

URL: <https://stvp.stanford.edu/blog/videos/the-future-of-voice-entire-talk>

Backed by corporate investors that included Cisco, Google, Microsoft and Salesforce, Omar Tawakol founded Voicea in 2017, and served as the company's CEO until its acquisition by Cisco in September 2019. Voicea's core offering was EVA, an in-meeting AI assistant that transcribed meetings, generated highlights, and pushed relevant meeting content to productivity tools like Slack and Microsoft Teams. EVA is now being rolled into Cisco's Webex Assistant, and Tawakol is currently the VP and GM of the Cisco Contact Center. In this talk, he explores the strategies he employed as he scaled Voicea and landed it at Cisco. He also draws on his experience building BlueKai, a data exchange and data management platform company he founded in 2007 and sold to Oracle in 2014, and draws contrasts between the two very different B2B business models.



Transcript

- [Woman] Who you are defines how you build.. (audience applauding) - What I'm gonna do today, is I'm gonna walk you through my journey in building, first off, maybe a minority of the time I'll talk about building BlueKai the acquisition by Oracle and how that went.. Then I'll talk about building Voicea and the acquisition by Cisco, and then I'll talk about my five rules of thumb for building a business, and for building a team, and we'll have a conversation.. Here's the goal, don't wait till the end to ask questions, if you got questions ask 'em, if they fluster me, I'll tell you I'll answer them later.. So, don't worry, if I make it through this whole thing without a question, I would have failed, don't let me fail.. So, I will start now by talking about, kind of, what was really interesting about building BlueKai.. BlueKai taught me one rule of starting companies that I have.. I don't know if it's 100% true, we could have this debate, but my belief is that, if you're gonna start a B to B company, you need to be an expert in the area you're gonna disrupt.. And when I say expert, I mean to say, that if you go out to a handful of CEOs in that industry, they know you.. They know you by name..

Because when you're disrupting a B to B industry, the way decisions are made are quite complex, and they're unknown to you from the outside, everything seems simpler from the outside.. And if your competitor is started by a CEO who comes from indie industry, who has the Rolodex of the top CEOs, who can make decisions much faster, who can learn much faster, 'cause they don't make all the stupid mistakes outsiders do, they will beat you.. B to C companies are different because everybody's a consumer, and everybody can self-introspect and figure out things on their own, and you're usually creating these new categories that didn't exist and there is no expert who's more expert than you.. So that's my idea of B to B, I could be wrong, glad to debate it.. When I started BlueKai, I was in the adtech industry.. I knew a huge number of the buyers in the industry, the ad agencies, the publishers, I knew them well.. They knew me, we were at conferences together, on panels together, so on.. And one insight I had back then was that people, this was way back in 2007, and there was this huge growing digital ad business, where dollars were converting from the kind of TV offline world onto digital, very fast.. And they were all being placed according to contextual rules.. So if you're IBM you bought the Wall Street Journal's technology page to put an article, because the technology buyers read the technology section of the Wall Street Journal..

It was all place based.. And we had this idea that hey, instead of serving ads to a page, why don't we serve it to a person, based on the knowledge of the person.. That was insight number one.. Insight number two was, there's 300 ad networks, all these publishers, all competing to kill each other in this ad ecosystem.. I didn't believe I could build another ad company that would be better than Google, or like, at that time, Yahoo, and Facebook.. And I didn't want to build a company that would become number four.. Who the heck wants to do that? I wanted to be number one.. So I said, why don't I build a company that would supply the data for every ad company out there? And supply the data technology and never compete in the ecosystem with the ad players.. It was a really good decision.. 'Cause what we did, is we started out, got together a really good team, and we went up, within the first few months, we signed up eBay, Expedia, Cars.com, to supply us their entire real time data, live..

And then I built an auction marketplace, and think about these advertisers, at that time everybody was advertising demographically.. You go up to them and say, hey, I have real time data from eBay and Expedia, every search, every click, you can bid on it real time, the second they leave Expedia and eBay, you're gonna be able to show them an American Airlines ad to someone who just looked for a trip to Hawaii.. The ad buyers loved it, all the portals loved it, and we just started gaining liquidity very fast.. And if you remember, about 2007, 2008, 2009, the web started to become very sticky.. You'd see a product ad, and you'd see it, I really apologize for that.. So, that kind of change happened.. So that was, you know, we landed our

commerce.. Buyers we then landed our strategic anchor tenants who were buying the ads, we started to get a lot of liquidity, and then the whole programmatic ad space came in.. Does anybody here understand the ad ecosystem, or am I just speaking really weird? Not much, okay, cool.. Anyway, so, we started growing really quick, and then a really interesting thing happened..

Several years into building BlueKai, we were growing really fast, eBay gives me a call, and basically says, hey, we've decided we don't want our data in an open marketplace, we're just looking for tech to manage our own data, could you license the tech, we're gonna pull out.. It was a really sad day for me, I thought, because they were such a dominant supplier of data for us, and we were the only source for that data.. I'm like, oh my God, this is gonna kill my marketplace.. So I made a decision at that moment to never be over concentrated on demand or supply by more than 10%.. And that thinking allowed us to actually say, great, let's just license our technology for people where we do no buying or selling of data, we just give them all the tech they need to run a better data driven marketing.. That forced us to open up that model, we did, and that thing just started taking off.. Within a couple years a dominant number of the top 30 brands started selecting us, as the people like Microsoft, it was some of the key banks, Hewlett Packard, a good part of the top 30 companies in the U.S., selected us for this private, pay us license fees to manage their own data.. And once they're in there, they realized they needed more data, so they went and they bought it, so it built synergy to the other business and it took off.. We finally hit profitability in year six, and for some reason, I really can't tell you why, within a two week period, three CEO's of public companies booked time with me.. Cryptic, not explaining why, I show up at lunch and dinner, and it's they want, they want to acquire us..

It was just odd.. Talked to the board, they said, yeah, that sounds pretty good, if there's three at the same time, let's at least listen to them, and a few weeks later, they acquired us.. So Oracle became the winning bidder, they acquired us for 420 million, this was back in, beginning of 2014.. Interesting thing happened, a lot of times you go into a company, and you get acquired, and they ask you, hey, are you the golfing CEO, that you could just like, hang out and play golf, and rest and vest they call it, or what type are you? I'm like, no, no, no, I only have an on button, like if you want me to play golf, let me go, you want me to do something, let me do something.. So that was the very beginning of the process, I met Larry Ellison, the day after the deal closed, and he said, look, I want you to build up this business, into a really big business, and I want you to think beyond advertising, and I want you to tell me right now, if you could buy some companies, what would you buy? I'm like, you mean now? He said, yeah.. I said, can I have till next Monday? So I came back with a map, and we just started buying companies.. And we grew organically, and through acquisition, and we hit 500 million in revenue really fast.. So it was just a really fun journey.. It was just nice to be able to, like, bounce ideas off Larry Ellison and see his pocketbook, versus the pocketbook I had access to.. So that was the journey at Oracle, I stayed there two and a half years, continued to build the company..

By the time I left I had four CEOs reporting to me on my executive team.. That's kind of an interesting dynamic, to try to run a team with that many people who are used to kind of running their own show.. Some magical reason it worked, and we had fun, and we built it, and I left and one of the CEOs of the company that I acquired took over from there.. All right, now I'm gonna move over to Voicea.. I left Voicea, took a little bit of time, a few months, and I recruited a gentleman, who at the time was running applied AI at Facebook.. He reported to Yann LeCun, some people here know Yann LeCun, any yeses? Yeah, one of the, he won the Turing Award, so just a great person in deep learning.. He reported to him and built deep text, the system that understands all your posts and Facebook, and because of him I was able to recruit a bunch of other people, I pulled people, a guy who was running Moonshots for LinkedIn, I pulled people out of Microsoft, outta Apple, and that's expensive by the way.. And so, got all these ML engineers, we went off to build what I'm about to talk about.. And I realized I needed funding, and so, I was lucky to have Salesforce invest, actually right when I was starting the company, before we'd even launched, I got this email, from Mark Benioff, who I didn't know.. And I looked at, I'm like, oh this is a friend of mine, pretending to be him, it can't be real..

I looked at it, and it was real, and I met him, and so Salesforce invested, and then after that a whole bunch of other people, Google jumped in, Cisco jumped in, Microsoft jumped in.. So let me tell you what we did.. So, first I'll ask you a question, back in 2018, in the summer, there was a baby who said their first words, and it wasn't mom or dad, anyone wanna guess what it was? - [Audience] Alexa.. - Yeah Alexa, old news by now.. So, that's Joe Brady.. And there's this new generation of people who have an expectation that they can go and have a conversation with a device.. And this is just taking off, its just really interesting how it's gonna transform what you expect in dealing with devices.. And we had this thesis that, there was gonna be voice first moment.. Just like back in 2012, Zuckerberg had his mobile first moment, saying stop designing for the web, start first for the mobile, and think of the web second.. We thought that there was gonna be a moment in the enterprise, this is what's happening in the consumer space..

In the enterprise space, there will be a moment when you start designing interfaces for a voice conversation, and the expectation will be that the designers understand you, not you understand the interface.. So you have to get into natural language and make it easy for people to interact.. So that was really what we were building, we wanted to build the voice first world, for more a more productive work environment.. We looked at meetings first, because if you look at meetings, it's like 20 to 30% of your time, and if your an executive it's like 70% of your time.. And billions of dollars are spent keeping people in meetings, and you repeat the same things over and over, and what we wanted to do was just say, we're gonna make them productive and help you turn talk into action.. You can walk into a meeting, you can make a few notes, say, you know, this is the action we agreed on, this is the decision we agreed on, and it would be carried forward, shared with people, and no longer

be ephemeral.. So, I'll show it to you, what it looked like.. So I'll look into my system here, and we built an enterprise voice assistant called EVA.. EVA can basically read my calendar, and just show up in a meeting, if there's any sort of detail, if it's a dial-in, or if it's a Webex link, or Zoom link, or Teams Meeting, it'll just show up.. Announce itself, show itself on the screen as this little animated character that everybody keeps confusing with Disney's Eva, that was the biggest question on our customer support line, was did you get permission from Disney? Disney's isn't EVA, I think it's EVO, or something like that..

In any case, so it just appears and it gives you closed captioning, so it's transcribing in real time what you're saying, and it's trying to identify notes.. Let me show you what happens after a meeting.. So when a meeting's done, you get something that you can navigate, you see the concepts right away, that was discussed in the meeting.. You can go straight to it, - [Computer] Translation, and do you what a soldier seems to me is.. - So immediately takes lead to the point that anything was talked about, or the multiple points that was talked about.. It's in lock-step with video, so you can see what was on the screen at the time.. It's diarized, meaning identified who the speaker is, and it's tagged it by that speaker.. I'll digress for a second, this is one of the most interesting design problems.. Because in people's mind they speak like Martin Luther King, like they're giving speeches.. Actually most normal meeting speech is more like Anthony Scaramucci, you know who that is, yeah..

It totally sucks.. And when you see it written as a document, just as plain text, full screen, it looks terrible.. It looks unprofessional.. I've been on calls with like, really good execs who were using the tool, and I'm like, I couldn't have said that.. And you click to the audio, and yeah, they're repeating themselves, contradicting themselves, bad grammar, the whole thing.. So we had to figure out a way, how to show this, and we took a playbook from Facebook which is, they realized that when people were doing comments, if they were able to put bubbles on it, and make them think that this is casual, like text, people would do more of it, and they wouldn't overthink things.. And they got a lot more uses that way.. So that's why we kinda designed this UI that's, you know, easy to navigate, the text is like split up into speakers, and so on to make it easy.. But, let me show you a few other things.. So you can navigate it, you see the speaker, you get speaker insights..

This example, Amy and I at Cisco, had a conversation with The Wall Street Journal, this was a journalist.. It shows you speak time, so in this case it was Angus at the Journal, he spoke the most, and I can tell you if you're in PR and you're talking to a journalist, you want to get the journalist to talk, you don't want to do all the talking, that's what a rookie does.. And so what we did, is had a successful meeting with him, and then there's an edit, share it capability, we basically stepped back and said, if people go to five hours of meetings, they don't want to read five hours of transcripts.. So they're gonna want as more of a summary, and they're gonna want those key items extracted and pushed to their workflow.. So, here you can choose anything and basically push it to any of these areas, Trello, Salesforce, Teams, all that kind of stuff.. You can also set it up so it automatically does this for you.. So for example, if you're in a meeting and you say, okay EVA, the action item here is I should send a bottle of champagne to everybody in the audience and charge my competitor, thanks EVA.. What happens is that voice command gets captured, it creates an action item, it goes into my Trello Borg, and actually puts that action item in there.. Don't worry I'm not gonna send champagne to anybody.. And you get these automated notes..

You can also do things like translate to other languages, so you speak and the audience can see it.. Okay EVA, switch translation to Spanish, thanks EVA.. And what's gonna happen now is the subtitles will switch to Spanish, as you can see the last subtitle switched, when I stopped talking it'll move to another language.. There you go, so it's now in Spanish.. And these capabilities are now getting embedded inside of Webex, in the next version you'll have closed captioning, you press, and all of the sudden EVA will take notes.. And then we're gonna start embedding the workflow items so that as you take these action items, push it through.. We also have capability of doing automatically extracted action items.. Meaning you don't have to say, you don't have to invoke it's name, you can just say, the agenda here is, I'm gonna demo this, and then I'm gonna open to questions.. And because it knows that the word agenda's interesting, it's gonna capture that and put it off.. Or if I say, the next step here is for me to send you the contract, it'll do that, and so on..

And so we had to blend a lot of design on explicit interactions with the AI, and implicit interactions.. This is one of the most interesting design points.. Everybody wants to make it really easy to do the implicit stuff, just naturally, just figure out and do it for me.. Those are really hard.. One of the things we learned from Google, we actually talked to the team at Google about this, is when they first started, what they did is, they said, you're gonna put in a key word or two, in the search engine, the very beginning.. And I'm gonna show you 10 links, and we think one of these 10 links will be useful.. Look at the humility of the framing of the problem.. It wasn't you're gonna say natural language, and I'm gonna show you exactly the one link you wanted.. So, it's an explicit interaction where you tell it, this is what I want, and it answers to you.. Look at Siri, when they launched, they started out with this, kind of really big advertising, with some of the best actors and actresses, setting your expectation that you're gonna have full on conversation..

And how did you feel about that? It kinda sucked.. It didn't work as well, and it took time for them to get better.. Alexa came in with the opposite framing.. They were like, hey, here's this thing, just tell it turn on the lights or set a timer, play a song and it'll do it.. And then over time it started growing skills.. So, look at the difference.. So we tried to do the same thing, blend, hey, make it easy for people to explicitly say, okay, EVA, schedule the next meeting for Monday at 10 a.m., thanks EVA.. Very explicit, and kinda do some implicit things, where it's just doing things in the background.. And this is just one of the really interesting problems when you're designing an AI product, is dealing with the fact that people have unbounded expectations as consumers, you gotta bound it, and over deliver on that bounding, so that you don't disappoint them.. So anyways, great journey, then, let me go back to kind of the journey of building Voicea..

So, we started Voicea in 2017, assembled the team.. We launched in Alpha in May, staying free.. We did our funding right at the beginning as a seed round.. Then we did our Beta, launch in November, and because we started having some stats on our Beta launch that were really steep, and up, and to the right, we got our Series A, right after that.. That's when more strategics came in, I think Google, and Microsoft, Workday, and Cisco, all came in that round, the seed round it was just Salesforce.. And then what we did is, we recognized that a lot of people, the version we had would join your meetings automatically, and then give you a web interface, there was no mobile interaction, where you could just pull out your mobile phone and drop it on the table and talk, in the context of there being no meeting.. So we found this company, three people that were building a mobile app, and they were using kind of off the shelf speech technology, we had invested in really good, accurate, speech technology, and so it was a good compliment to us, so we acquired the company.. And then what we did, is, a few months later, we opened our payroll.. It was a really scary moment for me because, I had no idea if anyone was gonna pay for it.. Yeah, you're really gonna pay the extra dollars, you're already paying Zoom and Webex for the conference system, are they gonna pay an extra amount..

We started converting, right away.. Yes, question, you saved me by the way, thank you.. - [Woman] So, I was wondering, if you did anything, or what steps you took at the early stage, to prevent others from just copying your technology.. - Everybody was copying us, right at the early stage.. I'll repeat the question, did we do anything at the early stage to prevent people from copying us.. There were so many copy-cats, why was I comfortable with that? I had an amazing tech team, in a very hard problem space, and I knew that nailing the interaction with the customer was so damn hard.. It was, and I'll talk a little about that.. Here's an interesting story.. Before I started, Voicea, me and the CTO, and my co-founder, who runs product, were experimenting with this other idea, that I refused to take funding for.. We had built an assistant, that wasn't a voice assistant, it would read your calendar, and your email, and it learned very quickly, to do things like, hey, respond to this email, you forgot it, hey, this person responds in 30 minutes you take four days..

Don't double cancel this meeting, you've already canceled before, stuff like that, it was a really cool tool.. Why didn't I start that company? Because exactly what you're saying.. I realized that I would not have a data advantage.. That Google and Microsoft own, each, half of the world's email and calendar data, and I as a start-up would be competing to get more and more data, and all they had to do is buy crappy competitor number 72, and they could still beat me because they'd have more data.. So I didn't found that company.. This company I founded because I realized that 99.99% of all voice in the enterprises in the ether are not stored in a system of record, so nobody has a data advantage, literally nobody.. So I figured if we had that right algorithms, and we created the right user experience, we could get ahead of competitors, and we had a lot of competitors, they didn't scare me.. I was worried about, it's actually the same insight, behind the folks that started Intuit.. When they started Intuit they said, they're not competing with other creators of software for accounting, they're competing with a paper and pencil.. So I was competing with people who just took manual notes..

Not a bunch of start-ups who were trying to solve a hard problem and didn't necessarily have an advantage, so great question.. The other thing we discovered, to your question, was there is a new type of competitive advantage that I didn't think of before.. BlueKai had a classic network model, meaning the more data suppliers I had, the more data buyers wanted it, which created liquidity, which made it easier for me to close the next data buyer.. And that loop continued.. That was a classic network model.. This had a new type of network model.. I call it a compounding competitive advantage.. Because if you could build AI that is constantly training on this data, it's different, all the, everybody who does AI say's their model's concentrating.. The hard part is to automate the entire loop of data collection, to algorithm creation, to making sure that you haven't created more false positives, or changed the profile of how the system works, and automatically deploying it every hour, if you could do that, you're competing with other AI companies, who will ship new algorithms every quarter.. So if you can learn people's language model, so you walk into a meeting, and you say new acronym, the system doesn't know it, and an hour later it knows it, and updates the language model, it gets better and better, it's stickier for the consumer, and they stay with you, and you get more data..

So that kind of compounding competitive advantage is really interesting in this new breed of company.. All right, so, where were we? We got the mobile company, we hit the payroll, people started paying, our economics were terrible, we were advertising on Facebook to get people to get to know EVA and the conversion rates was just okay, and then, for people that tried the freemium, and then there was a conversion rate for people to try the, to actually upgrade to pay, after 30 days, and if you said no, we downgraded you to, not the full experience, but at least you kept it free.. And so we spent the next, you know, six to nine months, just optimizing every single aspect of that funnel.. Our economics started to get better, our conversion started to get better, and we started closing a few enterprises.. Then what happened is, it's 2019, and Cisco comes to us and says, hey, we wanna embed EVA in Webex, just as a partner deal.. We're like okay.. And they were like, we did an accuracy test, and you're really good, you're actually just a hair ahead of Google, how'd you get there? So we said, oh, this is how our system works.. Essentially it's a cheating system, let me just say it right off.. It's called an ensemble.. And the the ensemble worked is, we built a bunch of our own engines, that did speech, and then we plugged in a external engine, we tested IBM, Microsoft, Google, we selected Google..

And the ensemble would take the answers out of all these engines, in real time, and assemble a better answer than any one of them, because it was a deep learning layer, that was trained, how much it could trust them, it took the original audio, created its own model, and it beat everyone.. It was actually the performance envelope of the best of them, it took all the best attributes, and it better.. So yeah, we were the most accurate, a little bit more expensive, because we have to compute that

much more.. So Cisco came to us, great, and now that we know you're cheating, we're a little bit less impressed, so here's the challenge, 'cause we don't want to pay you and Google, right, 'cause your cost now absorbs their cost, and, we have the security and privacy concerns that, now the data's out there, we want to control it.. We want you to rip out Google, and still beat Google.. Talked to my CEO, and he was like, oh, oh.. We sat down for a quarter, and we just focused on that goal, and we did it, we actually created an engine that had no external parties, and it still beat Google's engine.. At which point they were incredibly impressed, 'cause we were a small team, instantly came up with an offer to acquire us.. So at that point I had a really hard decision, I'd taken around 20 million in funding, done a series A, so I didn't have a ton of dilution, small team 30 people, full-time.. And I had this really interesting insight, and that was, I was modeling myself after Slack and Zoom..

Now, Slack came into a world where there were already things like HipChat, and so they were optimizing on an existing model.. They didn't invent it, they optimized it, and they created a viral loop that was amazing, and a really fun and simple interface.. Zoom, same thing as a matter of fact Eric came from Webex.. So he just improved on a model that existed, except he took a consumerized approach, making it real easy to be viral, to kind of grow Zoom.. So both of those really good enterprise, B to B, consumerized, viral models, took existing understood concepts and optimized the funnel, the virality.. We were creating something fundamentally new that people didn't understand.. They didn't wake up in the morning, and understand what the heck is an enterprise assistant? Is it Alexa, is it a transcriber, I don't know.. And we'd expose 'em to them, like, oh yeah, this is kinda cool.. But, it was a little missionary, and it was early, and so, our economics were getting better, our growth was very fast, 700% growth.. All that looked good, but I didn't see the enterprises converting that into big deals..

So I said, okay, I'm gonna have to take, probably another 50 million in funding, in order to really prove out the conversion from individual user to enterprise.. And I honestly gave it a 50% chance of succeeding, meaning, I don't know, like, it's too early to tell.. So then I would have taken 70 million in funding, on the odds of flipping heads or tails.. I'm like, I don't know about that.. So when they came in with a good offer, we were like, okay, we'll plug it in to Webex, we'll be able to hit 300 million users and you know, I went from zero to 2 1/2 years, and it was a good acquisition with a good return from investors.. So anyway, I tell you that story because the first company, BlueKai we went all the way to profitability, went six years, they acquired us for 420 million.. This one was, 2 1/2 years, they acquired us for 125 million, but very low dilution on our part 'cause we only had a series A.. So sometimes you have to think through these things.. Someone might look at me and say, you should have rolled the die, you could have built a billion dollar company, you didn't need the money personally, so just take the risk.. And I kinda look at it as like, investors are like, they're people I know, personally..

If I'm gonna take your money, I have to believe in a better than 50% odd.. And so, that was my reasoning, was I right, I don't know, it doesn't matter, like, I'm having fun, we're really psyched, being part of Cisco, and are now part of a much bigger set of users, and continue to innovate.. Okay, I'm gonna switch, and now talk about my rules of building a business.. And so consider any time you want, to take this in any other direction, or if you have any questions about Voicea or the AI problem we were solving, go ahead and ask.. So, first, if you're gonna build a business, you have to start with a really big problem.. You can't start with an area that is too small, because there's no way that your original inception's gonna be exactly right and require no change.. So it might as well be a big problem space, so you give yourself a flexibility of moving and changing.. So that's just rule number one, solve interesting big problems.. And if it's not big enough, don't rush, step back and say, what's a bigger problem for me to solve? That's the first one, the second one, is really focus on an awesome team.. Go find people that are better than you, and have the humility to believe they're better than you..

This is the number one problem I find with execs, is the ego that prevents them that people are better than them.. So they will hire B players, so that they can stand tall.. Or they'll hire an A player and constrain the heck out of them, and not give 'em the freedom to execute.. So go hire world class people.. Give you an example.. When we built Voicea, like, I told you my co-founder came out of Facebook, this guy is like, really, really, well known.. He just really understands the problem he's solving.. My next co-founder had run product teams before, so product manager, he ran product management, he had 85 people reporting to him, before he came in.. Even though he had no one reporting to him here, he had the experience set.. The guy who ran sales, ran enterprise sales for Webex, and then built the sales team at BlueJeans, so in the conferencing space..

You know, so everyone we recruited was really, really good, so do that, and be humble about hiring just awesome people.. It seems obvious, but, it is one of the important things.. The next rule, Blue Oceans, anybody read Blue Oceans Strategies? Cool.. So Blue Ocean Strategies, are really simple.. An example of it is, Southwest Airlines came into an airline market, you would think is crowded, so the way long haul flights at the time were, lots of competitors, deregulation coming in, it was like an ocean with red blood, because the sharks are attacking everybody, and it's this really hard, competitive market, with a race to the bottom, just didn't look attractive.. Southwest comes in and has this insight and says, I'm not competing with airlines.. Anyone know who they thought they were competing with? Any takers? - [Man] Buses? - Yes, buses.. Southwest's competing buses not airlines.. They did short hauls, and they created a new market space.. And they grew, and they grew, and they grew..

And that's kinda what Blue Ocean Strategy is about, is finding a category where, you can kind of create a new form of consumption, and BlueKai certainly was that, because we didn't compete with ad players, we created data marketplaces that were new.. So I find those really interesting.. The polar bears, everybody looks at polar bears playing with nice, cute little

polar bears, think they're cute.. What's so interesting about polar bears is that they eat their children.. Yeah, ugly analogy, I know.. So, that's what it feels like.. When you're running a company, and you run into a business model that is so disruptive to you, you have to ask yourself, maybe I need to kill my own model before my competitor does.. So that's what happened with us, when we were at BlueKai, eBay called and said, hey, I wanna use your software, not your marketplace.. And then I saw another competitor have the same model, I'm like, they're gonna eat my lunch, if they give their software and it gets adopted to everybody, people will use my marketplace less, why don't I invest, and I do that? When we did that, the board was like, dude, that's expensive, like really, your starting another business inside the business? Within 12 months, I remember they came to the, our last board meeting with literally a crate of champagne to hand out to everybody, funny thing is, I don't drink, but they didn't know that.. And so, I looked happy..

And so, polar bears is all about cannibalizing your own market if you have to, and not getting over attached to the way you've done your business.. The next thing I would say about building a business is that, I think there's two models of finding product market fit.. Surfing and sculpting.. So, let me describe them and you can tell me what you favor.. So, sculpting is basically, the artist looks at a block of material, and sees in their minds eye, the beauty that they want to create, and then they go in there, and they creatively etch out what that masterpiece looks like.. So that's one way to think about a start-up.. A surfer doesn't create.. They don't create the waves.. They identify the waves and the artistry is in how they ride it, but they're not fooled into thinking that they're wave creators.. So those are two different models..

Any preference? What do you guys think a good start-up is? - [Man] Surfing.. (speaking faintly) - Yeah I guess I led the witness.. That's my opinion.. It doesn't have to be right.. When you think about the way Apple created kind of the iPod, and stuff like that.. It feels a little bit more like the sculpting model, but maybe not, because they saw out there a need, they saw that it was underserved, that there were poor interfaces.. So I don't have to be 100% right, but it's just my way of saying, do more to read the way the environment is moving, the way ecosystem is shifting, and don't drink your own Kool-Aid and thinking you're the generator of that trend, and the rest of the idiots out there just have to get on board.. Again, you know, arrogant entrepreneurs will somehow think that that's right.. Last thing, I already said this, was have a deep understanding of the buyer ecosystem.. So the reason we were able to do BlueKai and walk into the CEO of Expedia, and land, it sounds like a ridiculous deal back in 2007, to go to 'em and say, the CEO of Expedia was gonna approve a deal where he hands his entire real time data asset to a start-up..

Same think with eBay, I mean this sounds insane.. And the reason we were able to pull that off is, we knew how these folks thought, we gave them a pitch that was so, so, simple, we went up to the CEO of Expedia, Dara who now runs Uber.. Basically I went up to him and I said, you have a small advertising business, he said yeah, I said, do you believe in the next few years, you're gonna be the number one advertising company? He's like, no not really, number two, no, how 'bout this, why don't we make everybody in the ad ecosystem compete for travel dollars by bidding on your data, so every ad that gets surfed, gives you money? He's like, great, how much money would that make? We had a conversation, back and forth a little while, we closed the deal, and then we closed a whole bunch after 'em.. You can't do that if you're not from the ecosystem, understand their psychology, have the connections, and have the credibility, so that when they're asking, who's this dude asking for my data, kick him outta my office.. He does background checks, he knows who you are, his CFO already knows you.. So you have to be from the ecosystem, unless you're doing B to C, again my idea, anybody wanna challenge that, 'cause I don't have to be right.. - [Man] Yeah, I think you could not be from the ecosystem, if you and your partner have a team with you.. You said, your team must be better than you, and more experienced than you, and they are from the ecosystem, and they are building and paving the way for the title.. - 100% right, I agree with you.. It doesn't have to be you, your team has to have someone at the top level, it can't be buried in, but someone who's influencing your strategy, who's going to meet with other people in the ecosystem, who's recognized and understands them..

I agree, definitely doesn't have to be the CEO, it helps if it's the CEO, but if they're a prominent member of your team, that's awesome too.. Totally agree.. Cool, so those are my rules for building the business.. In terms of team building, I already covered the first one, which is be better than you.. Hire people that are better than you, and I mean this, meaning the technologist, should be a better technologist, the salesperson should be a better salesperson, the marketer should be a better marketer.. That's what you should be striving for.. And if you really think you're just better than them all, then, wow, and there are a lot of people like that.. Egos are plentiful in this world.. So, empower and hold people accountable.. This one seems obvious, where I think everybody falls apart here is in the tactics of it..

Everybody thinks they're whole teams accountable.. But then you go speak to the team and they don't have an agreed vision on what exactly are the small number of goals, three to five, this quarter, so that they understand everybody in the business, from the CEO to the very last person in that company, how they contribute to those goals.. So, I evolved this over time, but generally what I do before the beginning of every quarter, even in big business I still do this.. I start out with, before the quarterly plan is developed, I start out about a month in advance with my own vision of what I think needs to change, how the ecosystem's changing, what the goals should be.. I then start, week number one, go to my exec team and say, this is what I think, you have one week, go back to your teams, and you tell me what you think it should be.. So I come, week number two, I just do a read-out, they tell me, what the bottoms up vision is for what changes we need to make, what's important, what's not.. Week number three, we do all the planning, so that we end it with an offsite, and collectively decide what the goals are.. Week number four, we come up with a goals poster, that basically says, these are the four goals, or three, or five, with precise measurements, that we can use.. And then every week, that goal poster is put up in front of my executive team, and we

basically say, where are you here, what help do you need, and we keep the focus on that.. - [Man] Yeah, is there are reason that you don't get your teams vision before sharing the boards with them, do you think sharing yours first kinda buys who's there, they're thinking on whether they're-- (clearing throat drowns out speaker) - It definitely does..

The question was, is there a reason why that I don't hear them first, before I come up with mine.. It's a really good question.. I thought a lot about that, and you want to have, I tend to be someone who cares a lot about the vision, and finding that unifying vision through the company energizes everybody.. And if it doesn't come from the top and you have more of a democratic vision that's coming from everybody, it's easy to get off track.. And when I'm talking about vision, I'm talking about real fundamentals.. So by me spitting it out, I'm able to set some guardrails, so people don't feel like they're completely being rejected.. So if somebody comes in and says hey, I want us to do sock puppets.. It's a really hard conver, well it's an easy conversation you know, but you don't want to outright just be cutting out the ideas that are problematic.. So instead what you're doing, is you're saying, here are the bounds, and it's a wide bound, you're execution boundary may only be like this, but at least by setting it here, you're cutting out the rest of the area where, you're just pretty sure we don't need to go there.. You make a good point, that, that might not be the right answer..

But if you're doing this on a quarterly basis, with an execution mindset that you've got to actually get this stuff done, in those 90 days, you kinda want those bounds to be tight.. The conversations you want more open ended are a little bit longer term like that, horizon two, horizon three ideas, where, hey where do you wanna take this? Those can be completely out, and there you want kind of a little more inbound.. Now recognize that week two is all inbound.. So I don't really constrain people to say, oh, you said something I didn't say.. Most of the good stuff pushes the edges.. But you make, you made a good point.. So in any case, the last thing is, that you take your team, and now they take those goals, and they take it one level deeper, all the way down, and execute.. And then you stand up in front of the company, you give anyone permission to say, if I come, as a CEO with real excitement, about a new idea, that falls outside of these goals, you have permission to tell me, if you want me to execute that, tell me which of your goals you're gonna drop.. And that happens all the time.. I will come in and say, hey, customer says this, can we get it out, and my product guy, who knows me really well, is like, here it is, which one drops? And you have a lot more discipline in your execution, as opposed to, people get excited about what the CEO says, then they drop what they should be doing because they think the CEO liked it, and you get all this randomness..

So, empower your team to get stuff done.. Now, once you've agreed on these goals, you get the hell out of their way.. All your job is to make sure they have what they need to succeed.. And you don't script them on how they work, 'cause you've already agreed on what, let them figure out the how, and if they need to change in the next what, one quarter out.. Balanced team, this one's an area where people fall apart, where they'll get a very engineering mindset, but not someone who really understands how to take it and go to market, or someone with a very good go to market mindset, doesn't understand the product side.. You need that balance.. I've been amazed at how when you speak to a set of really good algorithm engineers, they will look down at the salespeople as if they're stupid.. I'm just gonna say it like that.. Literally they talk about them as if they're stupid.. And then you look at the salespeople, and they'll look at the engineers like, ah, they're such geeks, they don't understand business, they don't understand, like, you have, like all, and you don't want any one of those ways of thinking to dominate, you want all of it to come in a play field where everybody can bring their best, and you wanna foster some sort of respect between these people..

Like, you don't need your salesperson to code, and you don't need your coder to sell, so on and so forth.. You want that balance, and you want that balance also in thinking, like extroverts, introverts, male, female, culture, any diversity you can bring in the team, the team will be a better team.. Next one, culture matters.. But, there's no culture in my opinion, that's really the right culture.. Like, you gotta figure out the culture for you, and you need to figure it out early, and roll it out.. At Voicea it was really simple, we cared about GSD, get stuff done.. That was like a dominant thing, because in a start-up you need to move fast, come up with ideas, test it, and so on.. Second one we cared about was being data informed.. And so not the highest paid executive in the room makes the decision, the data informs it, data doesn't drive the decision, because sometimes you need intuition too.. So that was one..

We wanted team players.. I had learned early on, when I went to MIT, later came to Stanford, this mindset of the brilliant person is the one you want on your team, and that's all that matters.. And my first 10 years of my career, was that mindset, just wanted to surround myself with brilliant people, the problem is, sometimes brilliant people are assholes.. Not more than non-brilliant people, it's just, it's just some of them are, and they're very disruptive because they will prevent good work from the people around them.. So you want both, you want people who are really competent, but people who are what I call multipliers, that when you put them in a group, everyone around them works better.. And so that was one of our cultural things, I won't go through the rest of our culture, but that's what worked for my team.. If you're developing something, be thoughtful about the culture, because otherwise you'll have a random culture, which is just an amalgamation of the character of the founders.. Eh, that's not very thoughtful.. And you'll have to figure it out later, and you don't want to do that, so culture matters.. And the last one is over-communication of goals..

You heard me say it before, I put the same goal poster, every week, in front of everybody, people then at the end of the quarter get to look at me, and say how did we do against these? I can't BS them, right, I've attended, I can't tell you how big corporations I've seen, where general managers will get up and they'll show this thing about how well the business is doing, and you have no idea what they promised before.. So they're just cherry picking what metrics make them look good, huge

number of executives play this game.. Just show something up and to the right, why are we looking at Ju-Ju Beans going up, does that matter, what did you promise last week? So over communicating the goals gives you that sense of accountability.. All right.. Let me stop and ask, open for questions.. - [Woman] So you work on this really interesting AI technology, sounds like focus is really important for you, how do you stay so focused when there are so many-- (background noise drowns out speaker) - Yeah, the question is, how do you stay focused when you have this exciting AI technology that can apply in a lot of areas.. It's a really important question that you have to believe that the area you're focusing on has enough fruit, right, that has enough room, so you wanna do this more kind of depth first, once you've chosen the right area, go deep, deep, deep, to make sure you nail it, then you can nail the next adjacency.. The problem is, is if you're wrong about the area you're going deep in, you would have foregone the ability to explore a breadth first approach to find that one area that's gonna just nail it.. So you have to balance those two a little bit, we stayed our whole time, here, but we had a plan that mirrored our cash, that basically said, if we haven't nailed it by this time, and we're worried about cash, we'll start exploring, so we can make sure to give ourselves an opportunity to find another area.. But we got lucky, our area just had enough growth..

Good question.. Last question.. - [Man] (speaks faintly) - Accents? - Yeah.. - Really good question.. So speech models have two, the question was, how do we handle accents, the short version of it.. So the speech models have two aspects to them, the first one is an acoustic model, and the second one is a language model.. So the acoustic model will listen to your speech, and turn it into phonemes, at least in English, and then the language model takes phonemes, and a statistical language models, like how much words co-occur, and it basically says, it's likely this word.. And so, the acoustic model is where you need to be able to customize for accents, it's one of the huge problems in speech, and what we did is we would map individual voices into an N dimensional space, according to acoustic characteristics, and then what we'd do, is we'd find this speakers nearest set of people in that space, and bias the answer, the engines to that.. That's how you take care of essentially accents.. (audience applauding) (upbeat music)..