MONIQUE STERNIN: We were taken to those villages in an old, rusty Russian car. We had to go over railroad tracks on bridges and arrive in the community, being checked by the police there.

REID HOFFMAN: That's Monique Sternin, adjunct professor at Tufts University, who's an expert on nutrition and foreign aid. She's recounting how she and her late husband, Jerry, traveled to remote farming villages in Vietnam in the early '90s. Their mission? To solve the plague of malnutrition in children. Vietnam's economy was in terrible shape, and children were paying the price.

STERNIN: Over 60% of the children were malnourished – and many of them severely malnourished. We were in a near-famine situation. So: What to do?

HOFFMAN: People trying to solve this problem were getting nowhere. Other relief agencies had failed over and over to make an impact.

STERNIN: When you have a high level of malnutrition, usually there's a relief agency that brings food and the children get better. But when the agency leaves, the children go back to being malnourished.

HOFFMAN: Monique and Jerry set out to find a sustainable solution. They also knew that as outsiders they didn't have all the answers. They partnered with the local Women's Union and enlisted their help in solving the mystery. Monique started with a specific series of questions.

STERNIN: "Do you have any children who are well-nourished?"

They looked at their list and they would say, "Yes, yes, we do have a few children who are well-nourished."

So we asked, "Well, could we go and find out what those people are doing?"

And they said, "Yes."

HOFFMAN: Monique and Jerry had to meet these families. Against insurmountable odds, these parents had kept their children properly nourished. How did they do it? She started looking around their home for clues.

STERNIN: I saw some crabs, little crabs crawling out of a straw basket. And I said, "Oh, are you collecting crabs?"

And they said yes.

And I said, "Do you feed your children these crabs?"

And they looked at each other, they were a bit ashamed.

HOFFMAN: In this community, eating crabs was considered a taboo.

STERNIN: And they said, "Yes, yes."

So I said, "Oh, but this is very good food for young children."

HOFFMAN: Monique stumbled onto the answer that she had been looking for: crab meat. Far more nutritious than the rice-heavy diets most farming families here lived on, it was a key to keeping kids nourished. She learned more too.

STERNIN: We looked at other things: how often they were feeding their children.

HOFFMAN: Because most of the kids in this community spent the day with their parents in the rice fields, they were only able to eat twice a day. But in this family, who had more mouths to feed, the kids stayed home and ate frequently.

STERNIN: With all the siblings looking after younger siblings, they were able to feed their children a few times a day.

HOFFMAN: This ingenious family had also mastered hygiene, which helped them fend off disease.

STERNIN: We noticed that they would wash their children's hands quite frequently. The child was playing with a dog or picking up some flip-flops from the ground, they would actually quickly wash their hands with water.

HOFFMAN: Crab meat, eating frequently, washing their hands – these were practical habits that could keep kids healthy in the face of poverty. And Monique had figured it out by going to the source. Now: How to spread the word? Once again, they went to the source. They worked with local groups to organize gatherings.

STERNIN: Families would bring their children to a neighbor's house to get an extra meal, and they would have to bring food — shrimp or crab that they could find easily in the rice patties.

HOFFMAN: These food sharing programs were not only where the kids got nourishment; it's where the parents learned these new ideas on how to keep their kids healthy.

STERNIN: The result was a success. Within a year, over 1,000 children had been rehabilitated. We were able to prove with very good data that it worked.

HOFFMAN: To date, these programs have reached 2.2 million people, saving 50,000 malnourished children. But what I want you to notice in Monique and Jerry's work is the way they arrived in Vietnam – not with answers, but questions. Instead of reinventing the wheel, they looked around for someone already driving a metaphorical car. The same approach works for organizations in every field.

I believe that when faced with an impossible challenge, you should scout for someone who's already solved it.

[THEME MUSIC]

HOFFMAN: I'm Reid Hoffman, co-founder of LinkedIn, partner at Greylock, and your host. And I believe that when faced with an impossible challenge, you should scout for someone who's already solved it.

When we talk about "invention," or its entrepreneurial cousin "innovation," we also need to talk about a peculiar challenge organizations face as they scale. You might be thinking: "Reid, I've listened to every episode and I already know what happens. As companies grow, they lose their pioneering spirit! Or they get consumed with production and lose sight of customer needs!"

All of these are true. But we're here to talk about a different plague, and a fearsome one at that: It's called "Not Invented Here Syndrome." And it can be a killer.

If you're a developer or came up in tech, you may already be well acquainted with "Not Invented Here." It means an extreme reluctance to adopt any solution that didn't come from in-house. That could be a programmer stubbornly rewriting their own code instead of incorporating a single line of someone else's. Or it could mean a multinational corporation, spending billions to develop a product that already exists, just to avoid working with an outside company. But both come down to the same thing: ego.

A little bit of ego is not a bad thing in a founder or a startup. If you didn't think you were the right person to solve a problem, you probably wouldn't have started a business. But when it comes to innovating at scale, one of the most fundamental lessons you will learn is: You can't do it all yourself. There's an antidote to "Not Invented Here Syndrome", one that coders coined long ago. It's called PFE, or "Proudly Found Elsewhere."

I wanted to talk to Megan Smith about all of this, because she's spent her career championing innovations from all corners. She spent more than a decade at Google, leading the acquisitions that defined the company. Under President Obama, she served as Chief Technology Officer of

the United States. Her approach is so compelling, I thought I'd scout the theory from Megan herself:

>**MEGAN SMITH:** One of the things that is a key insight for scale I would call "scout and scale." With seven billion people on the planet, someone around here probably has a solution to just about everything. So if you can find them and you can come up underneath them, they will lift.

HOFFMAN: Megan believes firmly that you can scout a solution to any problem. And you can see the seeds planted for this way back, when Megan was in Buffalo, New York.

>**SMITH:** In Buffalo, the river was on fire when I was a kid. We had so much going on with challenges in the environment and the steel industry was closing down. The Great Lakes really suffered and parts of them were dying.

HOFFMAN: During the economic downturn of the late 1970s, Megan watched as potential talent fled western New York State. But she also saw how innovation at the government level could change people's lives.

>**SMITH:** I was lucky because I went to a public magnet school that had no money budget-wise but it had extraordinary teachers. And they just pushed us hard on every subject, including STEM.
>
>Project science fair was mandatory for all children, and so it didn't have just some kids who got to do it. All the kids had to do it. And we learned that science and technology was part of the toolkit for solving problems in environment and social justice and other things.

HOFFMAN: The love of science stuck with Megan, and she went on to earn two engineering degrees from MIT. But she also kept her love of the science fair. The idea of inviting not just some kids, but all kids to participate – and then celebrating both the invention and the inventor.

Early in Megan's career, after working in Apple's Tokyo office, she joined a fabled startup called General Magic, a pioneer in early smartphones. Her next move would give her an early example of how growing enterprises scout and scale: first as COO, then CEO, of a new media company with a quintessentially '90s name: PlanetOut.

>**SMITH:** Tom Rielly, my genius friend, founded PlanetOut. PlanetOut was very much one of those sort of early new media companies. We were really focused on LGBTQ communities and allies who were on the internet at scale, but didn't have the same offerings of content and community.

HOFFMAN: PlanetOut started as a content creator, running a host of websites aimed at the growing LGBTQ community getting online for the first time. But as they grew, PlanetOut found that they were being scouted by bigger platforms that wanted to reach this community too.

> **SMITH:** The big companies, like AOL and Microsoft and Netscape and Yahoo!, were very busy building offerings and they wanted to serve LGBTQ customers, but it was hard to have that skillset with the other things they were doing. So we were often partners with all of them.

HOFFMAN: What Megan observed at PlanetOut was a growth model built on cooperation. The internet giants of the time worked with PlanetOut.

> **SMITH:** We ran our own websites and AOL sites, but we also ran the LGBTQ areas of those other – they were called portals at the time. So we were the LGBTQ or gay news of Yahoo!, or the partner of AOL.

HOFFMAN: And the bigger they grew, the more Megan could put to use the lesson of scouting outside your company to find who is innovating around you – and then working together.

As PlanetOut scaled up, they acquired media startups with similar missions and ultimately became the largest LGBTQ-related media company in the world. Megan stayed on until 2001. And then, in 2003, she joined Google.

At that time, Google was still mainly known as that search engine with the intriguingly blank front page. But Google had big plans to expand past search. As VP of new business development, Megan oversaw a number of the early acquisitions that drove its growth.

> **COMPUTER:** Megan also led early-stage partnerships, responding to ideas from Google's product & engineering teams. Google engineers have a lot of ideas.

> **SMITH:** We were doing all the early-stage deals. So any time any engineer across the company or product manager had ideas, whether it was something that became big like Gmail or Google Docs, we had to go find the first-of-a-kind partner.

> If you look at Google, it's probably half the products come from in-house incubation. Of course search, Gmail, others. But a whole bunch of them, the other half – YouTube and Android and others – come from welcoming extraordinary teams.

HOFFMAN: I asked Megan to share her playbook around those early acquisitions.

> **HOFFMAN:** Some of those early-stage deals led to massive new projects, right: Google Maps, Google Photo Sharing. What was the process by going from an early acquisition

or a thought that, "We should play in this area" and buying a small product, a team for talent, into the global scale that Google had?

SMITH: It's about seeing talent and enabling talent. Let's take Google Earth and Maps and those, there's really three acquisitions there: the Keyhole team that became Google Earth; the Where 2 Tech team, which was actually four people doing more of the basic map stuff; and then another group called ZipDash. They were, at the time, figuring out traffic. It's in the nexus of all that different talent coming together. As they came in, they led.

HOFFMAN: The baking of the three-tiered cake that became Maps and Earth is a perfect example of how you can scout for existing solutions and scale them. Google could have built the entire project in-house, from scratch. They could have spent time and money creating a product to compete with and eventually destroy Keyhole and Where 2 and ZipDash. But instead, Google invited them to join the team and continue scaling their individual ideas.

Now, at this point of the story you might be saying, "Wait. Did it really play out that way? Were the teams really invited in, or was it more like an ultimatum: 'Join me or die! And by the way, once you join, welcome to the machine.'"

Well, it can happen that way. You might even remember on this very show, we've seen tiny startups struggle in the claws of tech Goliaths. This is what Drew Houston of Dropbox said about partnering with big companies:

DREW HOUSTON: They would come in with this cavalcade of middle managers and they spin your wheels for a long time, but at the end of the day, these big companies aren't going to do you any favors.

And so the idea of a startup partnering with a big company, 99.9% percent of the time just ends up in a bunch of wasted effort – and it can kill the company. Then if you're really unfortunate, you actually get the deal and then you get spun around by this massive machine.

HOFFMAN: You may be nodding your head along with Drew, because this happens in Silicon Valley all the time. But Megan had a different approach. She wanted to help inventors keep inventing.

SMITH: I've done so many acquisitions, I know entrepreneurs are almost genetically, predisposition to do their thing. They are going to do that. So I think in this case, it's: find this extraordinary entrepreneurial person who just knows what they're doing. And so, in an acquisition, put them in charge and be like a venture capitalist, come up underneath them, give them what they need.

HOFFMAN: This model of coming up under entrepreneurs and allowing them to do their own thing? It's natural for investors, but antithetical to how most large companies work. Megan has a great metaphor for the change in thinking that's required.

> **SMITH:** John Warnock once showed to a friend of mine, about growth –
>
> **COMPUTER:** John Warnock, co-founder of Adobe.
>
> **SMITH:** This is a visual thing, so this is going to be hard. A lot of times when people think there's a company, they draw a triangle at the top of the page. Then imagine that the triangle grows down, that's how the company grows in a big, you know, pyramid let's call it, if it's 3D.
>
> Instead, he drew it at the bottom left corner, the pyramid. And then he lets it grow upwards to take over the whole page. And some of the team are going to come up with you, some of the team are going to go sideways with you.

HOFFMAN: This is a much more supportive model. This top-down growth model seems natural when you're part of the founding team. You think: "I'm the first engineer, and so I'm going to be the Head of Engineering for the company's whole history, and all of the teams will report in under me." And that's challenging to the entrepreneurial spirit. People don't found startups with the dream of going to work for the "massive machine" Drew Houston spoke of.

Megan believed that for new partnerships to thrive, Google needed to do more than find great talent with groundbreaking ideas. They needed to let their new acquisitions continue to do their thing, while the company lends support. The approach worked. There's data that bears Megan's theory out.

> **SMITH:** We did an analysis, looked at how many people were still at Google from the core GEO teams at the six-year mark. It was like a huge number of people, because they basically came in and built their vision inside of this larger home base.

HOFFMAN: Granting talent the autonomy to pursue their vision as relentlessly as when they were flying solo – that was Google's secret to scaling in a way that would last. Step one: specify a goal. Step two: scout for who's already solving it. Step three: invite them in and help those inventors keep inventing. Megan stayed at Google for over 10 years.

> **COMPUTER VOICE:** While at Google, Megan also led the non-profit Google.org and became VP of GoogleX.

HOFFMAN: Megan didn't know it, but at this time, she was the one being scouted. After the break, we'll follow Megan to the federal government as CTO of the United States.

[AD BREAK]

HOFFMAN: Before the break, we heard how Megan helped turn Google into an environment for small entrepreneurial teams to flourish.

> HOFFMAN: What was the first call like for, "Hey, we're considering a possible CTO for the United States. Let's talk." How did that come about?

> SMITH: So I was in Africa. We're working with incredibly entrepreneurial folks in Uganda, in Kenya, and I got this email. And it was email from USPTO. And I didn't know much about that. And it said: "Hey Megan, I've heard of you." It was from Todd Park. "I'd like to talk to you about something."

HOFFMAN: If the fact that there's a job called Chief Technology Officer hasn't been on your radar, you're not alone. It wasn't on Megan's either. The CTO position was created by the Obama Administration in 2009, and by the time Megan received that email in 2014, Todd Park was only the second person to have held the post.

> SMITH: It had never occurred to me to go work in government. It's not a practice that you see on tech resumes, generally.

HOFFMAN: But as Todd Park had started as a tech entrepreneur himself, he could speak to the challenges of this pivot. This wasn't about being another bureaucrat; this was about bringing the knowledge and scale of the tech world to a sector that could benefit from it.

> SMITH: The people who worked in government already are incredible. Service-oriented people, lawyers and scientists and operators and communicators and policy people, all these people, but they were missing their technical colleagues at the table.

> What I learned from President Obama when he went to collect all of us from the kind of commercial tech sector to say, "Here's some extra seats. Could you guys join the meetings?"

HOFFMAN: This push to include tech voices at the table aligns with the way Megan and her colleagues had used scout and scale at Google. When faced with a challenge, don't reinvent the wheel, invite the people who have already done it onto your team, and let them lead the way.

Megan became the US CTO in 2014. Her first challenge was a big one. Not impossible, perhaps, but one that would need her to scout far and wide for an answer:

> SMITH: Our agenda was how do we modernize this government?

HOFFMAN: Sure, no problem. Just modernize the government, that's all. That may sound like a comically tall order, but Megan has some historical context.

> **SMITH:** I often give the example, you know, the Pony Express, where they used to use the horses riding across the country to deliver the mail in three days? Well, President Lincoln had the Pony Express and then it got disrupted by the telegraph and he upgraded. So this is not a new problem of upgrading government, it's just that you have to have the willingness to really do it.

HOFFMAN: Megan knew that the administration did have the willingness to run a system upgrade on the federal government. Obama's Chief of Staff, Denis McDonough, created a Tech Policy Task Force with Megan as chair. It was like the leap from the Pony Express to the telegraph replayed.

> **SMITH:** Like the Pony Express is awesome. I love the freakin' Pony Express. It delivers the mail and it's a cool thing – but we don't need to use it anymore because we have this telegraph.

HOFFMAN: Shifting the federal government off its beloved ponies to a more high-tech answer would be easier said than done. For example...

> **SMITH:** I remember talking to Matt Mullenweg –

> **COMPUTER:** Matt Mullenweg, social media entrepreneur and web developer, known for developing the free and open-source web software WordPress.

> **SMITH**: I remember talking to Matt Mullenweg and he told me that he was really excited because finally the State Department was going to start using WordPress templates.

HOFFMAN: The open-source WordPress seemed a perfectly good, scouted solution to modernize the State Department's web operations. But their lack of experience left them open to being taken advantage of. Rather than a fast, easy implementation of WordPress, the government's procurement process dragged on. And in the end…

> **SMITH:** They ended up paying millions of dollars to use a free tool. Now someone in the State Department had they had this knowledge, would have just not... they would have figured out how to modernize that choice and not cost the American people so much money. But the person didn't know.

HOFFMAN: So, lesson learned. When adopting outside innovations, you need to pay just as much attention to the implementation process as you do the search process itself. And before we move on, let's take a moment to break down how to do that.

SMITH: One of my favorite things I call "wisdom of threads."

HOFFMAN: When Megan says "threads," she's talking about email threads. But the idea can apply to any type of communication.

> **SMITH:** You just kind of put a question out to people and if you actually have cc'd the right group of people or enough breadth, like diversity of opinions, you can say: "Hey, I was looking at this thing, what do we think about this?"
>
> And then you get one person's like "I love this because of blah, blah, blah."
>
> "Oh my god that's the most idiotic thing you ever thought..." And you know, back and forth. And it isn't that they're writing to me. It was that the other people were witnessing the conversation and responding to it, it was an open conversation of that particular group.
>
> And out of the wisdom of the thread, communicating with each other, you could see whether to do the thing pretty quickly. And it was a really fast scale technique somebody could use to quickly discern a decision.

HOFFMAN: Megan and I actually part ways on this theory – very slightly. Megan is strongly in favor of the breadth of opinions she mentioned.

> **SMITH:** My thesis is if you include everyone, you can fix nearly everything.

HOFFMAN: I tend to think that it's less about breadth and more about selective scope. I absolutely agree that diversity of opinions is critical. We tend to make our worst mistakes when our scope of advisors is too narrow, too insular, too much like ourselves. But as anyone who's been on a long email thread with a lot of people cc'd knows, a thread that's too broad can turn to utter cacophony.

In reality, everyone's threshold for number of people cc'd is a little different. The important thing is to make sure that every single person cc'd has a good reason to be on the thread.

As the head of the Tech Policy Task Force, Megan made sure the Wisdom of Threads was used in full effect at the Federal Government. A place that's not exactly known for its tech savvy – or what Megan calls it...

> **SMITH:** We call it "T.Q.," like tech I.Q.

HOFFMAN: One way they increased the government's T.Q. was to make sure more tech voices were included on project threads. Or as President Obama had told her:

SMITH: "Here's some extra seats. Could you guys join the meetings?"

HOFFMAN: The Task Force started filling in those extra seats. One project stood out to Megan.

SMITH: One of my favorite projects that happened was someone knew that California was rebidding the child welfare software and the current RFP they had was $500 million.

COMPUTER: RFP: Request for proposal.

SMITH: It was a 1,500-page RFP that would be delivered in five years by one proprietary vendor. Now we wouldn't do anything like that, ever, in technology. But faced with no other option that's what you might choose.

HOFFMAN: Remembering what happened with the State Department and Wordpress, they developed a faster, better, and cheaper open-source version of the software.

SMITH: It's not proprietary and it's $150 million, not $500 million.

HOFFMAN: Saving taxpayers $350 million while improving California's child welfare system is impressive. But the real achievement relates back to Megan's ethos of scout and scale: make sure you're not reinventing the wheel.

SMITH: What's really exciting is not only that happened for California but 14 other states were looking at what they're doing and what if all those other states could use 80 percent of that base and then adapt locally and we could move faster instead of making 50 versions of something?

HOFFMAN: This speaks directly to our theory: when faced with an impossible challenge, look for who's already solved it. They saved the government millions by adapting and replicating programs. One of these set the stage for the next phase of her career. It started with an observation.

SMITH: We have hundreds of thousands of jobs open in tech. Companies are starving everywhere, every industry. So how are we going to get people?

HOFFMAN: Enter TechHire, a program that organized and coordinated adult workplace training, with three-month coding bootcamps, online courses, apprenticeships and more, in cities across the country. TechHire didn't start from scratch. Instead, it assembled dozens of existing local programs all over the country.

SMITH: The program TechHire was finding people who were already doing coding bootcamps, mayors were paying attention, employers were hiring from it, and local tech communities were welcoming. That was happening in St. Louis, in New York, in

Delaware.

We were able to get not only those cities but to them to mentor another set, another set. So we went from five to 20 to 40 to 70 cities having this TechHire, which was not necessarily a government program. It was really a, "Y'all should meet each other and see how to share what's already working."

HOFFMAN: Megan left her post as Chief Technology Officer in 2017, and started scouting again. She co-founded shift7, an organization that connects talent with opportunity. One of their flagship projects is the Tech Jobs Tour:

COMPUTER: Tech Jobs Tour was founded by Leanne Pittsford, creator of Lesbians Who Tech.

HOFFMAN: It's a multi-city whirlwind event touching down in more than 25 American cities. The Tech Jobs Tour finds local job training programs to work with and scale. Only this time, their aim is specifically to go deeper into parts of the country the tech sector had been passing by.

SMITH: One of my favorites is the Code Crew team in Memphis. In Memphis, Tennessee, there's 45,000 young people out of school and out of work. And yet it's the same city that has FedEx and AutoZone and all these great companies starving for that talent and nobody was bridging.

And so this Code Crew team is doing for folks who are a little bit older, out of school, they're doing bootcamp training, coding bootcamps, tons of people coming through that. And then for younger folks, they actually took, you know those container ship boxes? They took those and they put a STEM bootcamp into them. And so when school's open, they're in the playground, come on out and do STEM and lots of fun. And then when school closes, they're still open.

HOFFMAN: Ever since her days of PlanetOut, Megan's understood that the quality of your scouting mission is determined by the diversity of your search – and the variety of answers you come back with. Megan means to look for answers everywhere.

SMITH: The United Nations Solution Summit is something we came up with.

COMPUTER: While she was U.S. CTO, Megan launched the Solutions Summit with the United Nations and several partners. It's now in its fifth year.

SMITH: The United Nations Solution Summit is something we came up with. We put a simple web form up and we just ask who in the world is already solving these goals. This year we got 1,400 submissions in three weeks from 141 countries.

One of my favorite ones is a team from Ghana. They say "we grow bikes." It's the Ghana Bamboo Bicycle Initiative. Their brand is called Eco Ride and they make these beautiful bicycles that are very inexpensive and they really are sequestering carbon as growing the bamboo and then making them into bikes, and more than half of the manufacturing team is women and every time they make 10 bikes, they give one away to a youth who's struggling to get to school…

… a team flying drones to plant a billion trees a year...; a team teaching law in prison in Uganda because thousands of people had gone to jail with no representation…; another chunk of our work, big chunk of our work is around media bias, using AI and data science machine learning tools to try to help see bias media better…

HOFFMAN: When faced with the impossible, we often try too hard to solve it ourselves, siloed off from the wealth of resources around us. Instead, I believe we should find ways to embrace the philosophy of scout and scale. Whatever the challenge, when faced with the impossible, look around. Find who's already doing the work, and see what you can do together.

I'm Reid Hoffman. Thank you for listening.