



Crescent Cove Conversations

featuring

Stephen Balaban
Co-Founder & CEO, Lambda



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What is it and why was it created?

Fundamentally, people do business with people. Our founder series is a place where we can show the person behind the business. It will tell the story of how and why the business was started. Our series will be personal and pointed. Our founders are impressive people. Sometimes, they are following a calling to right a wrong, fill a gap, be of greater service, but in all cases, they have a great story to tell.

We look forward to you listening to their stories and learning more about these entrepreneurs.

Crescent Cove Conversations: Stephen Balaban, Co-Founder & CEO, Lambda

In this series, Crescent Cove highlights insights and life lessons from the founders and leaders we've worked with over the years. Acknowledging there is no 'secret sauce' to success, these vignettes explore the human dimension of high-performing individuals and the companies they lead.

Stephen is the co-founder and CEO of [Lambda](#), which makes artificial intelligence infrastructure. Previously, he was the first hire at Perceptio, which was acquired by Apple. He studied Computer Science and Economics at the University of Michigan.

Stephen sat down with Crescent Cove to talk about getting banned from eBay as a high school student, Pascal's Mugging, the future of AI in national security, and what it means to keep the faith.

Crescent Cove (CC): Stephen, great to see you. Where are you calling in from today?

Stephen Balaban (SB): We're in San Francisco right now. It was a big week for tech.

CC: Yes, NVIDIA beat earnings. Is it safe to say the world isn't about to end?

SB: [Laughs] Yeah, there's something almost religious about how closely people were watching that.

CC: We're grateful to you for making time just the same. You are a co-founder and CEO of Lambda, makers of AI infrastructure, but our readers are also interested in the personal stories, so maybe we can start there. Can you tell us what was your childhood like?

SB: My family is all from Michigan. Dad's from Detroit, and my Mom was born in Missouri but grew up in Kalamazoo. I was born in Milwaukee, Wisconsin where I spent the first four years of my life until we moved to Sudbury, outside Boston.

Dad is a psychiatrist. Mom was a schoolteacher and a special education teacher, but when my twin brother and I were born, she became a fulltime mom.

In fifth grade we moved to Vermont, and I mostly grew up there. It was very rural. We lived in a small town and had lots of freedom. There was no police force in our town, just a constable. My brother and I were always playing outside –

paintball, running around in the woods. It was just a really nice childhood.

Interestingly, Dad's side of the family were entrepreneurs. His dad had started an office supply company with his brothers, and they were one of the larger ones in Detroit during the 1950s. My mom's side of the family is very musical but also into engineering. Her dad was an engineer. Software engineer is not the right word, but he worked with punch cards. I only found this out later, but he actually went to the Carnegie Institute of Technology. He very much had an engineer's mindset.

CC: Music, engineering, and entrepreneurship – that sounds like a powerful trifecta for creativity in the tech space. What impact did those family influences have on your choice of a career?

SB: Honestly, neither of my parents were super tech savvy growing up, but Dad researches things no end – he's just that kind of guy – and when we got our first PC in 1994 or there about he just endlessly researched the different options. My brother and I liked games, and Dad had heard the best were Myst, Starcraft, and Doom, so we played those, as well as Age of Empires and Diablo 2.

And then at some point – it must have been about 2003, when I was fourteen or so – I was like, "Well, I really want to install Linux on the family computer."

It seemed like a secret world: there were these people out there who didn't use Windows. To be one of them, you had to download Linux – burn it onto your CD. You had to use a CD burner. You wiped your



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whole hard drive or repartitioned it. I don't remember, but this must have been Fedora Core, the first release.

Anyway, once I got a taste of that, I was like “Wow, this is cool.” And when I first started learning the command line and could see the power of breaking out of the GUI -

CC: Hold on a sec – tell us what it means to “break out of the GUI.”

SB: [Laughs]: Breaking out of the GUI – okay, back in the day with DOS, the first computer had Windows 95. But before that, you typed doom.exe. It's a command line operating system, a terminal. Steve Jobs is credited with taking the Xerox Park GUI and bringing it to everyone via the Macintosh. Bill Gates copied that.

The GUI made it so that all the power of the command line was hidden. It's the ability to write code. If you needed to go into Windows and rename a thousand photos in your photo roll to something like “Taken March 7, 2007,” you'd have to right click, copy, right click, paste, and do it a thousand times. There was no way in the GUI to program a repetitive task like that. But in Linux, in the terminal, you could. It blew my mind.

And when I saw the power of breaking out of the GUI, I was like “Ok, I need to learn how to program.”

CC: Great – how did you pursue that?

SB: I was in eighth grade, maybe around 2002 or so, and I would mow lawns to make money. One of our neighbors was a pretty prominent D.C. lawyer named Brady Toensing. He asked me to make a website for their law firm. I had a little business, and I charged \$20 an hour. It was a good deal for him, and it was a lot of money for me as a little kid.

But really, it came from those games my brother Michael and I loved to play. We were into computer and video games, and I was really into World of Warcraft. I typed up everything I learned about it and called it “The Gold Farming Guide” and put it on eBay, of all places. I sold them as a PDF download. “Pay \$4.99 to get my guide.” I got the PayPal payment notification, pasted in my block of text, and attached the PDF. That was my first foray into real entrepreneurship.

And it was a great business. Infinite gross margin. That business did really well. I should ask my parents to pull their tax returns and check,

because I was under 18. I want to say we did something like \$58,000 worth of guides and \$38,000 worth of marketing expenses, for which I used Google AdWords.

CC: That's fascinating. World of Warcraft was your gateway to tech?

SB: Well, the *full story* is that I got banned from eBay because Blizzard's copyright enforcement bureau sent a takedown letter to eBay. We had said our guide was unofficial, but they maintained we couldn't use the words “World of Warcraft” in our title. Our account got banned from eBay, and in fact, I got our whole family banned.

But it forced me to make my own website, and that's when I started advertising on Google AdWords. eBay was free advertising, but for my website I had to drive people to it. I sold my World of Warcraft guide, and expanded to Runescape, Autobot miners, and others. It's actually mindblowing to say it out loud because I haven't thought about it for a while.

And my brother Michael did the same thing. I showed him how.

CC: What made you love World of Warcraft so much? Was it the story?

SB: What got us hooked on World of Warcraft wasn't the story – it was leveling up and grinding. For Diablo II, the trading in that game was really engaging. There was loot on the ground in this randomized casino-like environment, but there was something so interesting about the mechanism of trading it online. There would be known values; you could buy low and sell for a higher price. That's what was so engaging about online games, the trading and the auction house. With World of Warcraft, I just liked the grind.

CC: So you went from mowing lawns to selling a gaming guide online to starting your own website. Is that a natural progression?

SB: Really, it was all thanks to my uncle from my mom's side, Kevin – that's the side of the family that's into music and engineering. He was running a web host company called Blue Crescent Digital then, and he originally bought a personal domain for me and hosted it. Eventually, I asked, “Can you buy me these other ones for my guide?” He taught me how to FTP my html files up to the web server. If it wasn't for Kevin, I would never have been able to run it myself. He really helped me start the website.

CC: Did you keep the business going after you went to college?

SB: I was still running the game guide business in college, and I would do some work for my uncle as a subcontractor. Back then, my interest in computers was really tied to my enjoyment of video games. I wanted to make my own games, but I never really had a good mentor earlier on to say “This is how.” I didn’t really have anybody to get me out of “Windows land” and into Linux.

At one point with the guide business, I wanted to make an email form. I wanted it to say “Ask me a question” and have them submit a form. My uncle said, “That’ll require programming on the back end.” I said, “I guess I should really learn this stuff.”

So in college, I decided I was going to learn PHP and started teaching myself programming. By my junior year, when I transferred from University of Vermont to the University of Michigan, I changed my major to a self-designed major so I could take whatever classes that I wanted. I had taken Chinese classes every year – really, I had been studying Chinese since I was fifteen – and I wanted to take other classes, too, not just pure Electrical Engineering and Computer Science.

CC: When did the idea come to start another company – a tech company?

SB: I guess I had always wanted to start a business. When I initially started my first one, it was in the 2005-2007 time frame and the startup ecosystem at the time wasn’t as widely talked about outside of Silicon Valley. It wasn’t really until *The Social Network* came out and eventually the show *Silicon Valley* that more people knew about startups. I just knew I wanted to start a company.

Eventually, I learned how to program. At Michigan, I started Babo Labs LLC, as my second company, with my friend from the University of Vermont [Mek Karpeles](#) – Mek pronounced like the French word for “guy,” “dude,” or “bro.” Our product was Baybo, a digital publishing platform. Funnily enough, [Sahil Lavingia](#) launched [Gumroad](#) like two weeks before we were going to launch, and it was largely the same thing. The idea was you upload a PDF, put it behind a paywall, and it delivers it to the customer via a download. That’s literally what I had done with my guide business.

Mek and I were working on Baybo and applying to incubators, and long story short, we had been rejected by YC but we emailed [Paul Graham](#) again to ask for a second shot. He said, “Meet me at my house tomorrow,” and we were like, “We can be there the day after that because we’re flying in from Vermont.” But eventually we pitched Paul Graham at his house, where he basically told us “No,” but said that we should instead talk to these [Hyperink](#) guys. They were this digital publishing startup funded by Y Combinator and Andreessen Horowitz. So we met with their CEO Kevin Gao and decided to just join forces. And that’s how I landed in Silicon Valley.

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Funnily enough, both Sahil and Kevin are now investors in Lambda. And that gets us to the seed stage angel fund [1517](#), which is how I met Jun.

CC: So traditional people-to-people connections and a compelling idea is what led you to Jun and Crescent Cove?

SB: Yes. Mike Gibson and Danielle Strachman made the introduction, actually. They were cofounders of the [Thiel Fellowship](#) and had left to start 1517. I had been a mentor for the Thiel Fellowship, which is how we connected. Anyway, they were focused on people with non-traditional educational backgrounds, people who forged a path of their own, and they invested in Lambda.

I met Jun at a party, and I’ve actually still got the picture. I showed him a demo of our product – it was an image generation system called Dreamscope that would take a photo and turn it into a painting. He told me Crescent Cove worked mostly with more mature companies, but that we should keep in touch. Later, after our pivot to the hardware business and the cloud business of providing AI infrastructure, we had real revenue. We did \$3 million that first year, and after that Mike and Danielle said, “Now go and talk with Jun. You’re mature enough, you’re in his wheelhouse.”

Crescent Cove has been one of our biggest supporters. It’s Lambda’s second-largest investor. Jun has supported us this whole time, from credit to equity to mentorship. I just feel really strongly that he does a good job looking out for the company and for me personally. And I felt it back then, that “He’s going to be supportive of me as a founder.”

That continues now.

CC: So you’ve got strong mentors in Jun and from your network and time in Silicon Valley. What about books? Are there any that you would say have had an outsized influence on you?

SB: *My Life and Work*, by Henry Ford. No question. He's one of the greatest entrepreneurs in the history of business. Read his statements from 1915 and they are equally applicable to problems today. It's just amazing to see him describe a problem.

One lesson that stands out to me: the best way to raise money is from the shop. Eliminate waste and cut down on inventory. Fix your cash conversion cycle. That advice from more than a century ago couldn't be more applicable today. Another one of his quotes that I love goes like this:

"... success in manufacture is based solely upon an ability to serve that consumer to his liking. He may be served by quality or he may be served by price. He is best served by the highest quality at the lowest price, and any man who can give to the consumer the highest quality at the lowest price is bound to be a leader in business, whatever the kind of an article he makes. There is no getting away from this."

Really, I'm a big fan of [Lindy](#) business advice. Basically, the longer something has been around, the longer it's likely to continue being around.

CC: Maybe that's a good segue to talk about artificial intelligence. It's the hot topic pretty much everywhere, and especially in Washington, D.C. Lots of questions are being asked about how to leverage it, but also about whether and how to regulate it. What's something no one in the AI space is thinking about now, but *should* be?

SB: That's a really good question. There's an investor and author, George Gilder, who was a political speechwriter whose ideas on supply side economics gained traction in the Reagan Administration, and he was talking about a lot of this stuff way before anyone else, in terms of the importance of the semiconductor industry from a national security strategic perspective. Gilder's most famous book was *Wealth & Poverty*, but he has a lot of others, like *The Israel Test* and *Life after Google*.

Look, the entire supply chain is outside of the U.S. I think it went from something no one was talking about to something that most people now see as a real problem – Taiwan's monopoly on chip production, its proximity to China and the strategic risk involved of having all your eggs in one basket vis-a-vis TSMC. Thankfully, there was a lot of great

work done by real patriots to get things like the CHIPS Act over the line and get people in Congress and government really paying attention to this. I do feel like there's adequate discussion now, but there wasn't for a long time.

In terms of the next thing to come for AI, it's still the supply chain. It matters. No doubt, to describe a geopolitical crisis over Taiwan as "a major disruption" would do it a massive disservice because it would be a *disaster* for the global economy. It would interrupt everything.

Now, from the exports perspective, look, I think the U.S. needs to take a really hardline stance. Speaking as someone fluent in Mandarin, someone who spent a lot of time in China, who has a lot of appreciation for Chinese culture and cuisine – I can make great Chinese dishes, by the way – I think we need to take a really hardline stance on China. It's really clear AI will play a role in the current context and in the future one between the U.S. and China, and at the end of the day, you can't just sell everything to our adversaries. I'm glad to see what's been put up in terms of those export controls, and I'm glad to see it taken seriously.

In terms of AI regulations, we gotta be careful about not throwing a wet blanket on the most dynamic part of our economy just because there is a small clique of people conducting a Pascal's Mugging. If you're not familiar with the phrase, it's a take on Pascal's Wager which basically says that because there's some chance of an infinitely bad event happening, you need to do all these extreme regulations. You've got to be really skeptical of those types of arguments.

Here's a Pascal's Mugging equivalent: I find you on the street and say "Give me your wallet," and while you're considering it, I also tell you, "There's a 50% chance I'll beat you up to get it, but there's also a tiny, fractional chance that I am the devil himself who can hurt you eternally. So give me your wallet." And you shrug your shoulders and say, "Huh, small probability but what a terrible punishment," and you do it.

CC: So given all that, how do you see the future of AI? What's the impact on national security?

SB: As context lengths expand – the window of text you can paste into ChatGPT and not have it forget things and dump them out the back end – as you're able to have the neural network search through

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hundreds of millions of words, from an intelligence analysis perspective, it gets really powerful. It's going to become one of the most important tools we have. Reviewing meta data in emails and all kinds of intel sources. Queries like "Who are the most dangerous people in this metro region?" or "What is the most concerning conversation you've seen?"

On the kinetic side of things, the more important stuff, drone swarms and that type of autonomy, it's already part of it in the Ukraine conflict. It's what they're doing at [Anduril](#).

// You know the secret to the rain dance? Don't stop dancing until it starts raining. That is 100% true for entrepreneurship, too. //

Those are some things I look at, but it's going to be hard to say until the rubber meets the road. Necessity is the mother of ingenuity. We're not in full defense mobilization yet. We'll see what crazy stuff people come up with. Look how much progress [Boston Dynamics](#) has made, and that's just the beginning.

Something worth reading for anyone who's interested in these problems is *The Problem of Increasing Human Energy* by Nikola Tesla. He talks about society in general as being an energy kinetic equation. $\frac{1}{2} MV^2 = \frac{1}{2} MV \times V$ where M is your population and V² is your scientific level of advancement. He actually talks about future wars and asserts that eventually they'll be fought by tele-automatons, not people, and you won't have horrible waste in the economy. Basically, robots vs robots. Read it and it will blow your mind. Can't believe it was published in 1900. Great book.

CC: Great recommendation. And speaking of geniuses, what's your advice for young entrepreneurs or founders who are just starting out?

SB: [Laughs] You know the secret to the rain dance? Don't stop dancing until it starts raining. That is 100% true for entrepreneurship, too.

It's funny, but I could never recommend starting a business. There's a quote somewhere that goes, "We do these things not because they are easy, but because we thought they were going to be easy."

I would never want to start another company from scratch again – the pain, the trials and tribulations, they make it really hard to run a company. But I will say the ones who will be successful are the ones who would never be dissuaded by anything like what I just said.

One of my mentors, Robert Haddock, always tells me to "Keep the faith." To me, that means "Don't give up." You've got to keep chugging along. You can pivot. You can change direction. We went through so many pivots at Lambda, I can't even count them all. But it was always the same company. We kept the faith, and we kept pivoting. And the people who supported us, we did right by them.

And if you run out of money? First of all, don't! But if you do, fire everyone, and keep working it by yourself while you figure something else out. Make money on the side. Work as a consultant. You can walk on water for a little bit.

One last piece of advice: despite all the technological advances we're seeing, human nature stays the same – and business principles do, too.

CC: Last question, and it's our favorite: what is happiness?

SB: Happiness is my family and my friends – my loved ones. Since I became a father, my perspective has changed so much. Kids really change you, and I want to spend more time with them now. That's the personal side of happiness.

From a business perspective, I would say happiness is a happy customer – and a good cash conversion cycle. ■



Stephen Balaban

Co-Founder & CEO, Lambda

Stephen Balaban, is the co-founder and CEO of Lambda. Lambda provides GPU servers, workstations and cloud services for training neural networks. Lambda customers include Apple, Tencent, Intel, Microsoft, Harvard, Princeton, Stanford, and the U.S. Federal Government. Prior to Lambda, Stephen was the first engineering hire at Perceptio, a machine learning company acquired by Apple that created facial recognition networks that ran locally on mobile phone GPUs.



Crescent Cove is a technology-focused investment firm that is dedicated to supporting entrepreneurs and founders. Established in 2016, Crescent Cove leverages its global network of relationships and insight across markets, emerging industries, and technologies to build businesses and accelerate value creation across its portfolios.



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