interesting case. They started by shipping so that people could watch movies without having to live through the hassle of making a trip to a video store into providing streaming movies in the comfort of people’s homes.

Like Uber and Airbnb, Netflix looked around at the platforms and infrastructure available to them (broadband internet) and asked what they could do on top of those platforms that either no one else was doing (DVDs) or had previously been unfeasible. In 2013 they took the discontinuous leap from tech to content creator.

Now they think of themselves far more as a movie studio like HBO that creates original programming. They have a vast and unique understanding of viewing behavior derived from the analytics of its subscribers.

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This is a recurring pattern of innovation. Smart players do not necessarily build out their entire vision from top to bottom. They look around for inspiration on the problems they can solve for people (getting to stay, killing time) and then leverage the platforms available to them to come at the problem from a new angle.

Sometimes, like Netflix, the process is more incremental (or, as Ben Thompson would characterize it, the infrastructure is in place for a more dramatic, discontinuous shift).

Of course, having the vision is one thing, making it real is another challenge in its own right — two...

Focus on your core

For a traditional industrial or service company, making the transition to acting like a software company is a massive undertaking. You need to hire new people in every part of your organization; restructure around new priorities; reestablish customer, partner and supplier relationships and expectations; overhaul infrastructure; and overcome a host of other challenges.

If you have a healthy business with revenue streams locked in for years, that’s great. It means you have a problem now and know you may have a few years to get it right. That’s a great circumstance, because speed and the ability to test and iterate are going to be required; to move fast, you need to focus on your core. As famously said, “Deciding what not to do is just as important as deciding what to do.”

Focusing on your core when it comes to technology make focus on your end-customer experience.

A good way to illustrate the power of focus at the practical level is going back to Uber, which growth by solving a very real problem of providing to the masses a service to transport people relatively affordably. How has Uber been able to grow so fast and scale so quickly? As we just saw, the new reality of mobile — with every person, both driver and rider, having a connected compute device — leveraged that new normal as a platform to bring people together in a way never before imagined.

Uber doesn't own their cars. They also don't directly employ their own drivers. So, one might wonder, what is Uber's core asset? The core application and ecosystem around the Uber experience is the differentiator. But to deliver that experience, they apply rigorous focus.

At the practical level, when you look at the technology components of Uber's world-renowned platform, you see it relies on other core platforms and technologies to power many of the key elements.

They run on infrastructure provided by [Amazon](#), so they can be up and available all around the world. The mapping technology is provided by [Google Maps](#) in the form of an API, so drivers take the fastest route where you are. Their messaging stack is provided by [Twilio](#), ensuring you get that text message when your ride has arrived. And their email service to send out things such as receipts to passengers is built with [SendGrid](#).

Uber leaves all of this to specialists who focus on these elements as their respective core business. Uber's focus on is curating a world-class experience for their customers and solving the problem of getting people from point A to point B, one ride at a time.



This laser focus allows them to put all their energy on the main problem they are trying to solve, while outsourcing other essential aspects that are critical to their app, but that don't qualify as areas Uber needs to be a core competency. The benefit of this approach is not only in getting the initial application built, but also in the ongoing maintenance of these non-core elements of the stack.

Notably, it also creates an innovation boost in the wider ecosystem, because each of these non-core elements is provided by a specialist supplier. These suppliers — or platforms — need to innovate very rapidly to remain indispensable to their customers. It's a virtuous cycle where Uber automates and integrates those innovations in its apps.

Every company should apply this calculus to its digital strategy. The next question centers around how to determine which elements are core or non-core:

- Will the non-core service provide your application an innovation tailwind? This could happen if the sheer innovation velocity by the specialist supplier in a highly competitive market where they are shelling out only a fraction of the cost. If an innovation tailwind occurs, then use specialist services. For example, by using the payments stack from [Braintree](#), Uber is able to benefit from the advancements made by Braintree on their platform.

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- Can the service be substituted by another supplier? By definition, the ability to swap the service warrant it to be your core competency. Uber switching between Google Maps and [Mapbox](#)
- Will the service provide a neutral to incremental experience improvement for my customers? the answer is that its impact is neutral (the experience the specialist provides is just as good as been able to provide had you built the service yourself), it makes little sense to keep doing it

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Focusing on your core when it comes to technology makes it easier to focus on your end-customer that's what makes a great software company.

According to [Constellation Research](#), more than 52 percent of companies that used to be on that list in 2015. It would be safe to assume that the new entrants will all have created differentiation in their core business model.

The central question, therefore, is not whether every company will have to embark on some sort of journey depending on their business, but rather how they will go about making it happen. By looking at Uber, Airbnb and Netflix, we can learn a lot about the value of both being keenly aware of the world around us that makes the world ripe for disruption and the advantage of focus when there is so much so important.

In reality, most companies embarking on this journey will fail. As Andreessen said, "No one should expect a high-growth, software-powered company in an established industry to be easy. It's brutally difficult."

Of course, that's also why it's worth doing.

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