

## Masters of Scale Episode Transcript: Mark Zuckerberg

**REID HOFFMAN:** Mark Zuckerberg famously launched Facebook as an undergraduate student at Harvard. But to understand the origins of his success, I'd suggest going back. Way back.

**MARK ZUCKERBERG:** When I was 10, 11, or 12 years old—I used to mostly build games for myself. And I started off by making these terrible games—I made this game I remember about a snowball fight, that I could play with my sisters, and I think the graphics were literally stick figures. But I could get my sisters to play, because they'd prefer playing the game than actually having a snowball fight outside where we grew up in New York.

**HOFFMAN:** A lot of tech entrepreneurs tell stories about the basic games they built as a kid. But what sets Mark apart is that his story just keeps going and going.

**ZUCKERBERG:** My dad was a dentist. Growing up, one of the neat things was that his dental office was actually connected to our home. The dentists and hygienists needed to share data on the patients. So I built a system where he could communicate with folks across rooms, and can also can communicate with me and my sisters upstairs—and I called it ZuckNet.

**REID:** Um, guys, could you hold that effect until we get to Facebook?

**ZUCKERBERG:** Because it was basically our little network, inside the Zuckerberg home, and it was fun. Basically, that was the predecessor to probably a bunch of different social software ideas that I explored over time, but very early on, very early on. And then, of course, AOL Instant Messenger came, and then everyone just used that.

**HOFFMAN:** Notice that ZuckNet actually beat AOL to market. As a teenage hacker, he was already moving faster than the industry giants. He didn't care if his product was perfect; he just wanted to get it out there. And I actually wish more entrepreneurs had the same carefree spirit of a teenage Mark. Because when it comes to launching a product, imperfect is perfect.

### [THEME MUSIC]

**HOFFMAN:** I'm Reid Hoffman, co-founder of LinkedIn and partner at Greylock. On this episode, I'm going to make the case for embarrassing yourself as an entrepreneur. In fact, if you're *not* embarrassed by your first product release, you've released it too late.

Why? Because your assumptions about what your users want are never exactly right. You need to test a real product with real customers as soon as possible—basically the moment you have a *bare bones* version. It's the fastest way to build something users can't resist.

Show your work early. Show it often. And above all, don't hole up in your garage and try to perfect your product on your own. You'll be wasting your time. More fatally, you'll be wasting your opportunity.

If you're Steve Jobs, you can wait for your product to be perfect. But there are almost *no* Steve Jobs in the world. The way for *most* entrepreneurs to create a great product is through a tight feedback loop with real customers using a real product. Don't fear imperfections. They won't make or break your company. What *will* make or break you is *speed*—how quickly you'll build things that users actually love.

03:28 My friend Mark Zuckerberg is the perfect person to talk to about this. He has no qualms about rushing out an imperfect product. In fact, his famous mantra is “Move fast and break things”—and I'd argue that it's the foundation of Facebook's success. If Mark cares about anything, it's making sure his team moves with the swiftness of a teen hacker, releasing products that are anything but perfect, so their audience can improve them.

**ZUCKERBERG:** I think the strategy of Facebook is to learn as quickly as possible what our community wants us to do—and that requires a culture that encourages people to try things and test things and fail.

**HOFFMAN:** But how did he get Facebook's 17,000-plus employees to shed their perfectionist streaks? You're about to find out. We'll start Mark's story when he was an undergraduate at Harvard. By this time, he was in the habit of slapping together programs on the fly. He couldn't help himself.

**ZUCKERBERG:** I took this class, “Rome of Augustus.” And the final exam—they were going to show some piece of art from the Augustan period in Rome, and you had to write an essay on the historical significance. And I was actually coding the first version of Facebook when I should have been studying for that, so a couple of days before the exam, I was like, “Alright, I'm kind of screwed.” This isn't something like math, where you could just show up, and figure out how to do the problem on the exam. You actually need to know the context of this, or else you can't write these essays.

**HOFFMAN:** Wait a second, rewind.

**ZUCKERBERG:** This isn't something like math, where you could just show up, and figure out how to do the problem on the exam.

**HOFFMAN:** Who does that? In any case, with the exam fast approaching, you might expect Mark to cut back on the coding. Instead, he doubled down on it.

**ZUCKERBERG:** I built this service where basically anyone in the class could go to it,

and it showed you a random piece of art, and you could type in whatever context you thought was important. And then after that, it would show you everything that everyone else in the class had put in. So it was a study tool, but it kind of crowd-sourced exactly what people needed to know for each piece of art. And the professor ended up telling me after that, that the grades on the final were higher than they'd ever been before. And I ended up passing that class.

**HOFFMAN:** Imagine, for a moment, what would have happened if Mark was a little less hacker and a little more perfectionist. What if he took his time to get the “Random Piece of Art” program just-so? It might have looked nicer. It might have had more features. But he would have missed the opportunity to put it in front of his classmates when they needed it, and more importantly, would have missed the learning about *how* they used it.

But many of us—and I’m guessing most of Mark’s Harvard classmates—have a tough time rushing things out. High-achieving people have a tendency to be perfectionists. And the same instincts that make us good students, can make us lousy entrepreneurs. Susan Danziger has a great analogy for why this is so hard. She’s the CEO of Ziggeo, a platform for recording and embedding high quality videos online. And here’s how she thinks about the perfectionist problem:

**SUSAN DANZIGER:** What you want to do as a startup is release the draft paper, the one that you’re sort of embarrassed for the teacher to read, the one that you would never actually hand in. We have to deprogram ourselves so that we actually release things that we are definitely, slightly embarrassed about.

**HOFFMAN:** Mark, as we’ve seen, is not the slightest bit embarrassed about releasing programs he slung together on a moment’s notice. In fact, he relishes it. Most of his programs had a pragmatic purpose—an urgent reason why people would give them a try—like a fast-approaching final on ancient art. But many of his programs also served as social experiments. He was always fascinated by what interested people. And what interested them? Other people.

**ZUCKERBERG:** When I was getting started at Harvard, I was really interested in the idea of how people could come together to create an understanding of things that they couldn’t do separately—so I built a lot of different tools in my time at Harvard. I built this thing Coursematch—at the beginning of the term, you’re trying to figure out what classes you should take. And so basically, downloaded the course catalog, made something so that you could say what courses you were interested in taking. And you could just click through the classes, and it would say who is in them, and who is thinking of taking it. It was all text, so it shouldn’t have been that fascinating, but people would just spend hours browsing this.

People just have such a thirst for understanding what’s going on with the people around

them in their community—that even something as simple as just understanding context around what courses someone is going to take, ended up being a really interesting thing—much more than you'd think.

**HOFFMAN:** Notice how user reaction changed the way Mark thinks. It gives him a new lens on what people want to do online. Their interest in the most mundane details of other people's lives consistently outstrips Mark's expectations. What do you think about Augustan art? What courses are you taking? Your peers want to know. And each time Mark hastily builds and releases a new social tool, it added more evidence to a theory he's held since childhood—the internet changes the way we socialize.

**ZUCKERBERG:** I've always been very interested in how people communicate. I'm part of the first generation of folks who really grew up with computers and the internet, and that did shape a lot of my childhood, even beyond Zucknet. One of the interesting formative memories that I have of using computers, and thinking about communicating with computers, was I went to this school that was the next town over. So every day, I would take a bus over this bridge to get to school. And at the end of the day, I'd take a bus ride home, and all my friends would be on the other side of the bridge.

So in order to communicate with them—we didn't all have cell phones back then, so I was communicating on AOL Instant Messenger—and all the subtle signaling around "away" messages, and the status updates that you'd have, and idle times—and all these different things. So I grew up being very attuned to all the nuance, and the need for people to control how they were communicating about themselves, and the signals that they were sending, and the importance in how effectively you could communicate and keep in touch with people—even if they were on the other side of a bridge—your whole social community, every day when you went home. That definitely shaped a lot of my philosophy on products that we've now built, around messaging especially, and how that should work.

**HOFFMAN:** Mark kept building and testing tools for online communities. And the communities kept springing up faster and rowdier than he had ever imagined. So he picked up the pace: hacking and releasing, hacking and releasing. Among his coding projects, there was a photo mash-up he created as a prank, and then—there was Facebook. As an aside, you're about to hear Mark make a passing reference to the the film "The Social Network"—or "the movie" as he calls it. He considers it a work of pure fiction. With only one exception.

**ZUCKERBERG:** I'd done this prank Facemash, which was one of the only true things covered in the movie. It was not really a predecessor to Facebook, any more than any of these other things were. But it was this prank thing that I did—which was, OK, could you produce this common understanding of who people at the school thought was the most attractive? It's not something I'm very proud of now—it was not my best moment, and pretty mean-spirited, and I wouldn't do it now. But it was another one of these tools.

After I'd built a bunch of these things, I remember the Harvard Crimson was like, "How could someone go build these things in a few days, yet it's going to take the student government two years to build an online Facebook?" So I was like, "OK, that shouldn't be the case. I can pull this stuff together, and make it so that there's a utility that people can understand what's going on with all the students around them at their school—and we can pull this together in a few weeks." So that was kind of the early thing. I wanted it to exist at Harvard, and I was just really interested in this idea of how you could pull communities together to produce collective understandings around things, and wanted to use it for myself. So I built it at Harvard, and then kind of scaled it from there.

**HOFFMAN:** Mark didn't invent the concept of a social network. He had well-established competitors in the form of MySpace and Friendster. And he didn't consider himself in their league. It may sound hard to believe now, but Mark assumed Facebook would go the way of Zucknet. Then, he was just a student hacking away at a student project...

**HOFFMAN:** You're building the first version of Facebook. You didn't obviously think at that time: "This is a global social platform." What was your first thought in building Facebook?

**ZUCKERBERG:** I did think that someone was going to build a global social platform; I just thought that there was no chance it was going to be us. It wasn't even like I thought about it, and was like, "Oh maybe it'll be us, probably not." It wasn't even a question that I asked—of course it wasn't going to be us. There are all these companies out there that know how to build this stuff—and we weren't a company. I figured that somewhere in the world, people were doing the real thing, and I was just messing around in my computer science classes. And I didn't realize until we actually got started with it, and kept going, that, hey, this actually was the real thing, and you can keep on scaling it and growing.

**HOFFMAN:** I've heard this refrain, "I didn't know it would be us," time and time again. Success has a funny way of sneaking up on the best entrepreneurs. They devote themselves to understanding and serving a teeny cohort of users. They don't always recognize that this intimate link is precisely what enables their product to evolve for the mass market. That's one reason I encourage entrepreneurs to release a product earlier than they'd like. Release, observe, react—over and over again.

It isn't just about speed, and it certainly isn't about sloppiness, but rather a precise dance between Facebook's tiny team and its growing user base. The users normally take the lead—but not always. Sometimes Mark had to break the choreography and give the users a twirl.

That's because you have to discern what users actually want. And Mark received an early education in the gap between what users say and what they do—particularly as he expanded the social network to new campuses.

**ZUCKERBERG:** We'd seen this funny dynamic where—we talked about how we started it at Harvard, and then we'd launch at Yale, and then all the people at Harvard would be like, "Oh, come on. Them?" And then it's at every step along the way. You go from Yale, and you launch at Columbia, and the people at Yale are like, "Aw really? Those guys?" We're at Indiana University, and Indiana State launches, and the people at Indiana University are like, "Come on." So we were used to this this dynamic of people assuming that a change is like, "Why are you doing this?" but then coming around pretty quickly.

**HOFFMAN:** Notice the lesson Mark is learning here—he's learning how to listen. Each college said they didn't want another college to join—and then, as each new college joined, the network got stronger, and people liked it more. This is a great example of how entrepreneurs need to both listen to what users say, and selectively ignore them. People can't always accurately predict their own tastes or even their own interests.

For example, a baseline for Facebook is: other people are going to upload pictures about you, other people are going to tag them, and when those other people tag them, your friends are going to see them, possibly before you. Do you want that product, yes or no? Most people, described that way, would say "I don't want that product! No, no, no! I don't want that product." And yet everyone's super happy with that product. People systemically are very poor at predicting their own reactions to new things.

Even as Mark became a savvy forecaster of what users want from Facebook, he still didn't think he was building a business. At the end of his second year at Harvard, in 2004, he and his co-founders left for summer break.

**HOFFMAN:** So what brought you to Silicon Valley?

**ZUCKERBERG:** I didn't mean to move out here. I'd been at Harvard for my freshman year, and then the summer between freshman and sophomore year, and then sophomore year is when I started Facebook. Dustin, my co-founder at Facebook, and I wanted to get out of Cambridge for the summer, so we're like, "Alright, where should we go to work on Facebook?" We're like, "Alright, let's go to Silicon Valley. That's this mythical place where all these companies come from." And I remember we explicitly talked about, one day, we might start a company—and this was after we'd started Facebook.

So the clear implication was, one day we were going to create a company, but this was obviously not the company that we were going to create. By the end of sophomore year, I think there were about 28 or 30 schools that we had spread to, because literally people were just writing in from schools, saying, "Hey, can we get this at our school?" So we just ranked schools by how many requests we had for it, and then whenever we had enough server capacity, we would just launch at the school that had the most requests

to us about wanting it. And so we moved out here for the summer, expecting to go back to school in the fall. We had our first round of investment that Peter Thiel led.

**VOICE:** Peter Thiel is the co-founder of PayPal and an early investor in Facebook.

**ZUCKERBERG:** And you participated in—so we're grateful for that, and I'm glad that that worked out well for all of us. But I remember we told Peter, we're going to go back to school in the fall. And he clearly just didn't believe us. So he was right, we were wrong. Come fall, we realized that it was just too much work to scale up to hundreds of schools, at that point, while doing a full course load. Harvard lets you take time off, so we're just like, "All right, we'll take a term off." And then that kind of just continued.

**HOFFMAN:** "Continued" is an understatement. To give you a sense of how quickly Facebook took off, we asked Hall of Fame sportscaster and podcaster, Dick Stockton, to offer the play-by-play of Facebook's growth over the next few years.

**DICK STOCKTON:** It's 2005, Facebook expands to 2,000 colleges.

They can't get enough!

By 2006, Zuck turns down a billion-dollar buyout.

Later that year, the genius programmer gets a \$15 billion offer. Deeee-nied!

2008. This hacker-turned-internet titan drafts Sheryl Sandberg.

One year later, Facebook is profitable! Zuck's offense seems unbeatable.

By 2012, he takes Facebook public! I haven't seen a run-and-gun team like this since Doug Moe coached the Denver Nuggets.

By 2015, Facebook logs 1 billion active users.

What a ballgame!

**HOFFMAN:** If you're a fan of Dick Stockton, you may be interested to know that he has a podcast of his own. It's called Stockton!, with an exclamation point.

Underlying all of Facebook's early achievements was a consistent philosophy, practiced every day by its employees—"Move fast and break things." This mantra was plastered all over Facebook's headquarters. Its core belief is to release products early—when they can still embarrass you—and iterate upon them quickly in response to what you learn from your customers. Do users love it? Do they hate it? Worst of all: Do they ignore it?

Maybe the product breaks under certain conditions. Maybe it's embraced by certain segments of your community, and rejected by others. Maybe they use it, but for a different purpose than you were expecting. The only way to learn these lessons is with real users in real settings.

**ZUCKERBERG:** I think when you're building Internet software that you can change every day, I think that there's really something to the strategy of just learn and go as quickly as you can. Even if not every single release is perfect, I think you're going to end up doing better over a year or two than you would be if you just waited to get feedback for a year of all your ideas. So that's really core. I think more than any single product that we're working on at this point, that focus on learning quickly is the strategy of the company.

**HOFFMAN:** This philosophy was born in the tech industry, but plenty of leaders apply these nontraditional methods to more traditional industries. Take Kara Goldin. She's the Founder and CEO of Hint Inc., a \$90 million beverage company that sells water infused with fruit flavors. Personally, I love the cucumber. Kara puts this idea into practice. We reached out to her to learn how she thinks about releasing imperfect products—ones that people will drink. She starts off by debunking the idea that your product has to be perfect.

**KARA GOLDIN:** The number of entrepreneurs that I talked to that are in this holding pattern because they think that something needs to be perfect prior to bringing it to market is astonishing, frankly. If you're not OK with flying the plane as you're building it, then if that really makes you uncomfortable, and you get frozen, and you really can't move, then you're in trouble.

**HOFFMAN:** Kara made a bold decision not to add sugar or preservatives to her bottled drinks. And at first, this meant the drinks went bad really quickly. But she still wanted to know if people liked the flavor. So she started selling bottles of Hint even as she was scouring the world for ingredients that might extend its shelf life.

**GOLDIN:** We were really watching our product carefully, and making sure that the taste profile didn't change. And again, we knew that it only had a few weeks' shelf life. We were constantly watching it to make sure that it didn't, for example, grow mold—which in a non-preserved product, could. So I always tell entrepreneurs, "If you don't think that your product is perfect, but you think it's *pretty* good, and you want to actually figure out if it's going to get some sort of reception—get it into some stores." Just get it out there and you can always improve it along the way.

**HOFFMAN:** It is important to distinguish between digital world and the physical world—or as we like to say in Silicon Valley, the world of bits and the world of atoms. Because the world of bits is much more malleable and easy to refactor. Atoms are much more expensive. But every entrepreneur must walk this fine line between fixable and fatal. The important thing is that you push your experimentation to the limit. For Mark and his growing team at Facebook, the mantra

of “move fast and break things” served as a rallying cry, and the philosophy made a lot of sense when they were a fledgling startup. But when you have thousands of employees moving fast and breaking things, someone has to clean up their messes. As Facebook grew, Mark became aware of a growing tension between his hacker ethos—to move fast—and his responsibility as CEO to avoid breaking things on such a massive scale. Thus a new mantra was born: “Move fast...with stable infrastructure”

**ZUCKERBERG:** Well, it's less catchy.

**HOFFMAN:** But the best mantras do more than just sound good. They give you the resolve to make tough decisions.

**ZUCKERBERG:** So "move fast," I think, is interesting, because you actually have to be willing to give something up to get it. And the question is, "What are you willing to give up?" And early on, the trade was, "Move fast and break things." The idea was, we will tolerate some amount of bugs and flaws in the service of moving faster and learning what our community wants faster. But we got to a point where it was taking us more time to go back and fix the bugs and issues that we were creating than the speed that we were gaining by going faster.

So we're like, "OK, we need a new strategy to enable us to move fast." And what we came up with was: we're going to do this by building the best infrastructure. So an engineer who comes from any company is going to be able to ship their product faster here—and test it better, and move faster, and all these things—at Facebook, than anywhere else in the world. So that's what we mean by "Move fast with stable infrastructure." But again, we don't get it for free—we invest a huge amount in building infrastructure. So I think these values always come down to, what are you willing to give up to get something? Because they're not free—nothing is.

**HOFFMAN:** Mark concedes that “Move fast with stable infrastructure” is a clunky mantra. It doesn't have the snappy appeal of “Move fast and break things,” but it adds guardrails to protect the company in its new phase. You can still release something bold and half-baked. You can still break things. Just don't break the infrastructure. Because the infrastructure is too slow to repair, and if you break the infrastructure, it will ultimately slow you down.

And with that new rule in mind, Mark laid the groundwork for mass experimentation on Facebook. How does it work exactly? One thing you should know about Facebook: It has many faces.

**ZUCKERBERG:** At any given point in time, there isn't just one version of Facebook running, there are probably 10,000. Any engineer at the company can basically decide that they want to test something. There are some rules on sensitive things, but in general, an engineer can test something, and they can launch a version of Facebook not

to the whole community, but maybe to 10,000 people or 50,000 people—whatever is necessary to get a good test of an experience. And then, they get a readout of how that affected all of the different metrics and things that we care about. How were people connecting? How were people sharing? Do people have more friends in this version? Of course, business metrics, like how does this cost the efficiency of running the service, how much revenue are we making?

It can even kick off qualitative studies and ask people how happy they are with this version. And then at the end of that, the engineer can come to their manager, and say, "Hey, here's what I built, these are the results. Do we want to explore this further and do this?" And giving people the tools to be able to go get that data without having to argue whether their idea's good through layers of management before testing something, frees people up to move quicker. If the thing doesn't work, then we add that to our documentation of all the lessons that we've learned over time. If it does work, then we can incorporate those small changes into the base of what Facebook is—that now everyone else who is trying to build an improvement, that's the new baseline that they need to get against.

**HOFFMAN:** And here's the thing. To really give your employees the freedom to experiment, you have to get comfortable with embarrassment. I asked Sheryl Sandberg, Facebook's Chief Operating Officer, to tell the story of a legendary embarrassment that's now part of company lore.

**SHERYL SANDBERG:** So we have a very famous story at Facebook about a young summer intern named Ben who wanted to help figure out how we could not take the site down, and to understand how we can recover from bugs triggered. So he triggered the bug, and took the site down for 30 minutes. You know, in our industry, that is crazy. He got hired full-time, and they started calling what he did "Ben Testing." We put things in place so that you wouldn't take the site down, but it was the celebration of, "That was a good idea—not well executed—but we still want to do those tests." I think being pretty open about where we make mistakes—Mark does it, I do it, I make mistakes all the time.

**HOFFMAN:** This willingness to hazard mistakes isn't just liberating for Facebook's employees. It enables Mark to focus on the things that matter.

**ZUCKERBERG:** It creates this mode of running the company where what I do is I figure out what the high-level directions I think we should go in are, who the best people are to work on those things. But then on a day-to-day basis, a lot of the decisions that I'm making are like, "OK, is this going to destroy the company?" Because if not, then let them test it. If the cost of the test isn't going to be super high, then in general we're going to learn a lot more by experimenting and by letting the teams go and explore the things that they think are worth exploring than by having a heavy hand in that.

**HOFFMAN:** With that in mind, I want to amend my theory—I do believe that if you're not embarrassed by your first product release, you've released it too late. But I should add your feeling of embarrassment won't dissipate by the second build or the third. In fact, it will continue even if you've scaled the product to more than one billion users. The most innovative products should be a perpetual cause of embarrassment.

The word "embarrassment" plays a key role here. Over the years, some people have interpreted my theory as permission to cut corners, act recklessly, or proceed without a clear plan.

But notice: I said "If you're not *embarrassed* by your product." I *didn't* say "If you're not *indicted*" or "If you're not *deeply ashamed* by your product." Indeed, if you launched so fast that your product generates lawsuits, alienates users, or burns through capital without any apparent gain, you did in fact launch too soon. Without doubt, there are risks that come with experimenting at scale. With each new test, you run the risk of both embarrassment and failure—and no one is really immune to a fear of failure. How does Mark Zuckerberg shed his fear? One word: opportunity.

**ZUCKERBERG:** And this just gets down to something that I think is pretty personal for me, which is, I'm much more motivated by making sure that we have the biggest impact on the world than by building a business, or making sure we don't fail. I have more fear in my life that we aren't going to maximize the opportunity that we have than that we mess something up and the business goes badly.

**HOFFMAN:** The opportunity to build an enduring product far outweighs the costs of alienating a few users along the way. And the sooner you internalize that tradeoff, the faster you'll move along the path to scale. So quit fussing. Take it from me. I'm about to wrap up this episode, right about here, any second now. And if you don't notice anything glaringly wrong with it, then our producers clearly released it too late.

I'm Reid Hoffman. Thank you for listening.