



Stanford eCorner

Driving Growth + Authenticity [Entire Talk]

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Di-Ann Eisnor, director of growth for Waze, explores whether authenticity can be preserved when a well-meaning startup scales to a workforce of hundreds and a user community of about a billion. Eisnor describes how the crowdsourced navigation and real-time traffic application has moved on from virtual cupcakes to encouraging carpooling in its quest to eliminate traffic congestion around the world.



Transcript

- Thank you very much. So as I was speaking with Anise, preparing for this talk, which was only a week and a half ago or so, she said, we like it when people give brand new talks. Is there something you can talk about that you've never shared before, something that's a little reflective, something that can give the student's insights? And this was around the same time I had given another talk. And I always hear the same thing after the talks, that was so authentic. And I really wanted to kind of investigate, A, what people meant by that and B, why it left such a bad taste in my mouth whenever I heard the term. And so that's what I'm going to talk about today. I haven't talked about this topic publicly so I hope that great conversation will be sparked by it and that we'll be able to have some robust Q&A So thank you. The title of the talk, Finding Rainbows and Unicorns. So in Silicon Valley of course, we all know what a unicorn is but mixing it with the rainbows, I think starts to get you into the idea of what this journey of building Waze was like.

I started the US office of Waze almost eight years ago. And it was just a couple of people in Israel at the time, and we've slowly grown and three years ago we were acquired by Google. So, authentic, we're going to cover that, what the heck does that mean? We're going to look at this notion of fitting in and standing out, what's your relationship within your community, what's your relationship to the culture that you have and that you're building as an entrepreneur. What are the social contracts that are implicit when you're the CEO of a start-up. When you are putting a product out into the world. What are the contracts that you have that you are making with you users, with your team, and what are we saying that we don't realize we're saying. And then third, so you build this culture, you build this community, does it scale? And is it right for it to scale? And so these are some of the topics that we're going to go through today. So you always start with a dictionary right? So authentic, of undisputed origin, genuine, true, you get it, but when people say that about me, I think they mean something more like this. Naive outsider who is intensely optimistic. I could throw in a lot of other adjectives but you get the idea.

When I hear authentic, I hear okay maybe that's a little off and just to kind of go into that a little bit. Naive, my ninth birthday, I was in love with Michael Jackson, Thriller was out, days were good, I invited him to perform at my ninth birthday. And he didn't reply but I was sure he was coming. So I told everybody at the birthday that Michael Jackson would be performing and of course I had a lot of kids over I was very popular that week and then he didn't show up. And okay, that's a lesson you learn but that kind of naive feeling that you can make anything happen has served me personally, very well. And I think it's an important thing for entrepreneurs to be able to harness because you need it a lot. Because Michael Jackson usually won't show up but sometimes he does, not these days. Outsider. Everyone in the Valley when you first get here you feel like they've all been to Stanford. Or they've all been to MIT and everyone has advanced degrees.

And I come from a family of truckers in a kind of post industrial town in Massachusetts without an advanced degree. You heard that I studied painting and business. So it was kind of this new notion to come in here so when someone, I give a talk at

a place like this, and they say that's so authentic, I hear outsider. And intensely optimistic. Just listen for a second. (upbeat music) ? Ooh child things are going to get easier - It's a kind of a life long theme song. So that's what it's like to be inside my head on this journey. Now let's look at what that means within the context of Waze. Because if I walked around with rainbows and unicorns singing that song all day long, that would be called a non-profit, that would not be a company. Within the context of my team, I've gotten to know Israeli Special Forces guys, I've got cynics, I've got academics, I've got the best engineers on the planet, so the fact that I can stand up here and even in the company and be talking about this rainbow and unicorny stuff, which I actually don't talk about but I have that vibe.

It allows me to not to have all of the cons, that come with the pros and cons of who you are, right? How do you harness who you are to become, to make it as much of a pro as possible? And I think that's what we're really trying actively to build within the culture of our company. When we sold the company, we were just over 100, now we're about 350, which is still relatively small for what we do. Some of the things that have worked for us, so what is it about building this team that we've tried to keep in mind. So obviously you want a diverse team and from some of the news that's been coming out of Silicon Valley the last couple of weeks, it can seem disheartening but it's not always like that. We have an incredibly diverse team and we're committed to getting these new perspectives that are coming in because think that healthy debate is really important. But it's not just diversity for diversity's sake right? You need a common set of values, a common purpose that you're pushing toward and without that it's just a lot of noise. It's very difficult as an entrepreneur to stay focus and to prioritize, these are two of our biggest challenges. And it's all the things that you say no to, not the things you say yes to that matter most. So that common purpose is what you check yourself against. In terms of the debate, I'm often asked well, how do you work with Israelis? And you know, I was the first non-Israeli there and all of that, and you know, it's amazing.

We would go into a room, we would have a very difficult decision to make, and we would fight, and we would scream and the doors closed, and we would come out at the end of the day with a decision, everybody pointed in the same direction and never looked back. Because we were encouraged to be able to have a space to get anything out that was relevant and that's so important in the early days when you have no idea what the heck you're building or who it's for. Oh, yeah, well let's just go here 'cause you already saw it. Two other things that were important. Squashing territorialism. You know it's difficult when someone is running say I don't know, community programs. And then all of a sudden you have 500,000 members of your map editing community. It's not that the same person can necessarily do that all by themselves, but they might feel territorial about it. And how do you squash it? It's a very normal human thing, how can you not let it fester, address it and move on? And then of course, the no asshole policy is something that we take very very seriously. The other thing I would like to mention is not just respecting the differences within the team but kind of reveling in it.

Everybody will come to me with their problem because they know that they won't judge it. Everyone will go to X person for something else. It's really reveling in those differences in what make people take and what brings out the best in them. When they are at their best within the company and for every single person at the company to know that's not always a single person. There's never one person who can solve all of those problems. And this is my team. We don't take ourselves too seriously as you can tell. Usually we're fixing bugs and doing complicated things and doing administrative tasks but that's also what it's like and that's important. I want to go back to this notion of authenticity for a second and look at some of the aspects, people who have been studying it over the years. ^So you start with Socrates.

^And he comes at it from the perspective of artists. ^How as an artist can you be true to the work ^you want to create when there are things ^like commercial factors and society, right? And it's interesting to see it evolve over time from not just the artist but if you parallel what an entrepreneur is today, I'm not saying they're artists but we are creating things, we're creating big important things. And it is a question, how do you stay true to the thing it is that you want to build. When you're actually building it to make money or you're at a scale that we've never had before. When in history, Socrates surely never thought, oh a billion are going to see this artist's work and be influenced by it. ^And then there's the existentialists, ^and for them particularly Sartre, ^he was talking about authenticity in the context ^of negative space, he could only really say ^what's inauthentic, and he was kind of ^obsessed by it, right? And that makes me think about something that is maybe authenticity is not something that exists. I don't want to go philosophical here because we're building companies. But it is worth considering that this notion of authenticity is only relevant in the context of some kind of society. And maybe that society is your company. And then you have Karl Marx who starts to see evil and capitalism tied to inauthenticity.

to really challenge it, and what we're seeing is kind of this interesting commercial arc, right? The more capitalism influences a society the more we seem to be talking about this authenticity stuff, I'm not judging, just it's interesting. ^And then you have in the '60s that authentic living ^was really the counter-culture right? ^They used the term authenticity to describe ^the choices they were making in their lives, ^that they were fighting against the man ^and they were standing up for something. So it's just an interesting arc to look at that. Now there was a recent study about the most authentic brand. So now we're talking about not the authenticity of a person but the authenticity of a brand. And the number one most authentic brand was Disney. But the people who took the survey said that the most important quality was real. They took the most fantasy based brand and gave it the most real attribute. And so we're in this interesting place that we're trying to figure out, I guess, what's real, what's not real,

where do I fit in to all of these changes and the beautiful thing about being an entrepreneur is that work environment has become kind of a proxy for society right? We spend so much time in our workplaces, we're growing up with these people, I've been at Waze for eight years. No one was even married, never mind had kids when I first started there.

So we invest a lot in these micro-societies that are our work cultures. And I think as entrepreneurs we don't think about it a lot, we're too busy. So that's why I want to talk about this today. Social contract. Since I was studying all the philosophers for this talk I thought I would just throw this in here as well and get to some Rousseau and those guys. What are we implicitly saying right. So we all have employment contracts, we have user terms and conditions that we have, we have all these written things that don't really mean a lot but we have implicit things that we're saying. And by the fact that our whole team is making up lyrics about Waze and singing them together, that says something about how we're supposed to interact with each other. And it's not an environment that's for everybody. So one of the things we're saying all the time through our product is that we're imperfect.

We didn't start and say we have the best navigation application. Why? Because it was crowd source and that would have been a total lie. But we had this idea that we could get there if everybody worked together. So we started with just a blank map. Literally you drove and you saw yourself make a road, just by driving and then you could go to a website and give that road a name. That's how the whole thing started. It was a very humble and very honest and highly imperfect. You will still find typos in Waze because everything is written by people who don't live in the US. Over time we could add roads. And we could add traffic and now I feel pretty confident saying we're probably the best traffic application you've ever used and we are definitely the largest community of drivers.

But when you get to the point where you can say, okay now I feel confident in that, that means you're ready to achieve something else. This is our one of our map editor community meetups. Everything about us has been about real people. We spent too much money on travel when we could have had video chats when we were all over the world because nothing could replace people. We have phenomenal algorithms that are obviously taking all this real time data and try to turn it into something that can guide you around a city and get you where you need to go. But it's those humans, it's the map editors, it's that community that have remained at the heart of everything we've done. And still are. I mean most people in that room have my email address, they have my phone number, they can contact me and it's a relationship. And without, over the years people have asked, some from big companies, I want a community. I think well there has to be something that is completely core, are you ready to be there when they call you in the middle of the night because something's down because they care so much about your product.

And if you can't return that, if you can't be the other side of that relationship, then I don't think that you can really consider having somebody wanting to invest heavily in helping your product become great. And we're weird, still. I mean we do have this reliability, we are going to get you from point A to point B but you can have these crazy avatars, you can have them special for pride day, you can be guided by Morgan Freeman, it's not like anything you've seen from a navigation company before and it's not that we were trying to be different it's that it is so hard to get people to use a product that we just want it to be fun. Everybody wanted to help. Every time you drive, it's adding data into a system that's going to make a city more efficient. But let's face it, we're all a little bit lazy, we want it to be easy and we want it to be fun. So what that's added up to is we now have about 200 cities or so, that have a partnership with us. So we keep extending this idea of what is community. And it's called the connected citizens program. It hits about a billion people, in terms of trying to give them the best information about what's happening in real time in their city, whether it's a protest that's breaking out, whether it's a natural disaster, whatever it is that's going on, we partner with cities and we give them information about closures that we get and they give us information in exchange.

But again, that wasn't enough, collecting all the information. We now get these cities together, members of these cities in person every year. And they are sharing case studies, they're sharing data, they're sharing software in this community where it's almost as if you're, Jakarta, I do a prototype of something, I pilot a new mobility strategy in my city and the best I can hope for is that I can use it in other cities in Indonesia. With this program, I can pilot something as Jakarta and roll it out across the world. And I can measure it for the first time. Because we've never had access to so much of this real time information. So on results, Jakarta tested something new this summer. It's about a 15 billion dollar traffic problem they have. And they decided to roll out a license plate based routing strategy. And this is something that they heard from our partners, they got some good information on it.

We were able to give them some additional data. They tested and they rolled it out within like 60 days. And it's reduced morning traffic times, the delays, by 19 percent. So we're using data, intangible stuff to try and make changes in physical infrastructure and it's beginning to work and it's only the beginning. We have a number of emergency responders that use Waze inside of their own traffic management centers. And on Waze about 30,000 crashes are reported a day and most of the time it comes into Waze before it would come into something like a 911 system. So these emergency responders tell us that they're getting to the scene of an accident four to seven minutes earlier than they would otherwise. This is a big deal, it's not

just traffic. Another congestion example is Rio. Rio has been a fantastic partner.

The mayor told me four years ago, you can use my city as a lab. Other mayors have said that too but they kept it and they let us really get in and play and understand what was happening. So before the Olympics they knew that they were going to have to add a million people to a city of only 6.3 million. And you can imagine what a nightmare that was going to be trying to get the athletes to and from. So they added three new highways and they relied on our data to figure out where to put them. And after that, they were able to measure, again usually for the first time, because they have to literally put people out on the streets or cameras that are in a very specific array to capture any of this. And they were able to tell that they reduced congestion, again morning commute only by 27 percent. So we're obviously thinking about scale. Where do we go from here? So the question as it relates to preparing for this talk, is authenticity scalable first, and should you try to scale a culture because if you add each new person theoretically the culture will shift somewhat. And we already said that authenticity only matters in the context of a society.

So I was just thinking, does that stuff even matter? We were thinking alright, where do we go, let's go back to the company for a second, this transportation revolution. We all know that in X years, actually let's just go there, we're going to have self driving, self flying cars that are controlled by our brains. But that's going to take a while so in the meantime, how do you create services that take advantage of all of that data that we're collecting, how do you take everything you know about how people move and this community of people together and use it to try and end traffic. We want to go much much bigger, let's tap into that optimism that we talked about before. Let's talk about the fact that we don't mind being imperfect and that we will make mistakes and see how far we can push it. And so the last video. - [Announcer] You see everyday millions of drivers are already happening with Waze, the largest community of drivers on the planet. Waze analyzes these drives so pick up and drop off are minimum and the entire carpool experience is easy and hassle free, just like pitching in for gas, riders get a comfortable and affordable ride. And drivers cover their gas costs just by helping someone on the way. It's Carpool powered by Waze.

So why would I show you a product video in a talk about authenticity? We just launched this product, it's still in testing and it was really incredible to start talking to our users right? To this Waze community and realize that because they were already a member of the Waze community, they just happen to be Wazing alone, that they were really interested and excited to Waze together, they were already a part of this mission around getting rid of traffic. They already felt some kind of connection in being part of something bigger, I don't want to go all the way to movement, but they do feel connected to something, so our bet is that we are going to be able to take this thing we've built and add on new pieces that are very true to what the mission has always been. And see if we can't really keep pushing it and pushing it. Basically it should look something like this, that's what I hope. And it's not in 10 years, you don't need flying cars, you need a community of people and some great underlying technology and a great service that's going to underlie it. So looking back over this rigorous ten days of exploring authenticity thanks to ETL, I basically realized that authentic in my case is just about first of all, finding this crazy group of Israelis who I decided to join the company early on, continuing to shape this culture and to take it very seriously to keep building it. What I hope to leave you guys with, the future entrepreneurs, especially now because again the news and the discussion are let's leave politics aside, that's a whole other level thing but even what's happening in Silicon Valley where we think we're a little better, the lawsuits that have been coming out, the conversations about negative team dynamics, what it means for women, what it means for muslims, what it means for all of that, I'm not saying that it's all rainbows and unicorns but I want to leave you with the fact that you are not making products and building businesses because you are, right? Waze was a unicorn but that maybe entrepreneurs can build cultures that are worth scaling. And that's what I hope you guys will do with your amazing impressive financial ventures, that you'll build something worth scaling culturally because we need it and these are the labs for new kinds of societies. That's it. So open up to questions.

Way in the back. - [Man] So my favorite feature on Waze was when you brought in Kevin Hart as a guest voice and you nearly steered me off a roundabout but I wanted to ask you, you know you have sort of an unusual position of having been acquired by a company with a competing product. You could open Waze or you could open Google Maps for navigation, who do maintain your identity and what are the differentiators? - So for the people on the stream I will repeat the question, which is how do we look at, how do we think about the fact that we were acquired by a company with a possibly competing product? You could open Google Maps or you could open Waze. And it's a good question. Within the Google family, we are still fairly autonomous. There are parts of our products that can really help each other us in Google Map. So for example so of the data on the backend we give them our incidents, they give us street view for our map editing community. Related to the user experience or how everything feels, we're still very much on our own. And for us, it's always been about driving. And I think for Google Maps it's first of all, they're much bigger than us and they cover a whole swath of things that Google is good at right, like best ways to find X using Y mode of transportation and I think that they'll keep growing in that way and I think that we will keep growing on the mission of ending traffic, now that's an assumption but we haven't had any problems so far.

We're competing against traffic, that's how we think of it. - [Man 2] So I'm curious, the most difficult part of all this is building a culture. You talk about how you go about sort of rather than a touchy feely way identifying selecting some kind of pragmatic fashion to fit in to build and reinforce that culture. - Yeah it's really not very touchy feely at Waze. I'm showing you things that

kind of go there but really, oh sorry, the question was, how do you without having it being a touchy feely way build this culture, find the people you think are going to be right for the culture. There's two things. One is that we are very direct and a very transparent company and in the interview process we're looking very much for culture fit. Are they being very very direct back? One of my favorite interview questions is to talk about a failure you've had in the last year because there are people who say I can't think of any and they are not right for us. There are those that you can glean a lot. I think self awareness is important.

Trying to figure out if people are self aware. Are they going to be the people that will trust their peers and by the way there are some cultures and it's totally justifiable where you shouldn't, you should be ruthless and compete and that's fine too but then they should keep trying to hire those people. So it's about what are the questions you ask and what are the things you do to try and see there's the right fit. Because ours is for us but there are other companies who do things a different way and could be a whole company of only assholes and that would be fine too but then make sure you don't bring in a non-asshole because they won't fit in. What else do we do? We just spend a lot of time thinking through that before anyone even gets in the door. And then we have a pretty strong culture so any kind of, anything that can start to awry, usually the culture will on its own bring people back. I mean, you're just surrounded by so many impressive people, it's hard to put ego out front when you're amidst that. - [Man 3] I notice that you're not in China, Russia, South Korea or Japan yet, any plans to go there and there would be any complications because you're owned by Google and China? - So we are in Russia, poorly. It's a very bad execution because we don't have a lot of data, we don't have a lot of users, but we are there and that's the same for most of those countries. It's not where we operate, except in the case of China by the way, but it's not necessarily where we operate but where are we getting the kind of organic base of users that are coming in because the other thing that we do is we don't really spend that much money on marketing.

It starts with the community and then we can come in and market things and kind of fan the flames but that happens after there's some kind of honest, organic traction, so yeah, obviously we're thinking about those other markets but we're in so many markets and we kind of, there's a few factors for how to choose where to go, one is obviously where we have the most organic traction. Two is where we're making the most money from an advertising perspective and you want to invest more there. And those are just a couple. With the Carpool it's really about what are the areas that need this solution the most. By the way this is my best friend Scott. He's the founder of Meet Up. - [Scott] Waze has always had like a big vision a big exciting imaginative vision for the world and yet you came out publicly basically saying, hey we just want to save you five minutes. And how do you balance as a culture of the company as well as how you talk publicly to the world, do you talk about the big vision or do you just talk about hey, we just want to save you five minutes. - It's a good question and by the way, I'm also on the board on Meet Up and Scott is a huge inspiration for the kind of culture that he's built in his own company that I want to try and create in mine. Oh sorry, I always forget repeating the question.

Can you, the quick version. - [Scott] Can you talk about vision, inside or outside the company, or do you just say we're here to save five minutes? - So the question is do we talk about the vision inside and outside of the company. Because we have this big vision but we say very humbly we just want to save you five minutes a day. And that was enough. So how do we talk about it publicly. It's not common that we'll talk publicly about we want to end traffic and all that, I think it depends on the phase of the company. Early days of Waze we did because there's so much action around transportation revolution right now and it's such an important topic we will likely come out again on that but we will do it in our way which is probably something more like, get paid for saving the world. It'll still be something that doesn't make you expect too much because we don't know. We have a big vision but without every single person in this room on those roads, we will never get there, and I think we're always mindful of that. Way in the back.

- [Woman] That's a nice logo about what I want to ask you about. So Waze is a good thing, but Waze focuses on the driver in the car but our community is bigger than just the driver so I know that Waze has caused a lot of problems in communities sometimes gridlock in cities, main roads, because people are trying to go around traffic and sometimes it tells drivers to go through small roads but it shouldn't be going and I haven't seen the ability where the community can go into Waze and say no that's not the road you should be taking. - So this is a question about Waze having cut through traffic into small neighborhoods. And I've spent a lot of time with mayors on this topic and it's an important one for us to think about as a community because our roads are public and there's been no way to correctly utilize the roads so that we reduce traffic, maximally across the whole system. Now this is democracy and it's hard for people that have had a quiet neighborhood but it is using road capacity in an entire city in the most efficient way. There are even penalties for people to take smaller roads. So community means that if you, if a hundred people are going to point A to point B and one person wants to make a change, they're only a voice out of one in a hundred. This really is democratic. However, that's why I'm also starting to talk about Carpool because if we can literally get cars off the road, it won't be just a capacity problem anymore, right? We'll free it up. And there are different issues in different areas.

So for example, in Los Angeles and in San Francisco, we have peaks, we have the morning commute where the congestion will peak in the morning and peak in the evening and during the day it's fine, doesn't really matter, but places like Jakarta and San Paulo, they start in the morning and it doesn't stop until the night. They are maxed out. So strategies in places

like L.A. and San Francisco are about using time as a factor in addition to car pooling and getting cars off the road. And then in places like Jakarta, you can't really play with time or space anymore so we really have to get new kinds of systems out there, quickly. In the back next to. - [Woman 2] How are you going to do with some cities that just stop and don't want to have cars anymore, for example, there are businesses in Paris that say no, we're just going to stop. - So what do about cities who don't want cars at all? I wouldn't worry about that as Waze. There are cities that have some very beautiful urban areas in the kind of center where cars won't be allowed and I think that's a very good thing by the way, we could all walk another 500 feet here and there and be saving billions of dollars of waste and CO2 and all of that. Most cars need to and we've got so much time, we're talking about 50 years of evolution of infrastructure that we are going to be embarking on.

Los Angeles county, 14 percent of the entire square footage of the city guess what it is, does anybody know, parking lots, exactly, good job. Then if you add the road grid itself, you add gas stations, you add the physical vehicles, you add the kinds of retailers that may be going away, 39 percent of the entire square footage of the county will change. It's directly based on today's car culture. Maybe people have two cars per family, it's parked 95 percent of the time, it's completely inefficient and those are the conversations we're having with cities now, what are we going to do with that space? Let's not wait until self driving cars are here to figure it out, let's work on it together. But whatever it is, let's just get rid of traffic. Yes? - [Woman 3] You mention how you grow mostly organically and haven't spent much money on marketing so how did you initially create that community of users that were not a part of your business? - How did we initially create the community of people to grow our business without marketing? You know, step by step and I'll go through a couple of concrete things. So first of all our founder is Ehud Shabtai and this was started as a little project, he was an engineer that got I don't know, I think it was like a palm pilot, one of these systems and you could put a GPS on it. And the maps were updated and they were wrong. And he wanted to know where the cops were. So what he did was that he got the SDK and he got a bunch of his engineering friends to keep adding this information and within a few months, they had a thriving community of people who just wanted to have better maps.

And then every night he would merge all the data into one, re-upload it so that everyone else could download it and it was like, as close to real time as it could be in 2008, so the first ones were really the engineers that wanted to solve this problem. The second one was, remember I showed you that blank map where people were driving? That was not a mass audience, that was a way to get featured by Apple but there were people who loved it and we knew that it was going to be a small audience, it was going to be a very small number of people but they would use it all the time. And then when we had this like, PacMan phase, we had roads but we couldn't tell you speeds or anything, so we put cupcakes on the road and you got points and all of that, that was a way to slightly expand the market and open up who we were talking to because it was fun but again, we knew that wasn't going to be a mass market. So it was really step by step. What can we add that's going to be good for some group of people and then test it by saying, are they using it all the time. Are they engaging all the time, and then you know you're onto something. I really don't want billions of users who come and use us once or use us once a year or anything like that. That's not great product, I hope that helps. - [Man 3] What was the inflection point for you? - What was the inflection point for our business? There have been many because we're always inflecting, we're still inflecting, but I'll tell you the first one that stands out for me, actually I'll tell you two that stand out for me. One is we did not have good user engagement or retention.

People would come and they would leave very quickly, we didn't understand why, most of the people were sitting in Israel and I was driving around in the US crying when it would send me over a bridge that was a toll bridge and I had no money, and I'd be like how could you guys do this, fix it. So one inflection point was when we got everybody to come and this was difficult because we were venture funded, we were used to the boost that you get when you launch every 30 days, we stopped development for nearly six months, not stopped development stopped launching for nearly six months while we tackled these UI issues and that was version 3.0 and so you see your numbers doing this well you know you're about to raise money because you're not launching anything and then as soon as we launched version three, it did this. And so it was hard to make that decision but we knew it was the right thing to do. Second inflection point was does anybody know Carmeggdon? This ten-mile stretch of the 405 that was shut down in L.A. during I think it was during 2010. And Waze was just starting to get out there at the moment but it displaced 250 or 300,000 vehicles over the course of just one weekend. And we got a call from ABC who said, can you guys come be in our studio, there are so many detours, we think the only way to be able to keep track of this is to crowdsourcing. And we were, I mean we had hardly any users but we had more than anybody else. And it ended up that Noam, our CEO and I, we were testing, we figured out that you could plug in an Ipad into the green screen, we were actually traffic reporters at 4 am in the makeup chair every morning doing that and then we taught the traffic reporter, Alisha, how to use it and then on that Monday morning, she said I don't want to stop using this, I'm engaging with the drivers out there on the road, I can talk to them, and we said okay. They kept using it, we grew from something like, I don't want to give the specific numbers, we were 10 X in L.A.

over the course in a month. And then they asked, can we roll this out to all the other ABC TV stations and we said, well sure and now we're in about 280 TV and radio stations around the world and that's how they provide their traffic. - [Woman 4] So how are you managing, for example, like communities to say that this is not a good neighborhood, like watch out, you're about to be like, I'm from Brazil. - Yep. - [Woman 4] And I know San Paulo and Rio, do you ever have like some cases of people driving to favelas and have like crimes occurring in that areas? And from the way from I see so far, I don't see any GPS

on Google Maps or Waze doing anything to avoid, especially for tourists that are driving there. - The question is what do we do about high crime areas, for example in Brazil where if you are routed into a specific neighborhood you can be murdered. This is a very difficult topic for us. Actually, usually I'm being facetious I was not. We have a solution and it's been a very tricky one, why? For example in Rio, Rio has specific neighborhoods that are very dangerous and they are controlled by drug dealers but they get often lumped into this one term called (speaks Portuguese), which is really where poor people live. We will never do anything that's going to stop business from flowing into a poor neighborhood because it's a poor neighborhood.

So first of all, how do you define a dangerous neighborhood. This was our first very very difficult question and how do you do it fairly? How do you do it over time, because the gangs move. So this year, this neighborhood is very dangerous, but the next year it could be somewhere else. It could be months, it depends on what the police want to do. Getting that data is very difficult. Particularly in Brazil where not all of the government agencies want to admit there's a problem so can you get this crime data? It's not easy to get. In Rio, we worked with a third party, (speaks Portuguese). And we get crime data from them only on concentrations geographically of homicides, rapes, violent crimes and we actually tell you when you route there, this is a high crime area. We don't say danger, we have to be very concrete in our terminology, it's high crime. And so now, we will route you there because what if you're going home right? But we will tell you this is a high crime area and you can't get around it, it takes over your screen and it's based only though where (speaks Portuguese) has this great data.

So now we're looking how to scale this to San Paulo. We're having the same problem. Where do we get the information about where the high crime is. We're having this issue in Israel, multiple other places. It's a big deal and it's exactly the kind of topic that we can start to look at now but it requires, I hate to be one of those people who sounds like we can solve our problems through data but we really can. I mean right now, it's a matter of where are homicides occurring in high densities and then that should be an algorithm. We don't have the base yet. - [Man 5] Can you tell us more about the neighborhood start fund? - The neighborhood start fund, yes absolutely. So the neighborhood start fund, do you guys know Lupe Fiasco, the rapper? He's excellent, he was my classmate in the Henry Crown fellowship which is part of the Aspen institute. It's a leadership program that brings people together from very different walks of life so I was saying earlier that in my class, it's a class of 20, I had an officer who was a Navy Seal, I have Lupe, I have Shirven Pischevar at the VC, I had the VP of growth at Facebook, I had the CEO of Penske and at Heineken, actually I was nominated by Scott, another reason to bring Scott into this conversation, you should grab him after.

You have to do a project, a venture, in addition to just talking and reading philosophy. And so he and I decided together that one of the biggest problems, one of the complexities that we didn't know how to solve was wealth and equality in the US. And he has a very influential voice within the communities that are underserved and I have a fair bit of entrepreneurial knowledge and definitely a network of potential investors. So we decided to do this together. We launched it last year, we prototyped it in Brownsville, Brooklyn, now we're in nine neighborhoods that include South Central, L.A., Inglewood and Lawndale in Chicago, Overtown in Miami, East New York, Brooklyn, we're in nine neighborhoods, we have nine portfolio companies, it's tricky because these are idea stage companies and so we're starting all the way from the beginning. We're doing design thinking workshops and we're doing all kinds of things but Andres Horowitz has very graciously agreed to host my guys for a couple of days for an intense kind of accelerated experience but they can't travel. It's not like a Silicon Valley entrepreneur who comes here and I don't know how they afford it but they're here for several months without working or supporting a family. My guys are not in that situation so we don't have an in person accelerated, this is very distributed, so be able to bring them out together is very powerful. I love this work. I see some of the best ideas that I've seen in a long time, they are never tech ideas but they're all using technology to fuel some kind of major innovation that will matter in our lives.

And I was just in Gaza to see if there was maybe an opportunity for us to do something there. We're still exploring but that's a whole other difficult situation and we're considering after the elections and after again, looking at the fact that we're having such trouble communicating and that we're so fragmented in this country, we're thinking about rolling out in the American South later this year. So wherever there is a tremendous amount of creativity and really no access to the great skills, mentorship, and money that we have access to, we want to kind of go there. - [Man 6] How does Waze make money? - The question is how does Waze make money? Advertising. If you're a heavy user, you'll notice that there are these pins on the map that are kind of like billboards that will actually navigate you to a Dunkin Donuts or a Pizza Hut or a Whole Foods. You may notice that some of the voices we have like Morgan Freeman's and Arnold Schwarzenegger's are promoting films that they're starring in. And what else, when you're stopped at a light, you will get a take over so it's really it's not advertising, I call it kind of location guided advertising, where you're being woven into the fabric of your daily routine but it's going well. Uh, blue shirt? - [Man 7] How does Waze work with this age of not talking and texting while driving but it's user based while driving, how do you guys frame yourself to be legal? - How does Waze frame ourselves to be legal in an age of no texting and driving, great question. First of all, if you try to text in the Waze app, it will block you, it will if you're a passenger or driver, we rely on a little bit of honesty there but at least we try. The other thing is, by driving, just by driving, you're giving data, you don't actually have to do anything.

It's like a regular GPS in the fact that you're being voice guided and if you do want to report something, like say a police or a pothole or whatever, you just wave your hand over the proximity sensor and you say report traffic and it's done by voice. Yet

another thing though that will be improved by carpooling, Wazing together is the new Wazing. - [Woman 5] Have you ever faced a business decision which was conflicting with your culture? - Have we ever faced a business decision that's conflicting with our culture and how do we deal with it? We could have in many cases. So one of the ones that conflicted with our culture was exactly the one we discussed in Rio. How do you combine being fair with keeping people safe. And we had found the solution, it's a hard one but we found a solution to that. What else? In mapping, there is a tremendous amount of politics, what do you call a neighborhood on a map, what do you call a country on a map, there's disputes over territories so there are those that we have to give some cultural discussion to, I'm trying to think if there's been anything really big that combats our culture. I don't want to give the wrong impression that we're hippies, I skew hippy but really we're like, you know, so there's not a lot, no. We haven't felt compromised. Maybe considering acquisition.

- [Man 8] In a start-up a classic trade-off is expertise versus culture fit when hiring. - Yeah. - [Man 8] Have you ever been in a situation when you had to choose to hire somebody who scored high on expertise but low on culture fit? - Expertise versus culture in hiring. So I've never made the decision to hire on culture over expertise. So I don't know that. I have made a decision to hire for expertise and not culture fit and they're no longer with the company, it doesn't work for us. The problem is that we're hiring for both. And so I said we're 350 people now, we should be at 450 and we just can't find them. The bottleneck is the combination. There are particularly some roles that we want to scale and we need more people and the no asshole policy is a barrier.

It's just not no asshole, it's ego. There are so many people great at what they do that have a big ego and there's no room. There is no room. - [Man 9] Waze's UI is very unique, some people consider it-- - Messy. - [Man 9] Other people say it's childish. - Yeah. - [Man 9] What did you come up with as a decision to keep it as this way, why not UI that may be able to appeal to a mass of users? - The Waze UI, some people say it's childish, but it's very unique anyway, why did we not change it over the years to become something that is more mainstream? So in some ways we have. There haven't been cupcakes on our map for a little while. So we've definitely turned down the dial on play and up the dial on just get me where I need to go. And actually from a UI perspective, it's like what I was trying to say with the team dynamics.

Like I'll say, we have to change the onboarding flow because we're losing X person to here, if we do this, like I do that kind of science stuff, but everything about the UX look and feel is led by one guy who's been there from the beginning, who we all trust and he's, he just does it. And he has a great team around him doing it. We respect the team, we trust the team, and so it's been a fair amount of just intuition what feels right to him and we think he's great. We revel. - [Man 10] Will the eventual users of Waze be cars talking to each other about traffic as opposed to people? - Will the eventual users of Waze be cars talking to each other and not people? Like today, it's going to be a combination of humans and machines. Cars will talk to each other sure. Will Waze enable that kind of discussion, probably. What are those discussions like? Collecting more data so that you can have a richer human experience. So those things will play out in different ways than what we can see today. Already, think just about this whole Wazing together notion.

There's going to be a lot more carpool karaoke, whatever it is, it's going to be a different dynamic, now think about when a self driving car picks up the Wazers, they're not going to have to do the driving, what will they be doing, how do you shape that? The car is going to be collecting tons of information, we just announced that at congress that we're part of for it's SDL program in addition to being part of Android auto so the car's increasingly important. It doesn't replace the human and particularly not for us. It's community but it's always been humans and algorithms. And it will continue. Yes? - [Woman 7] How do you prioritize what to work on next? - How do we prioritize what to work on next? The hardest question we face and we face it every single day and we never agree and just when you think it's solved, it's not, so then we have to reopen the drawing board. The new one is that we have prioritization committee which sounds hilarious but it's really not. It's a member of each of the teams. So usually at Waze I'm wearing my growth hat, there's a certain number of users that I want using the application and I need to make sure that everything we build is building for an easier user experience that it's more, usually that's what I'm thinking about. Then you've got the engineering team who's really worried about technical debt. Like it's taking me twice as long now, if you would give me three months to fix this thing, I could build 10 of those things for you.

Then you have operations, then you have business development people and you have the product people have these great new features, so it's tricky and it requires conversation. Usually the p-zeroes, the most important things are easy. Something's broken, we want to invest in Carpool, usually those are pretty easy. When it gets into the p-ones and twos, there's a lot of debate and not a lot of consistency but I mean it's a great question because I don't have a great answer and we're thinking about it every day. It's the most important thing. - [Man 11] Thanks for the talk. I'm from South Africa and we call traffic lights robots. It occurs to me that, fundamentally part of the same system. And I was wondering how you guys work with signals to work with traffic lights? - So question, in South Africa they call traffic lights robots, which I think is really cool. How are we working with cities to incorporate a kind of whole fabric of this kind of information into one system.

So a lot of the cities I mentioned before are using our data to figure out where to put red lights, they're in the middle of trying to figure out what kind of infrastructure needs to be built, are they smart traffic lights, are they not, there's a lot of work

being done in the physical infrastructure which we have nothing to do with, where traffic lights will know exactly how many cars are where and be able to make the most efficient decisions. So we're working on that. But it's again, these case studies that are being made in one city and we have a ton of them that have been done on traffic lights are being shared with the other cities and often implemented through this program so we're learning a lot and the traffic light management is an interesting part of it. One of the things we did launch recently is we launched Waze Beacons as part of this program and so we have these beacons that go into long tunnels, tunnels you lose GPS and sometimes there are exits. So we put these beacons in a few tunnels to see if it was going work. And now we have in-tunnel navigation and we opened up so it could be used by any GPS application so we are thinking through where, what is this human machine interface of the city, or the human robot interface of the city. How can we do it cheaply, how's it going to scale, how do we get the data passing back and forth? It's like Lego. - [Instructor] That's it, we have to cut for time. Please join me in thanking Di-Ann. (audience applauds)