



## Stanford eCorner

### The Power of Curiosity and Inspiration [Entire Talk]

Jack Dorsey, *Square*

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Square and Twitter Co-Founder Jack Dorsey is an entrepreneur driven by an innate curiosity to create amazing products and services. In this insightful lecture, Dorsey describes his early background and inspirations, the current focuses he keeps as a CEO, and his desire to create memorable experiences and solve problems.



#### Transcript

It brings me great pleasure to welcome to Stanford Jack Dorsey, who is as you know, the co-founder and chairman of the board of Twitter and the co-founder and CEO of Square. Jack, welcome to Stanford. Thank you for having me. It's an honor to be here. I get a lot of my inspiration from walking around. This is like a gorgeous campus to walk around. I spend many hours walking around this campus, driving down here specifically just to do so because I was now fortunate enough to go here. I wanted to start with a story of entrepreneurship. My father, when he was 19 years old, he was living in St. Louis, Missouri.

He was a pretty good cook. He knew how to make pizzas. He had a best friend who also knew how to cook pretty well as well. So, they decided to create a company together and to call it "Two Nice Guys". It was a pizza restaurant. I think the main reason that they started this pizza restaurant is my dad is, we're from St. Louis. So, there is a lot of meat and potatoes. So, it was a personal challenge to him to see how much meat he could get on one pizza, which he called the "Tim's Special". They started the restaurant, it started going very well.

They needed to hire some help. They made one rule before hiring wait staff. They made the rule, "We will never date any of the wait staff." And the next person they hired was my mom. My dad fell in love with this woman. Her name is Marcia. He went up to his best friend and said, "I broke the rule. I have to quit. The company is yours. And I will go marry this girl." I was born 10 months later. So, that's how I got started.

I got started in St. Louis, Missouri. It feels like a very, very small town. It's actually five million people. But a lot of it is spread around the metropolitan area. My parents always stayed in the city. They never moved out to the suburbs. They were true believers in the city. And St. Louis was one of the hardest hit cities in America, apart from Detroit, in the great flight to the suburbs in the '40s and '50s and the '60s.

When I was growing up, I was surrounded by this urban atmosphere. I just loved it. My first love, I think, was the city. I was walking around downtown St. Louis. It was fairly desolate when I was growing up. But it was still a joy and a wonder to me. You had skyscrapers and you had all of this hidden energy. Just walking around, you could feel something different. That sort of love and that obsession was made most tangible by maps.

I became obsessed by maps and looking at them. I bought every Rand McNally and every single map that I could find. I would put them in my room and hang them all over the walls and just look at them and wonder what was happening at this particular intersection or in this area or how to get down this road most efficiently. My parents didn't know what to make of it but I loved it. In 1984-1985 we got the first Macintosh and an IBM PC Junior. I really wanted to play more with maps. I wanted to see them. I wanted to alter them more and do it on the computer screen. So, I taught myself how to program because I wanted to learn how to draw a map on the screen. And then, I accomplished that.

It was very, very basic and very simple. And then, I put some dots on the map. And then, I learned how to move the dots around. Then, the next challenge was to figure out how to keep the dots on the streets because they were going all over the place. And then, I had all these dots moving around this beautiful picture of this map, which represented downtown St. Louis and then later represented New York City, which I was amazed by. The issue was that none of the dots had any meaning whatsoever. They're just random dots moving around this city. My parents had a CB radio and they had a police scanner. And what was happening on the police scanner was really interesting because you had ambulances and fire trucks and police cars constantly reporting where they are and what they're doing.

So, I'm at Fifth in Broadway in New York City. I have a patient in cardiac arrest and we're going to St. John's Mercy. And I could take that information, type it up into a program, make some assumptions about speed and direction and what routes they're going to take and actually watch the ambulance go to St. John's Mercy. Then, I could hook up another ambulance and a taxicab, a police car, a fire truck. The more and more of this I did, the more I learned how to automate more of it because the Internet was just coming up. We had Gopher and St. Louis, Missouri, has a school named Washington University, which was one of the first backbones for the Internet. So, we had a pretty good connection to the BBS systems, the bulletin board systems, back then.

I found all these databases of this information, although this was after the fact. But it was still interesting to watch and to see unfold. So, now I had this picture of real-live data of a real-life city operating in front of me. And I just thought it was the most beautiful thing ever that I could visualize, a city living and breathing. I learned that the software had a name and it was called Dispatch. I went to college. I went to University of Missouri-Rolla initially. I was deciding between political science at the time and computer science because I have always been fascinated by cities and at some point want to maybe potentially go into government. I'm still not quite sure if I have more effect there or more effect in programming. But I went away from political science because I realized that there are a lot of parallels between what you do in politics and what you do in government and writing policy and laws and what you do in programming.

But the difference is the time scale. So, I could write a policy as a senator or as a mayor and I could see the effect maybe in eight years. But I could write that same policy and write a simulator around it and write populations around it and I could see that effect instantly with a computer. So, I went down the computer science route. All that time I was building this dispatch system because I was just fascinated by these cities and the visualizations. I eventually found the largest dispatch firm the world through a lot of research. It was called DMS. It was in New York City. They had a very, very simple website. It just had their logo and the company name.

It had just gone public on NASDAQ. I could not figure out how to contact this company. I really wanted to see what they were doing and I actually wanted to work for them. They were running a very old version of Apache and there were some holes in Apache. So, I found a hole in their Web service. I discovered their corporate email list. I picked the email address for the CEO and the chairman. And I wrote an email that said, "My name is Jack Dorsey. You have a hole in your website. This is how to fix it.

By the way, I write dispatch software." I was flown out a week later and then got a job and then transferred to NYU. At that point, I was living the dream. I was working at the biggest dispatch from the world, the biggest call center in the world, and writing software to visualize New York City, which was amazing to me. That is really where a lot of my focus has been on. It's visualizing data, visualizing information, moving around in real time. I took that concept and eventually in 2000 realized that I had this beautiful picture of the city but it was all verticals. There were no people in it. Where are all the people in the city? That's when I started working on a very, very simple prototype based on some inspiration from Instant Messenger with the Away status and also a service called LiveJournal, which was a very simple journal blogging application that allowed you to compose a blog post and it would go to a friend's page. I also had the first BlackBerry because I was still working in dispatch at the time. It was called the RIM 850.

It was basically just an email pager. But what it allowed is I could be anywhere in the world, anywhere in the city, and I could share what I was doing and maybe I could also see what other people were doing. So, I wrote some very simple software to receive an email from my BlackBerry and then send it out to an email list of some people I put on that list, with my friends and my family on it. I got that done in about a day. Then, I went out to Golden Gate Park and I went to the Bison Paddock. We do have live bison in San Francisco, if you haven't seen it. They're awesome. And I typed out an email that said, "I'm at Golden Gate Park watching the bison." It went out to my service and was broadcast out to all these people. I immediately recognized two things. First, no one cared what I was doing.

[Laughter] Second, no one else had a BlackBerry. So, I was alone in my sharing and also receiving. So, I was getting no information back. Wrong time, good idea, put it on the shelf. I continued to contract around dispatch. I got into a lot of lower-level medical systems. If you ever take a boat to Alcatraz to go on the Blue & Gold Fleet, I wrote the ticketing system for that. So, just random contract jobs until I discovered this company called Odeo, which was run by Evan Williams. Biz Stone was joining in a few months. It was a consumer podcasting company.

I had never written a resume before. I had no interest in podcasting whatsoever. But I was a really good programmer and I wanted to understand the consumer side of the Internet. A lot of what I was doing was in the back end. While it would touch my mom and her life, it would be so in an indirect way. My mom may take a taxicab in New York City and may touch my software or buy a ticket to Alcatraz and may touch my software. But it wasn't direct. I wanted to learn about being more direct in interaction. So, I went to work with Ev and Biz. I quickly learned that no one else there enjoyed podcasting, either.

So, no one was really excited to build the product or build the tool and they weren't consumers of the tool. So, we weren't building something that we loved to use. So, quite an interesting situation which allowed for other ideas to bubble up. In late 2005, early 2006, we all broke up into separate groups. We were given an assignment to come up with an idea of something you'd like to work on. The first thing that came to my mind was this idea back in 2000. But now in 2005-2006, we had the SMS. I could actually send an SMS message from Cingular to Verizon. That was very, very new to the United States. I was in love with the technology.

It degrades gracefully to every single device, even the cheapest devices. And it has this beautiful constraint of 160 characters. It doesn't really work all the time. It's really rough around the edges. I love stuff like that. So, I brought up this idea, "What if we could just use SMS? You could send what you're doing. It will go out in real time to all the people who are interested in hearing it. And then, it would be archived on the Web. You could also enter it from the Web and it would be device-agnostic. It would be a whole thing.

It would be awesome." My two other people in the park, we were on a playground, said it was a good idea. We presented it to the company. It took about a week. But then, the company finally got behind it. I was given two weeks and one other programmer in Biz Stone to write the software. And we did it. At the end of that two weeks, I wrote the first tweet, which was inviting coworkers. And then, all the Odeo coworkers came on; they loved it. And little by little, we took from that company and we bought them on the Twitter project until we spun it out as a separate company and sold off Odeo. So, that's how that sort of visualization and early desire to see the world led into Twitter, which is still a desire for me.

Now we have more and more people using it all over the world. And it's even faster to see what's happening and what's unfolding in the world. But it really comes down to that curiosity about what's happening right now everywhere and really being the pulse of what's happening right now everywhere and being able to point to every single medium. In 2008 I stepped into the chairman role of Twitter. There was an interesting thing that was happening. The entire market was crashing. So, all of these financial obstructions that we had built up were suddenly being swept away. There is no better time to start a new company or a new idea than a depression or recession because a lot of the management teams were being asked to leave. There is a lot of people who need to get really creative to create something new and there was an opening. There was an opening particularly in payments.

At this time, I also reconnected with my first boss when I was 15 years old. His name is Jim McKelvey. He is a glass artist. He makes these beautiful pieces of glass. We reconnected over Christmas. I normally go home for Christmas and visit my family. We got to talking. He wanted to build an electronic car company. I said, "I have no idea how to do that but it's an interesting idea. But let's keep talking.

We should definitely work together on something." Then, one day he called me up on his iPhone. I picked up my iPhone. He was frustrated because he just lost a sale of a \$2000 piece of glass that he had just made because the woman who wanted to pay him only had a credit card and he couldn't accept credit card. We were both wondering, you have this general purpose computer next to your ear, why were you not able to make that sale? We decided that he would come out. We would take a month. We would hire one other programmer to work on the client's site and build a hardware out, I would build the server software and then answer that question. In a month we built a very early prototype of what is now known as Square, which is a credit card reader that plugs into the audio jack of your iPhone or your android or your iPad or anything that has an audio jack. We just need to write software for it. The software and the hardware was really easy. We got that done in about a month.

I could actually swipe a card and generate electronic receipt via email and then send it out to a person. I love this because I would go around to all these angel investors and VCs and charge them \$5 or \$50 to show them my new idea. I made \$600 from that, by the way. It was awesome. But a month later, after we had that prototype, Jim started reading the Visa regulations. He said, "Wait a minute. This is against the rules. We can't do this." And here, we had built all the software, we built the hardware and we had a great understanding of the payments world coming from nowhere, like I had no understanding of the financial world before this moment. We decided to push through and show this to Visa and show this to MasterCard and show this to AmEx. The thing that really inspires people is a working product.

When you're pitching someone, the best thing you can do is show them something that works. We did this with Twitter. We had a great number of users. We had a great number of mass. We had a lot of used cases. And we had investors who were coming to us who were already users of the product. Their families were users of the product. So, the story became very, very easy to tell. They could easily see why this was something that was powerful. Square was the same but it was a little bit more

tangible because I could actually take their credit card and take money off of it and then say, "Go to your Chase account right now and look because I just took \$3 from your account," or in some cases \$50 if I don't really like the VC.

But the interesting thing I realized along the way is that payment is another form of communication. It's another exchange of value. The really interesting thing about payments in the financial world is no one has really designed it. If you think about it, every single person in this world has some connection to money, they all hate it. At some point or another, you're going to hate some aspect of money. So, there has never been anyone who has really designed a payments platform or an exchange of value or a currency that's really beautiful and that's really thoughtful and that engages a user experience around communication instead of purely the service and the mechanics of transferring the value. So, when we were building Square, we realized that, "Wow! The receipt is something that has never really been designed or looked at. I go up to a coffee store and I hand them my credit card. I say, "I want a cappuccino." I hand them my credit card. And they type in "cappuccino" on a little terminal, which is basically a calculator on top of the cash box, and then they get \$3.24 from that.

They get a receipt. Then, they take that amount and they go over and they type that amount into the credit card terminal. Then, they swipe the card and then they get that receipt. And then, they hand me that receipt and I sign for that receipt and then I give it back to them. And then, they take that receipt, take the other receipt, staple it together with a little coffee card and then give me all that and I throw that paper away. It's useless. It would be so easy if you built a cohesive system that carries the entire transaction to create a receipt that is useful. With one swipe, I can sign on electronic screen, get rid of paper completely. But with that one swipe, I learn of the merchant's Twitter handle. I learn of their Facebook page.

I learn of their Yelp account. I learn of their menu, their hours, whatever they want to put on their receipt, they can put there. It can be used as a publishing medium and something that you can interact with, instead of something that is a burden to receive. And a lot of retailers out there are embarrassed by the receipts they give out and the whole payment processing aspect of their business. They go above and beyond to craft a beautiful experience in their store and they have to compromise to accept credit cards. They have to compromise to accept any form of payment. And then, what do they get out of it? If you go to any coffee store in America and you ask them, "How many cappuccinos did you sell today?" apart from Starbucks and Pete's, "I don't know, we made \$300." How many cappuccinos did you sell? And then, what percentage of these people bought biscottis? What happens when it's a rainy day? What happens on Tuesday at 5:00 p.m.? All this data were used for Google Analytics. We've used these effectively to build our electronic systems and our blogs and all of these companies that we're building. But real-world offline merchants have none of this data. They can buy into it if they buy into a \$15,000 point-of-sales system.

But then, they would also need to buy into an entire service army of people to figure out how to use it. So, what we want to do is we want to build a full point-of-sales system that is just gorgeous and that allows and enables someone to immediately not just make the transaction fast and feel great but to get very, very rich data for everything that they're selling, Google Analytics type of data for everything that they're selling. This becomes really, really important, not just when you're starting a business but when you're trying to grow that business. This is true for every single startup and every single thing we do. And one of my greatest lessons that I learned in starting and running Twitter and starting and running Square was how important it is to instrument all usage. You have to instrument everything. For the first two years of Twitter's life, we were flying blind. We had no idea what was going on with the network. We had no idea what was going on with the system, with how people were using it. We were making guesses.

We were basing everything on intuition instead of having a good balance between intuition and data. We were going down all the time because of it, because we could not see what was happening. So, the first thing I wrote for Square on the server was an admin dashboard. We have a very, very strong discipline within the company, which is now 72 people, to log everything, to measure everything and to test everything. We treat the dashboard, we treat the analytics, we treat the data as a product. We call it the inference team. Their job is to instrument all usage and infer all action. That's something that we need. But it's also something that our users need. All that data is really, really interesting.

It speaks to a market that has never really been addressed. Ninety-four percent of commerce is still offline. Only 6% has moved online. So, it's a massive, massive market and they have no tools whatsoever. The data has been really important. But I think one of the biggest things that has helped me is learning how to become a better storyteller and the power of a story. And by this, I mean if you want to build a product and you want to build a product that is relevant to folks, you need to put yourself in their shoes and you need to write a story from their side. So, we spend a lot of time writing what's called user narratives of this user or this person. He is in the middle of Chicago and they go to a coffee store in the middle of Chicago. This is the experience they're going to have.

It reads like a play. It's really, really beautiful. If you do that story well, then all of the prioritization, all of the product, all of the design and all the coordination that you need to do with these products just falls out naturally because you can edit the story and everyone can relate to the story from all levels of the organization, engineers to operations to support to designers to the business side of the house. So, that story is very, very important for us. And really constantly considering the story and

what new twists and elements we need to add to the story are a pretty big deal for us as well. And we want to tell an epic story. We want to solve a really big problem. We don't want to have a bunch of short stories strung together. We want one epic cohesive story that we tell the world. And both Twitter and Square are driving towards this goal.

So, number 2, good storytelling and writing stories for the users. The third thing is as I see my role as CEO of Square. My role, I think of it as an editorial function. It's funny because Square, our headquarters are actually in the San Francisco Chronicle Building. The paper is not doing so well so they're moving out and we're moving in. We're also right next to the United States Mint. So, it's a very auspicious location for a payments company. But by editorial, I mean there are a thousand things that we could be doing but there's only one or two that are important. All of these ideas and all of these stories from our users, from engineers, from support people, from designers are going to constantly flood what we should be doing. We need to choose the one or two that are really going to drive and sustain the network and the service and the product.

As an editor, I am effectively just the chief editor of the company. As an editor, I'm constantly taking all these inputs and deciding on that one or that intersection of a few that makes sense for what we're doing. There's three access points that I pay attention to, in particular. Number 1 is the team. We have to bring the best people in, edit the best people in so we have a good cast of characters, and edit away any negative elements. A lot of this is just like the timing is off and our relationship just doesn't match. In some cases, we have to ask people to leave or they leave on their own. But it's always minding that team dynamic because at the end of the day, we're just a group of people working on one single goal. If we can't step in a cohesive coordinated fashion, then we're going to trip all over the place. And that's a messy company.

No one wants to use that. So, recruiting is number 1. Number 2 is internal and external communication. Internal communication is just the coordination around what we're doing and why we're doing it and what our goals are and why the goals are like that. That's it. If you have that sort of high-level, this is where we're going, this is the vision, this is the next 30 days and three months and six months and a year maybe, it makes it very, very easy to set priorities and for all of the edges of the company to set their own priorities to do the right thing. The external communication is the product. The product is the story we're telling the world. We want to put everything through this. We don't want it to be about a person.

We want it to be about how people are using it and how people are fitting it into their lives and what they're doing with it. That's the strongest story we have. So, number 2 is that internal and external communication. Number 3 is editing the money in the bank story. This comes in two ways. It comes through investment and taking money from investors, either through swiping their credit cards while they're not looking or through revenue. Fortunately, Square is a company that has revenue from day 1 so we can look at constantly building that and we don't have to worry about much investment. We can focus on that revenue piece. So, my three priorities and my focus areas are in that order. That's what I'm constantly editing as a CEO.

I think it makes managing a growing company and a fast-paced movement very, very easy because there is basically one thing that you have to do. You have to make every single detail perfect and you have to limit the number of details. That's it. Every detail perfect, limit the number of details. If you can do that well, no matter where you are in the org structure, no matter where you are in the company or organization, you're going to succeed because you're paying attention to the smallest things. And if you pay attention to the smallest things while knowing what's important, then everything else takes care of itself. I have gotten a lot from those few things. That's what has guided my career. I'm always looking for that cohesive end to the story and how everything wraps back around. As an example of this, I found recently, about three or four months ago, that my father's pizza restaurant still exists.

I found about it because there is this account on Twitter. It was Pie Pizzeria. They tweeted, "Hey, Jack. I think I bought your father's company. We're using Square to sell all of our pizzas," which is awesome. So, it just all loops back around. That is the moment that we're all building for. That's why we do what we do and why we work so hard to build what we want to see in the world. It's for moments like that. It's not for moments where I say, "Hey, Mom, go down the street to this particular coffee store and you'll see Square, this new thing that I'm working on." It's my mom texting me randomly, she does it all the time, and saying, "Hey, Jack, I used Square at this random place that I just showed up at." That's the magic moment.

It really reminds me of one of my favorite quotes of all time. I'm not really sure who said it but it's in a Lynda Barry novel called "Cruddy". I think it speaks very highly of what we all do as entrepreneurs and what we all do as creators and builders of things. Everyone in this room captures it perfectly. And the quote is, "Expect the unexpected and whenever possible, be the unexpected." I try to live by that on a daily basis. So, with that, I would love to open the floor to questions and spend the next 30 minutes talking about whatever you want to talk about. Jack, the first question is actually from... My name is Jessie Juusola, and I'm the TA for the class the spirit of entrepreneurship, MS&E178. We meet on Mondays to prep for this lecture and then we meet on Wednesdays to debrief. So, for the first question, if someone from the class has a question and wants to ask it? One there.

We got one? Yeah. Just from researching Square, I'm just curious what your marketing strategy is going forward. I know you probably can't reveal that but I heard about Vodaphone's payware and for similar products that are also being put out that

don't have hardware on iPhone and things like that. I'm just curious what your marketing strategy is going forward, given the idea of this market is growing. More people are trying to add products. Well, number 1, the marketing strategy. We have not done any marketing whatsoever just yet. So, a lot of it has been word of mouth. By the way, starting a startup after Twitter is so much easier than before because you have an amazing way not just to promote the product but you get instant feedback of what people are feeling about it and what they like and they dislike and you can react very quickly to that. But what we're trying to do now is identify the key influencers in those merchant areas and make them distribution points.

For instance, there's 5000 taco trucks in Los Angeles and 300 people a day go to each one of those. Ten to thirty percent of those people have their own small business. This is not just small businesses. This is individual services like teaching piano or cutting someone's grass or a hairstylist. So, it doesn't make sense to ship 200 Squares to these 5000 taco trucks and allow them to give these away for free or with the purchase of a taco. We think it does. And then, people discover, "Well, this is interesting but how can I use it?" And then, suddenly I need to sell my MacBook Air on Craigslist and I can take the person's credit card instead of having them bring \$1200 to me or whatever I'm selling it for. That's how we're thinking about it right now. A lot of the way I think about marketing is through the product itself. So, I think the marketing function, the best aspect and the best it can do is surface the product as much as possible.

And to do that, we're doing this taco truck thing and we're also purchasing Facebook ads and Google ads and doing the standard thing and looking into print media and the Union of Accountants because they might be influencers and their trade magazines. So, it surfaces the product. And then, the product takes over. So, if the product is built in a beautiful way, it just inspires people hopefully to take action. We have about three to five seconds to inspire someone to take action to actually get Square. And then, we have about a week to get them to participate more and that's by taking in transaction. A lot of our users are not just accepting credit cards but they're also accepting cash. We realize with a receipt that it's great that we're sending electronic receipts through email and SMS for credit card payments. But a lot of people still pay with cash so why can't we offer those receipts for cash as well? Then, we're like, "Oh, we can be payment device-agnostic." We don't have to worry about that. So, we have about a week to get them to participate more and then about a month to get them to be users forevermore.

That's the phrasing that we think about. In terms of other competitors, the magical thing about Square is not just the hardware that it's so small and it's free. The app is free and the hardware is free and there is no setup cost and all these other things. But typically, when you go to accept credit cards, you have to get a merchant account. It's called a merchant account, which is a relationship with the bank, which has all these setup fees that has monthly minimums, that has a monthly fee. It has a one- to two-year contract. And then, they tell you that you're going to be paying 1.79% to accept credit cards and there's a little asterisk next to it. The little asterisk goes to "for qualified cards only", which represents a very, very small amount of cards actually used. So, the merchants are actually paying 3 to 3.5% and 50 cents on every single transaction. They have no idea they're doing that.

And so, at the end of the month, when they get the merchant's statement, the bank comes in and takes the money out. And if they don't have enough money in, then they get an overdraft. It's a mess and it's almost criminal. We're changing all that. We're making it a lot more transparent. We're not just focused on the hardware. So, the difference between us and those other competitors that you named is that we're focused on the software. We think the software experience is what can be beautiful. We think all of the data around the transaction is really, really interesting and something our users can do a lot with, something their users, who are the payers, can do a lot with and something we can do a lot with. Do you have any plans of breaking into retail merchants like Whole Foods, Safeway and such? So, the question is, "Do you have any plans to go to larger retail institutions?" I really like building utilities.

I like building utilities that scale from individual use all the way up to a larger use. You see this with Twitter, with people using it to talk about what they're having for breakfast, which is something that I do. It's meaningless to 99.9999% of the people in the world but it's extremely meaningful to my mother. So, it's a good use case. You have businesses using it. You have governments using it. And we see Square in the same way. You can use it to get your rent money or to tutor someone and get paid for that or sell something on Craigslist. But you can also use it in a retail environment. We have retailers in New York City who have multiple iPod touches and now they're just replicating the Apple Store and the Apple Store experience.

They're bringing the point of purchase to the decision. So, they don't have anyone lining up behind the cash register. Again, the experience feels awesome. That's the other thing about utilities. The more you can minimize the thinking around the mechanics in the moment, then more people are going to use it, more people are going to feel good about it. In Square's case, it's really focused on we're going to get you to the value of what you're actually intending to purchase or the service that you're intending to purchase and get all the mechanics of the payments out of the way. You can go home with the receipt and then you can interact with it there if you want. But you came for a cappuccino. You should get a cappuccino. You shouldn't have to worry about taking out your credit card and doing all this mess and like having to do something with three pieces of paper that you have no use for.

So, yes, we are very interested in the retail merchants and the larger merchants. The thing about the larger merchants is

they're very stubborn and they have a lot invested in their systems and they're very stubborn to change. So, our thinking around that is we're going to build them an API. We're going to introduce them to it. We're going to see what works. We're going to be focused entirely on payments. We'll fit in. We're going to make sense. And then, we disappear when they have to go back to their system. But we don't want to build inventory systems or anything like that.

Do you have a way to let you break into those big accounts, like Whole Foods, Safeway, how could you connect? What's that? How could we connect? You and I personally? Yes. I'll give you my email address afterwards. Am I choosing random people? Yeah, whatever you want. OK. You said that along your journey, you had become a better storyteller. And I would argue that you've become really good at it through here and through seeing some interviews. I just want you to tell us a little bit more about how you learned to become a very good storyteller. That's a great question. The biggest thing for me on that path is I needed to draw something out and I needed to get it out of my head. I found myself very early on thinking about something, like thinking about this early idea for Twitter and saying to myself, "I could build this." You have those shower moments or you're walking at midnights in some town in New York City and you've got this amazing brand-new ideas.

And then, you start thinking, "Well, I could really start doing this if only X and if I had this person or if this technology existed or if this happened or this happened." What I realized I was doing is I was constantly making excuses for not working on it. And then, the window had passed and then I couldn't do anything. I think it's really, really important to write it out or to draw it out or to code it. But you need to get it out of your head. The reason you have to get it out of your head is you need to be able to see it on a surface that is not in your mind. Once you can see it and once you can step back from it, then you can also decide, "This pass is my filter. This pass is my constraint. So, maybe I can show it and share it with some other people." Then, they'll be like, "That's the stupidest idea ever," or "That's somewhat interesting but maybe this and this and this." So, the sooner you can do that, then you have a lot of momentum around it. You can really decide if you want to commit to it and work on it more and put it on a shelf for a later date. The realization that I think everyone needs to have about that latter option, putting it on the shelf, is that you can come back to it.

It will surface back up in another piece of work or another idea at some point in your life. Having that ability to close off a chapter and move on is really, really important. You can't have all these open threads. That's what I realized I was doing. That also encouraged me to really write more and to really think about what is the story, how are people coming to this and like when I show my friends this, how are they going to react. I would write it down. I would actually treat it like a play. When I realized that I was writing plays, I read a lot more plays for style and for substance and for technique. I think it's really good. I think there is another company that I've always looked towards for inspiration.

I know a number of people in this room probably have the similar company in mind, which is Apple. Apple, I think, is run like a theater company. It has a great sense of pacing. It has a great sense of story. It has a great sense of execution. It's all event-driven. It's all stage-driven, the stage being a billboard and the stage being a keynote or the stage being a product launch. All of it has a very, very cohesive end-to-end story. I mean, you think about what happened when Steve Jobs came back to the company. The first thing he did is he killed every product line the company was working on.

For two years they had no product on the market whatsoever. All they had were a bunch of posters all around the world with Steve's heroes. It said, "Think different." It was just focused on bringing up the brand and making people wear the brand again and how the brand is aligning to this particular feeling and story. And then, they came out with the iMac and then built iTunes and then the iPod. They realized, "Wait a minute. People are carrying music on their phones now. So, we better build a phone, iPhone." So, this unfolding of the plot and the epic story has been very, very interesting to watch, especially if you look back to that time when he came back to the company. So, I have learned a lot from that company and other companies who operate in a similar fashion. Thank you so much. I actually was really appreciating the fact that you shared the story of how you started from childhood.

It's also good to know that I'm not the only who has ideas in New York City, which I don't have in San Francisco, not really. I'm really curious about this merchant account that you're talking about before. I mean, are you basically becoming an acquiring bank? How are you giving merchant account to people? We're doing some interesting things. We are an aggregator. There was another company that was an aggregator before us and that was PayPal. We learned a lot from PayPal. PayPal paved the way for what we're doing and made it a lot easier for what we're doing. The other thing that made things easier for us is I hired Keith Rabois, who was working at PayPal in the early days. He was the one that went to Capitol Hill and lobbied against these other organizations that were trying to shut PayPal down. He is now our COO.

He has a good understanding of how to get through a lot of these complexities. But when we first saw the merchant account, it was funny because we actually built a software and then we needed the payment back in. We were like, "How do we get a merchant account?" It is a nightmare to figure out how to get one of these things these days. We went to rockbottommerchantaccounts.com and we signed up for a merchant account as a glass artist. We said, "We are selling glass." We created a company to do it. It's called JDJM, which are the initials of my co-founder and I. We were passed off to this other organization with a cue and they told us a different price. And then, we were passed off to another organization and they had

another different price and another infrastructure. It was just a mess. But it was so inspiring to see that because we were like, "We can simplify this." There is no reason that this needs to exist in the world.

That goes back to the editorial. It's not what we can build. It's what we can take away. All the things that we can take away from this world are going to be the things that drive adoption. We were going to our partners and we were showing this to all these financial institutions. And we were like, "We're giving this away for free. We're giving the software away for free. We are not going to have any sort of merchant account. We're not going to have any monthly fees or any of those things." And the first thing they said to us literally was, "You're being really stupid. You're leaving money on the table."

People are used to paying for these things." We said, "Well, that's probably why you only have seven million people processing credit cards with you today." We can bring that number way, way up. We can enable everyone to accept a form of payment that every single person in this country is carrying around in their pocket, from a credit card to a debit card to a gift card to a prepaid card. Everyone knows exactly what this is and how to use it. So, we don't need to train the users with a new user behavior. They can use what they know. They can use the devices that they have in their pockets today, the simple tools that they have in their pockets to do everything they need to do. It doesn't require anything from the payer's side. The merchant account was the first to go. We're the only one that doesn't require a merchant account. The way we have set that up structurally is we have to work with an acquiring bank.

We have an acquiring bank and we pass through it. We don't want to be a bank because if we were a bank, then we're under all these regulations and so many people from the government are asking for our seven-year plan. It's hard enough coming up with a 30-day plan for a startup. So, we want to resist that for as long as possible. I'll get someone from the back, red shirt. I guess there's a lot of red shirts in there. My question is Square's goal to make credit cards easier to use or do you actually eventually want to get rid of them and are aiming for something much bigger and sort of take away credit card use? So, the question is, "Is Square's goal just to make credit cards easier to use or do you want to get rid of them and go after something bigger?" We want to make payments feel amazing. We are going to make this exchange of value feel awesome. Right now, everyone in this country is using this plastic device. The easiest thing for us to do is build this other plastic device that accepts this plastic device and then brings it in into the software.

And then, we have a software experience around it. We want to make that feel great. And we want to make people accounting for cash feel great as well. But at the end of the day, we want to constantly iterate that experience. So, we don't know what that looks like in the future. There's a lot of talk around NFC, which is near field communication, and what that means. NFC by its very nature is just identity. It's just identity and authentication. You can tie payments to it. You can tie walking up to your car and unlocking to it.

You can tie the same thing to your house and whatnot. Or you can tie like transactions to it. But the thing about it is it makes the transaction easier. So, if there's a mass of technology that makes a transaction easier than this, which everyone knows how to use, then we will accept that. We will use that. But we are not just not focused on accepting credit cards. We are focused on the payment experience and all the information and all the platform around payments. And when you really consider it and you really consider the potential of actually being able to carry the transaction end to end, then there's a massive amount of things that you can do with it. One swipe and you can suddenly check in to Foursquare, if you have that option turned on. I'm sure many of you have been to the malls, where you get those little buzzers.

They call you back to the counter when your food is ready. Why do you have to do that when you can swipe? You put in your phone number for a receipt. You've already used Square before, remember that. They're going to send you a text message when you need to go back to the counter. So, there's a ton of stuff we can build hooked off the transaction that's really, really interesting and has never really been done before in a cohesive way, where people are building the hardware and the software. That's what we're focused on. It's building that cohesive story end to end. With the rapid growth of Square, how are you actually keeping the company PCI-compliant, especially with all the wireless transmission of the data, which contains credit card? And this second card question to that, your merchant account does fine. But with the clearing house, how is that? So, the questions are, "With the rapid growth of Square, how are you keeping the company PCI-compliant?" which is a compliance we have to go under as a financial institution. And then, "Without the merchant account, how are you doing?" The clearing house, you all know it as a direct deposit.

It's also called ACH. So, PCI compliance is very interesting. You have all these auditors come in and they audit new lines of code and your practices, the cryptography you use and everything. So, we encrypt as soon as it comes off the reader. It's encrypted with our server's public key it had sent up through encrypted channels. And then, it's decrypted and then sent off to the processors and the banks and the whole chain of the credit card industry, which would take another hour to describe. But the way that we have made sure that we're always compliant is we do a lot of what's called paraprogramming in Square. We have two people at one computer, two keyboards, two mice. And you have two people working on the same problem. You have two eyes on every line of code, which happens to be one of the requirements for PCI compliance but something we just do naturally.

So, we have a lot of folks who know exactly what's happening in the system, who can encourage best practices. We were the fastest through our PCI audit that our auditor ever went through. The other thing that's happening with PCI is it's evolving very, very quickly. PCI was not written for mobile and it has to be rewritten for mobile. So, everything is in a gray area right now. There's going to be a lot of changes. And I think Square is going to inform a lot of these changes because I believe that a lot of our practices, our security practices and our safety practices, are better than what PCI mandates. We are engineers and we want to engineer a precise and safe and secure system from end to end. It goes back to that detail point. We want every single detail to be perfect.

A lot of these committees and auditors don't have the same source of ideas. On the clearing house side, what it means by that is I can accept the credit card but how do I get the money? So, you get the money by you download the application. You put in your address. We send you a Square in two to three days for free. And then, you take someone's money. You take \$50 from them. And then, you need to get the money out. What you do is you go to the bottom of the check book or on your online banking and you get the routing number and the account number. You put in your bank account information. We send a test transaction, which is two micro transactions.

And then, you verify that that is actually yours. And then, we start funneling the money to you every single night. So, the clearing house function is we're just telling all the money goes into a bank account, which is owned by our acquiring bank. Then, when we have the information, we tell that bank to send this amount to this bank account, which is the bank account that you put in. So, that means that we don't have to be under the same regulations that the banks do. They can handle all that. We don't have a need for any money transfer license because we're not crossing state lines, the bank is. We're just telling the bank to send this money from A to B. So, that's how it technically works. You talked about two major pain point problems that you managed to solve through your solution, one of them real-time communication and the other one payment processing and really customer relationship management.

Are there any other pain point, problems that you know of but don't really have the time to solve that, or don't want to solve? That's a great question. There's a lot of pain points in the company. So, we'd love to have you join the company. Yeah, there's going to be a lot. I think of Square as a platform that's going to build an ecosystem around it. We're going to be very, very good about releasing strong and clear APIs on how to build things. The best thing that you can do is hook something off that payment. A real-time hook off that payment goes back to that sort of visualization. I would just love to see a visualization of all commerce happening in the world right now. Can you imagine a visualization of money flowing from one place to another place, what that looks like? That's awesome.

So, I'd love to see projects like that. We're certainly not going to think about all of them. But we are going to think about a lot of them. We are going to do a lot. The company right now is already doing about eight different things. We have to coordinate all those eight different things into one thing. We're building hardware. We're fulfilling hardware. We're building a payment network that can't go down because if we go down, we lose money for one of our users. It's not just 140 characters, it's potentially \$140 because they can't make the sale.

We're building a risk and fraud function. We're building support. And then, we're building Web service and a client. So, there's a lot going on and there's going to be even more. I think of Square as a startup with many startups inside of it. That's how we're organizing the company internally. We're going to have a lot of different projects. They'll be coordinated by this one cohesive unit outside. Jack, with that, we have to call the event to a close. The business associates and the staff and I...

On behalf of DFJ and Bases, we want to thank you for your talk today and give you this trophy. Thank you very much.