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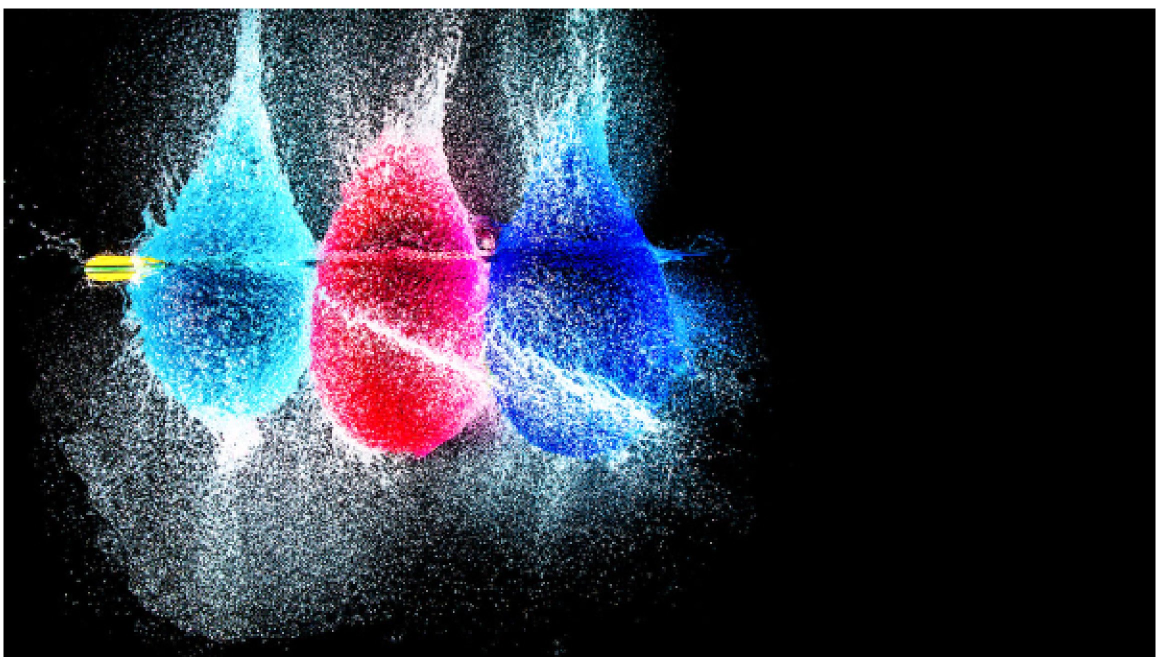

How does disruptive innovation differ when it's applied to a product versus a platform?

For the sake of clarity, let's call a product "a platform that is used for one or very few products" and a platform "a structure upon which many variations of products are built." These definitions recognize that product vs. platform isn't black-and-white, but let's use them for practical purposes. For example, using this definition, a Tesla car battery is a product, because it powers only a few cars. But as more electric cars enter the market (including more Tesla models) and there are more uses for rechargeable electric batteries, perhaps the battery will one day move up the scale to become more like a platform.

Similarly, it's useful to distinguish between types of disruption.

There's high-end disruption, which means entering the market with a product or platform that is superior to incumbents' offerings — again, the Tesla Model S, or, to take a completely different example, Chobani yogurt. Starting a high-end disruption is expensive and challenging, requiring a lot of capital up front. Even Chobani needed almost $1 billion dollars of funding to get going. High-end disruption also requires challenging incumbents head-to-head at the outset, something that's very difficult to pull off.

A second option is low-end disruption, which is making a product or platform more affordable and simpler to use. Markets are especially ripe for low-end disruption when the existing products or platforms overserve the mainstream customer base. To take just a couple of examples, think of Toyota and Honda entering the U.S. market with the Corolla and the scooter, respectively. Low-end disruptions are more common than the high-end variety because they're less expensive to get off the ground and, at least in the beginning, they don't directly challenge incumbents — instead, they gain market foothold with the incumbents' least-profitable customers.

A third type of disruption is new-market disruption, which emerges from nonconsumers and usually creates a new category, or even new industries. For instance, in the medical sector, stents gained market foothold in the catheter diagnosis market but now are slowly and relentlessly capturing a significant share of the heart-related extracorporeal surgery market. Again, they didn't initially challenge incumbents directly; they gained a market foothold in an adjacent space.

In all the examples above, a company engaged in a disruptive process using a product. But it's also possible to engage in all three kinds of disruption via a platform.

Platform-based high-end disruptions are very uncommon, mostly because they are expensive to fund and bring to profitability, though the few that exist get a lot of attention. They also directly attack incumbents head-to-head in a highly visible way, just as with product-based high-end disruption. But instead of challenging the incumbent on the basis of one product, you're often contesting the entire customer portfolio. This often leads incumbents to counterattack aggressively.

The poster child here is Uber, which uses a platform to market its eight products, has raised over $9 billion so far, still is not profitable, and is being counterattacked by the taxi industry. Successful high-end platform disruptions often stem from "open innovation" initiatives: When all goes according to plan, potentially disruptive companies are co-opted into being resellers for the incumbents or partners with them (think of Apple Pay) rather than being direct competitors.

Low-end platform disruptions make things cheaper and more affordable for overserved customers. They include platforms such as Flash memory, the Boeing 737-200 (the plane that enabled low-cost airlines), and many "cheaper and simpler" service businesses. They may be less visible than their high-end disruption cousins, at least at the outset, but they are no less dangerous to incumbents. Unlike low-end disruptive products, low-end platform disruptions can change the dynamic of an entire industry.

Consider a simple case of low-end product disruption: personal computers. People used to buy computers mainly according to speed and storage capacity (which were expensive); today, shoppers look for convenience and battery life. If you are a computer maker, it may be challenging but not impossible to introduce a cheaper laptop with less storage capacity and more battery life. But it is much more difficult to launch a whole new product category to stop a disruptive low-end platform.

Then there's platform-based new-market disruptions. They not only create new categories but also enable a whole new population of people to make money (think of Airbnb, ING Direct initial deposit, Quicken for your taxes, etc.). Like new-market product disruptions, when they begin they're not even on the radar of incumbent firms. But the effects reach further because what the incumbent once considered a toy is now challenging the economics of a product and the entire rationale of how that entire industry is going to work.

Thus it makes a big difference whether you start with a product or a platform. Product-based disruptions have a strong "within the industry" effect; after all, being a serious threat or replacing the incumbent is a big deal. But platform-based disruptions have effects not only inside the industry but also well beyond industry boundaries. They can create strange competitive bedfellows as companies in different industries are affected, which is the case for many marketplaces such as Amazon or Alibaba, where competitors act as buyers and sellers at the same time. They can even cause industries to collapse, as in the notorious case of Craigslist and the newspaper industry. And they can enable massive numbers of people and businesses to make money from excess capacity (like a guest bedroom that you never use or a passenger seat that often sits empty), ideally reducing waste and increasing people's incomes at the same time.

While it's difficult for incumbents to respond to disruptive products, it's even more difficult for both incumbents and regulators to respond to disruptive platforms. Incumbents that are used to dealing with product-based competition often don't know how to react to a platform that competes at an ecosystem level, and as the case of Uber demonstrates, they usually turn to regulators. But the massive number of people that platform-based disruptions attract makes regulating them difficult; a successful platform such as Uber gets so big, so fast, that it's tough to put that genie back in the bottle. Even if a platform disruptor can be stopped (such as Napster), once the idea is out there it is only a matter of time until someone figures out how to commercialize it in a more legal way (iTunes, Spotify, etc.).

While product-based disruptions change what people buy, platform-based disruptions result in more far-reaching societal shifts. Today, they enable people to complement their salary with part-time work or rent out their underused assets; tomorrow, as more of these companies become bigger and more sophisticated, these trends may accelerate so that, paradoxically, people who make a living out of a few platform-based jobs have more job security than today, when their income comes from a single source.

Since Clay Christensen popularized the theory of disruption more than 20 years ago, we have seen a first wave of product-based disruptions emerge and become a serious threat to incumbents in a variety of industries. We observe how the disruption process doesn't stop — it might go at a different pace, but it does change things. A recent survey indicates that about half of the S&P 500 will be replaced over the next 10 years, a generational change that we call "disruptive change."

We are now at the beginning of something new, something different. There is a new wave of platform-based disruptive enterprises that will not only change industries but also bring a deep societal change. It will change how we live, how we make money, and how we interact with each other, and it will give us many new opportunities.

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