




Demonetize and Democratize Transcription




So you can see, the disruption on the technology side, right? A dozen technologies moving at scale. We see the kind of pace on the aggregate effect is very profound. Every industry will have an impact. In fact, we can't spot an industry that won't be disrupted, but there's also the social side of the disruption.




Every institution is under threat. Take education. We invented our most of our existing educational systems a few hundred years ago to train young kids through their early twenties to be ready for the existing job market. Because if we don't know what a job looks like in five years, what are we teaching them?




If you take any institution that really needs to be updated as well. So every business operating from a scarcity business model needs to consider that it might be disrupted at some point in the other. Now the other side, once you kind of get the fact that you're being disrupted the next level is that you have demonetization happening.




And there are two aspects to what's happening on the money side. The first is the, the metabolism is accelerating. It used to take 20 years to create a billion dollar marketplace. And now we're seeing that happen in months, as you can see from the clustering of unicorns in this graph. But more importantly, this chart from the newspaper industry is really maybe the most fundamental.



We see that once you have an information based environment, you have a sudden deflationary cliff that hits. And in the newspaper business, we saw six X drop in revenues within two years as eBay Craigslist really started to bite. And the music business, a 10 X drop in revenues. Note that they called the music industry, the media industry, because they were trying to sell the physical media.



Right. But actually now it's an information service. When I can go from artist to listener with a YouTube video, all the intermediaries disappear. And this demonetization is taking place everywhere.



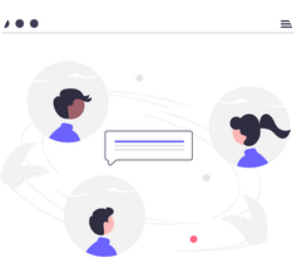
If you talk to a professional photographer, you'll learn that the new iPhone, the camera's in the software are so sensitive it replaces \$8,000 of professional lighting equipment. And so that's another demonetization and there's lots of kinds of examples of that. And this is very hard to get our heads around and I'm going to spend a few minutes on that because this is critical. That'll shift from linear to exponential is very hard to spot. When the Google car first came out 10 years ago, the cost of the lighter or the GPS, the sensor of the radar added up to about \$200,000 a car. And all the car companies looked at that set up cute research project, but you'll never commercialize it.



Two years later, it was a hundred thousand dollars a car, two years later, \$50,000 a car. And even then the response was who'll pay \$50,000 for all those sensors. Right? Why could you add \$50,000 to the cost of a car, but now we're down below a thousand dollars a car for all of those sensors.



This LIDAR unit that you see at the top of this Prius cost \$75,000 in 2012. And you can buy that today for about. \$40. The next version would be \$10 and it will literally disappear into our smartphones the way we've seen GPS systems disappear. And this is again, the reason you see this is because each of these 12 technologies is doubling, but where you intersect more than one or two, you have a huge multiplier effect.



And therefore you see this radical cost and change drop in cost. And again, we see. This example of the car industry, not seeing the incredible drop in cost of LIDAR. Or take this example in 2003 those single leading global expert in solar energy made this point that he predicts we will never get below a dollar a watt in solar energy. And you can see the market actually believed him for a bit then it started to drop and we're down to about 12 cents a watt today, and his latest comment is here at the bottom where he says, okay, getting below a dollar has exceeded my expectations. And we're fond of saying an expert will tell you how you can not do something. Right. It's one of Peter's favorite comments.



And we see this across the board. If you make a prediction as an expert, in an information based environment you're linear and the world is going exponential. And we could see many, many examples of that. And the final reason, the final D which is democratization [00:04:00] shows you why this is so fundamental and pervasive.



You remember the original graphs where the cost of everything is dropping to zero. It means anybody has access to it. Today, any entrepreneur can enter a legacy industry with a beginner's mind, leverage new technologies and totally disruptive it. Elon Musk may be the best example. He has no experience in the car sector, the energy sector, or the space industry.



And yet he's created market leaders in all of them. And all of these patterns are going through this kind of curve where domain becomes digital, the costs go does zero, you get disruptive new ideas forming, open source communities, and you get disruption of the status quo. And whether it's drones or biotech or neuroscience or blockchain we're all seeing this pattern happen. So any entrepreneur today can do this, and I think Elan is probably the best example.



His methodology is very simple. He takes it to a technology that is growing exponentially, whether it's space technologies or car or battery technologies. He looks out 10 years, where will it be in 10 years and then he aims to build a company intercepting that over a 10 year period, because it takes about 10 years to build a proper global company. And then he can leverage the scale in the underlying technologies.



So the democratization, it means that anybody can go after these technologies and come up with something disruptive. Vitalik Buterin was 18 years old he invented Ethereum, and now that's a \$60 billion market cap industry. It's almost impossible if you're in the legacy side of things to really get our heads around this, but there are about a dozen examples going to hundreds and thousands of now new entrepreneurs coming along, disrupting every single industry in the world because the cost has gone to zero.



So we have these four D's that I'm not going to summarize. We digitize the digitization leads to heavy disruption. Okay, we Demonetize because you need digitize, you take the money out of the system and because of democratization, anybody has access to this. So you have to assume that the aggregate effect of all of this will be that your company or your industry will be disrupted.



It may not be clear how, but it's going to happen. And so these four D's give you the basis for the fundamental transformation that's happening in every business and every industry.

