Kim Rachmeler: [00:00:00] Was something called the mega-deals, which was our agreements with the major search engines of the time to have placed and search results. Uh, this one big deal, and these were Ulta Vista, Yahoo and AOL to try to get us traffic

Dave Schappell: [00:00:25] Hi. I'm Dave Chappelle. And I'd like to welcome you to the invent, like an owner podcast, where I talk with the Amazonians who help build Amazon calm into one of the world's most valuable companies. This weekly podcast is for entrepreneurs, future business leaders and all students of history. And not to mention some people who might want to get a job at Amazon.

The goal of the podcast is to capture Amazon creation stories and create a historical archive. On that note, my guests are recalling history as best they can. It's possible. Some of the details are fuzzy or just plain wrong. If that happens, it isn't intentional. And I invite future guests or commenters on the website to help us get the facts as straight they can be now on with the show today, I'm excited to be talking with Kim rock Miller.

Worked at Amazon for more than 10 years from 1997 to 2007. And led teams, including retail systems, worldwide customer service and personalization among many others. And amongst early Amazonians, Kim epitomized ownership, getting things done and innovation all while emphasizing kindness. Which was necessary in some of those stressful, big meeting rooms along the way today, we're going to be talking in depth about the processes that Kim and her team put in place in the early days to increase the effectiveness repeatability, if that's a word and a quality of those early release cycles.

And I'm sure we'll bounce around some other topics too, for the listeners out there. You'll hear a lot about the precursors to modern software development approaches, things like continuous builds, for example, and what preceded them while it's slightly technical. I think even non-technical listeners will learn a lot about how large scale websites are developed, because this is not Amazon specific.

And we'll have Kim's take on that. So welcome Kim.

Kim Rachmeler: [00:02:10] Thank you, Dave. Glad to be here.

Dave Schappell: [00:02:12] I mentioned that you started in 1997. It was a year before me, but maybe give listeners some background of what you did or where you were before Amazon. And what attracted you to Amazon at the time? Was it a person? Was it, did you know about the company? You know, what is it that dislodged you from what you were doing before?

Kim Rachmeler: [00:02:31] Sure. So this was the very early days of a lot of things. It was 1997. I was in a tiny startup in the bay area. We were trying to do Java based apps for small businesses, phone tools, calendaring, scheduling, carpools, things like that.

And you know, we weren't exactly blowing it out of the water. So the corporate checking account was going to change. And we were looking for additional investments. We were looking for mergers acquisitions. We were looking for jobs as individuals, all the while trying to finish our product. And one of the folks who worked for me said, who had sent her resume to everybody she had ever known.

I said that you should send your resume to my old boss, Joel. And it turns out that not only had she worked for Joel, but my co-founder Scotty had also worked for Joel when they were apple. This was Joel Spiegel and he had left apple to work for Microsoft. But five months earlier had left Microsoft to join this little tiny startup.

And the only thing I knew about Amazon was that they sold books and had door desks. And that was it. So meanwhile, I had other stuff to do, like trying to save this, uh, this whole company, but I sent my resume up to Joel and turns out Microsoft offered to bias. Not really because they were interested in our product, but because they wanted a six pack of those years to dump into a project they had going, but they were going to invite us up.

And so, um, it'd be up there anyway, take an extra day. Talk to this guy. Joel. So had breakfast with Joel interviewed at Amazon the next day, following Wednesday. This was a Friday following Wednesday. I had an offer and 10 days later I was working at Amazon. Uh, and nobody was more surprised than I was.

Dave Schappell: [00:04:28] Did your coworker join you too, just to work with Joel?

Kim Rachmeler: [00:04:31] Yes, she did. She joined a slightly after I did and Joel and I both put the hard press on her. This was Erica Locke.

Dave Schappell: [00:04:39] Yeah, I know Erica. That's great. And the funny thing is I'm talking to Joel on Saturday, so this is almost a perfect segue. I had no idea for instance, that Joel was the person that recruited you in.

Do you remember the interview? Were there interview loops then? Or was it one or two people?

Kim Rachmeler: [00:04:52] Yes, absolutely. There were. And I remember. A fair amount of it. I had a breakfast meeting with Joel first, just to see if there was any interest. And he asked, you know, what three things do you need in order to launch something?

And I was like, well, you need to know what you're trying to build. It also features. Yeah. What else would I say? You need to know if there are any hard deadlines that are driving it, what else? And I was like, you know, the angel on my shoulder said, resources. You'd have to know if you have the people in them.

Dave Schappell: [00:05:26] I'm tingling right now, because this is what I wrote down on a post-it. Before this started. I don't know if you can see this, but you were the person that told me long time ago with the program. Manager's job is managing resources, time and scope. And if you want to move, you know, the deadline or you want, you either throw more resources at it, you give it more time or, you know, change the feature set.

It's just funny. It's one of those things I remembered from a long time ago and I jotted it down before we started.

Kim Rachmeler: [00:05:53] It's one of the magic triples and that if I had not pulled resources out of the depths of my mind, I've not been working at Amazon. So it turns out that basically what happened was my friends vouched for Joel, and they also vouched for me to Joel.

And so that was a big part of my getting the impetus to join. Because I was looking for somebody who would invest in me, who would help me grow as a leader. And Joel was somebody who had that reputation. And so I was willing to basically throw over everything for that shot. I didn't believe that Amazon was going to be world beating.

I had just crashed a startup. Okay. I use those stock options to pay for a bathroom that wasn't what was driving me. And in addition, Microsoft did offer it to buy the company. The hiring bonus was larger than usual because it was a company. And so I turned down four times as much cash to join Amazon as Microsoft. Because as a Joel.

Dave Schappell: [00:07:02] He's a convincing guy.

Kim Rachmeler: [00:07:05] Yes. Uh, and boy, that decision worked out because Joel really was everything that my friend said that he was.

Dave Schappell: [00:07:11] So you were reporting to Joel, I'm assuming like, was there a list of things a mile long? Was there like Kim, we need you in your first six months, these are our biggest problems. Like who were your coworkers?

Kim Rachmeler: [00:07:23] So Joel hired me as the group program manager for engineering. And a group program manager meant that I was going to be leading other technical program managers, but there weren't any, so that was basically me. So I was doing technical program management while hiring a team to do that as well, which was,

was really amusing because I had never been a TPM before and had never worked with one. So I was having to figure out, you know, pretty much on the fly, what that meant.

Dave Schappell: [00:07:56] What was Amazon needing at the time? Cause they probably had a bunch of engineers. You are a former engineer, right?

Kim Rachmeler: [00:08:02] Yes. Yes. I had been a software developer for more than a decade and I was doing project management, team management and my startup, but I had never, never worked with TPMS. And so Joel had an apple where they were very product focused and he had also worked with them at Microsoft, where they were more technically focused and he thought a blend of those would be great. That's why I was like, super, let's see if we can be useful in making the project teams successful.

Delivering project management delivers that was the motto. And so we went about trying to do that. It was a lot of feeling your way, trying to figure out what was going on and how to make it go on better. Um, the first week I was with the company, I was just wandering around the halls. I'm going here. Did they keep the adults?

You know, it was one of the oldest people there and I was 36. It was a bunch of very young folks. And so what we decided to do was to take the lightest touch possible because people were just going all out all the time and you really didn't want to do anything. That was too heavy handed. It wasn't going to go over well and it wasn't going to be useful. Uh, so I would tell people I want more methodology, but with a lower case, no, no. ISO 9,000.

Dave Schappell: [00:09:42] You were hired. Was it a Kim? We need to standardize some processes because things like where they looking three months out or 15 months out and saying, this is going to break badly. And so were you tasked with two or three big things to try to wrangle or, you know, how did you decide on those first few.

Kim Rachmeler: [00:10:00] The tasks with a couple of things? Yeah, and basically there was only one of me at the time, so it was only the things that were most critical to the company's success that got. Any of my attention. So the thing that I was trying to help shepherd in the summertime was something called the mega-deals, which was our agreements with the major search engines of the time to have placed and spirits results.

Uh, this was a big deal and these were AltaVista and Yahoo and AOL, and each one of these agreements had been handcrafted by the business development team. Try to get us traffic because it wasn't obvious how you would do that.

Dave Schappell: [00:10:48] It's a really awesome story too, because you and I both remember the BD team went out and essentially locked up the, you know, it's almost like the anchor tenant in the mall, you know, for the AOL AltaVista, excite Yahoo.

And they locked those all up in those first few years as a way to accumulate customers, if you will. And to your point, your team had to, or teams that you help work with. How to make all of those relationships work?

Kim Rachmeler: [00:11:11] Well, we were doing things that people have not done before. This was not something that even the search engines had done before. So we were figuring out how these things would get displayed, how the information be given back and forth. Then, you know, we were running, uh, experiments on. Was it doing anything for us? It was also a really fun conversation that I had with the head of business development. When I explained to him that because of the way the deals were structured, the potential to be orders, where we would owe money to all three of the search engines. That was fun. So.

Dave Schappell: [00:11:44] Is that because of cookie traffic from all three were recorded and we had to then print it priority.

Kim Rachmeler: [00:11:50] The basics are, we were paying the different search engines for different sayings.

Dave Schappell: [00:11:55] Got it.

Kim Rachmeler: [00:11:56] And you could sign up. To pay. For example, if somebody came to us from one search engine and it was the first time they had ever come to Amazon, we would be paying them for a new customer.

But if they can't, same customer came to us on the same order from another search engine, put another item into the cart. We would owe them for that. And if they came from another search engine within 30 minutes, And put another item in the cart. We would owe them for that.

Dave Schappell: [00:12:26] Well, listeners, this is like the precursor to what our affiliate programs. Right. And then figuring that out. Like, people don't think about that, but when you come to Amazon through a link and you put something in your cart, The person who sent that traffic or the website that sent that traffic gets compensated for everything you put in your cart, let's say. And did the work you did on those BD deals? Did that translate into the Amazon associates affiliate program or were those developed separately?

Kim Rachmeler: [00:12:54] Those were developed separately, but people from my team ended up. Getting assigned to the associates program again, to help them develop that more extensively.

Dave Schappell: [00:13:04] Are those names well known or.

Kim Rachmeler: [00:13:05] Uh, yeah, the TPM assigned to associates was calling Brian.

Dave Schappell: [00:13:09] Oh, well, yeah, I'll be talking to Kyle Collins, just wrote a book called working backwards. So, you know, he's had a long and distinguished career there. I didn't know that. That's another interesting one. I was wondering when you were telling me your background earlier, if you came from the same company that Collin and, uh, Charlie bell came from it, I thought you were going to tell me that too. So that's a different story.

Kim Rachmeler: [00:13:27] No, that was a, that was STG. And, uh, no, I was not part of that company. Right. But I was really glad we made the acquisition. That was a very much a, a, an acqui-hire.

Dave Schappell: [00:13:40] And so after the BD deals, you were talking before about some of the automation projects did one of these roll into the next, because you're working on the BD problem, and then you're seeing, oh, we have this other thing. That's starting to create issues or. Did you just own everything?

Kim Rachmeler: [00:13:57] The other thing that was going on that summer was something called V3, which was the third release of the website. We would numbering them back then, and that was going to be launched towards the end of September. And it was a lot of things were involved.

We were changing the navigation on the website. We were adding features like, oh, I dunno one click. We were changing the underlying architecture of the hardware and the software for launching and all of these things were going on simultaneously and just trying to get a handle on it and make sure that it would launch, it was in the process of trying to do these things.

While these other things were going on that we started implementing some simple changes to the software development process to try to rationalize what was going on. At the time I arrived in order to launch something to the world, basically anyone would compile the single executable. That was the website.

And put it out on the single server that we had, and that was how you locked something. You know, which wasn't exactly well controlled.

Dave Schappell: [00:15:19] So it's just working in production.

Kim Rachmeler: [00:15:23] Yeah. Uh, so not thrilled by that, not to mention that if you really needed to roll something out, it might take awhile to get a good bill together. Right. Because other people would have been checking things in and maybe they didn't compile immediately. And so that was a bit, yeah.

Dave Schappell: [00:15:41] Did this manifest in problems? Or did you and other people at the company like Joel and shell know that it was going to become a big problem, you know? Or was it, it was hard not to notice, right?

Kim Rachmeler: [00:15:54] Yeah. Everybody carried a pager. We would get bug reports from Jeff's mom when she would notice things had gone wrong. So yeah, it was, um, Highly visible that work could be improved now, also. Okay. Yeah. That middle of 97, there was maybe 35 people in engineering. Okay. This is a very small group of people doing everything, right.

Everything from the backend and the warehouse management systems and the credit card management, customer service and customer service tools, everything.

Dave Schappell: [00:16:34] Catalog inventory, like just massive.

Kim Rachmeler: [00:16:37] All of it. Okay. So there wasn't a lot of spare cycles. And in addition, prior to my joining, and this is. Not something I have personal experience with, but basically a website was growing 30% a month, every month for the first 18 months the company was in business. And so everybody was scrambling just to keep the lights on.

Dave Schappell: [00:17:02] Can you explain and just break that down into, obviously it's exponential growth, but what are some examples for people that aren't engineers, the types of problems? That, that leads to, you know, cause obviously Facebook had to deal with it in a different era and other companies, lots of companies have to.

Right. But like, especially back then, what types of problems did 30% month over month growth basically forever. What kind of problems did that create for even world-class engineers to deal with?

Kim Rachmeler: [00:17:32] Well, when you don't have the capacity to deal with the things you have to do. Things slow down or people can't access the website.

So it's like having a, an actual store and somebody coming to them, the door and the door is locked and they're beating on the door saying, let me in. I want to buy things. And inside you're running around juggling exits. Go away. I can't deal with you right now.

Dave Schappell: [00:18:01] So it could be both not enough hardware or inefficient software running on that hardware that needs to be able to queue up orders faster or because the bottleneck could be anywhere, right. It could be in credit card processing. It could be in cap catalog speed. It could be anything.

Kim Rachmeler: [00:18:17] Yeah. There could be a lot of things. And as you solve one of those issues, it flows downstream to the next place that is not able to deal with that load. And prior to my joining, what they had done was purchased two very large deck machines and they had one that was serving the website.

And one that was dealing with the database. Again, the website was a single executable. The database was a single database and these, the database, for example, ran everything. It ran the website, it ran the warehouses and customer service. It ran financial reporting, it ran everything. And what they did was they bought one of these machines where you could slot in.

Additional pieces of hardware to give it more capacity. And so as we would start running too hot, we would buy in another, another back plane and shove it into the machine. But that was, we were running out of slots because, uh, the machine just wouldn't expand indefinitely. And so one of the things that we were doing for this V3 release was changing from having a single front end server to having multiple front end servers.

And this was a big, big deal because once you had multiple servers, It was going to open up a lot of things. Number one, you could take a server down in order to do it and maintenance or other kinds of grades yeah. Upgrades to it. And the entire website would not go down worldwide. That would be a good thing.

In addition, if you could have multiple machines on the front end, you could add another one and get incrementally more capacity. That's a very good thing. So this major architectural change was going on at the same time that we were going to be doing changes to the website and the way worked that customers would see.

Dave Schappell: [00:20:33] Was also part of it. The advantage of having multiple front end servers that you could roll out new VR. Is this the first instance of rolling out new versions of the website by just taking a few down? Updating them and then putting them live and then taking the other ones down and updating those, you know what I mean? So that you could push out changes without disrupting, because I remember in the early days we used to basically we're closed for maintenance sort of a page while we made changes, which is still pretty common with smaller websites.

Kim Rachmeler: [00:21:04] Yeah. So that's the beginnings of being able to do that. One of the things that we implemented as part of this change to multiple servers, Was having

something we called master, which was the ability to push a new build out to a master machine that internal people would have access to, but external people would not.

And so we would be able to what was called baking on master, where we would beat on it and place orders internally and see whether it was doing what we thought it should do prior to putting it out, such that the outside world.

Dave Schappell: [00:21:43] You mentioned in V3 one click, and you mentioned a lot of this backend items, but what was the impetus of the change in navigation and why was that such a big deal? Not just for consumers or, you know, shopping customers, but why was it a big deal for the website itself and maybe like, where did it come from? Like what led to it?

Kim Rachmeler: [00:22:01] So I wasn't as involved with the change to navigation, but basically it was the beginnings of. Starting to move to a tabbed and navigation system.

It wasn't tabs, but it was the beginning of thinking about the top nav bar as being significant to how customers would wander around the site. There was the ability to highlight different activities, different kinds of things that would be coming down the road. So for instance, the release that will be coming up the following November. Was going to include gift certificate and we would be able to highlight that offering in the navigation bar.

Dave Schappell: [00:22:47] Yeah, it was a big deal. I mean, not just the, like I remember I joined in 98 and worked on the music and the video store. So we were building on the work that your teams did and I was totally oblivious to it, but I do also remember things like the gift certificates were huge, right.

Last minute purchases. And then that 98 Christmas, I think we added our first, like, Gift store, you know, where we were going out and buying digital cameras. And, you know, I don't even know what, what was current at that time, but I, that basically all built on that. And what was the big change to the website or the code that was needed to accommodate different category?

Kim Rachmeler: [00:23:22] Okay. So a different categories comes later, so we are skipping ahead. Now music launched in may.

Dave Schappell: [00:23:32] I'm sorry, I didn't actually even mean that. I was thinking of navigation as categories. I think when you're saying, but the change in the navigation, it wasn't necessarily category specific.

Kim Rachmeler: [00:23:41] No, it wasn't gory specific at that point. Again, this is very, very long time ago and this is. 97. And the only thing we were selling was books. So

nobody was really thinking, well, I don't say nobody because at least one person in the company was thinking four categories in that. But we were basically thinking about how to sell books better and faster and how to survive with respect to again, how to survive.

We were very, very seasonal. We were focused on. Christmas, even though we weren't seasonal at the time because we were growing too fast, right? Between Christmas 96 and Christmas 97, our traffic slash revenue was I believe eight X. So. You had to be prepared for extremes.

Dave Schappell: [00:24:35] And really the extremes there. It's basically the same thing we were talking about earlier. It's every single system, the bottleneck can appear somewhere. So the catalog team, the search team, the, every team had to basically simulate what happens if we're 10 X or 15 X, and we'll still keep working and trade off over investment versus, you know, capabilities.

Kim Rachmeler: [00:24:56] And this was something that you had to. Project as the engineering team where resources were going to be needed because everybody was running very, very lean. And you didn't know really ahead of time, whether it was going to be supply chain or catalog or site navigation or search, or what have you, where the bottleneck was. And so we would move people around.

As we saw need for scaling or for launch or what happened. And that was something that led to the concept of fungible engineers. The idea that we would be working in the same language across all of the software, and we'll be using the same operating systems so that people could do that more easily and could help out and could contribute in multiple teams. This has, as you can imagine, uh, good and bad effects.

Dave Schappell: [00:26:00] When you got there. Would you say that again? It was 1997. So was it a state-of-the-art for current entrepreneurs? Would you say it was closer to minimum viable product? You know, they'll hold MVP thing up, get something out there, or is it really sort of on the other end of the spectrum given. 1997, like quality of the team, like where was it on that spectrum? Was it pretty complex at that time? Even.

Kim Rachmeler: [00:26:23] It was not state of the art I had come from Silicon graphics, for example, I've worked there and frankly, software development and engineering challenges were more challenging from an engineering perspective.

Then what was happening at Amazon? Amazon is basically, you know, a database and website. So as far as engineering goes, there were some interesting challenges with respect to, again, keeping up the scale. But you know, that wasn't really. That compelling for engineers at the time.

Dave Schappell: [00:26:58] I look at it and say, well, that's just that simple problem there. I want to work on this big mathematically challenging algorithm over here. And so you had to convince them partially that, Hey, you're going to be part of creating something. Yeah, incredible.

Kim Rachmeler: [00:27:10] Yeah. We had no problem. Recruiting MBAs. We had some problems recruiting to get you.

Dave Schappell: [00:27:16] Right. I'm going to come right back to that. So before we talk to me about some of the other things your teams put in place, like nightly builds, Code reviews. Cause that's all basically impacts all of these things we're talking about. Can you talk about some of the biggest changes that you and your team or the teams? No one wants to take credit for any of these things like, but the things that you worked on with the team to improve the productivity, I'd say of the engineering organization, because at that point let's face, it mostly was.

Engineered driven, like there's plenty of BD and plenty of product management, everything else, but it was very much an engineering problem, you know, for a long time, correct?

Kim Rachmeler: [00:27:51] Yes. So we tried to do things that would not be burdensome to people, but that would have impact in trying to make things work better is the best way to describe it. And so, for example, uh, code reviews, we were seeing things that were causing bugs. That that were too obvious that if anybody had taken another look at it, it would have jumped out at them that it was an issue. And so we implemented code reviews. And what it said was when you do a check-in, you need to include the name of the person who looked at it.

Somebody besides yourself, who took a look at this code, Include that name in the check-in notes. That's it?

Dave Schappell: [00:28:38] So they were then responsible as well.

Kim Rachmeler: [00:28:42] Exactly. We didn't say you had to check off these things. You had to look for these kinds of issues. No formal mechanism, nothing just has anyone else looked at this code besides you.

Dave Schappell: [00:28:58] Where code reviews a new thing at that point? Or were they common? Industry-wide and they just weren't being done at Amazon because you guys were running so fast.

Kim Rachmeler: [00:29:06] Yeah. It's not like we invented.

Dave Schappell: [00:29:08] Right.

Kim Rachmeler: [00:29:09] Okay. But there was, there were people who recommended certain, I'll say methodologies again, in terms of what made it good or bad overview.

And we were like, no, we are not going to go there. We are not going to be so prescriptive. But we are going to say, you know, another set of eyes who would be useful do that. And the way that got implemented was Joel, who was the VP of engineering at the time said thou shalt. And I started looking at every code check-in to see whether the name was there.

And if the name wasn't there, I got to send a note saying where's the net. And so we're time that. Starting to become ingrained in the culture. That's how that happened.

Dave Schappell: [00:29:57] One side question. Why did you decide to switch from being an engineer to being a TPM? I wanted to ask that for a long time, because before I did the little research getting ready for today, I actually didn't know you were an engineer before. So had you already made that transition after you left HP and SGI to the startup that you were at, or was Amazon really a brand new career for you?

Kim Rachmeler: [00:30:17] I had wanted to go into management for a long time, but. I couldn't find anybody who was willing to give me that opportunity until I left SGI and became a team manager for our little startup.

Basically I need to define somebody whose need was greater than their fear. And I found that, and it was only because I had taken the risk of joining a startup. And because people that he knew Vacherie the Joel was interested in, in taking me off. So it was something that I felt was a better fit for my particular skillset than continuing to be an individual contributor.

Dave Schappell: [00:31:01] I'm kind of emotional here because like, I was an accountant before Amazon hire me, you know, like it was partially that helped that transition, but it's the same thing. It's like people like Joel and Andy who took a flyer, you know, based on having some shared connections and all that sort of thing, but it was a big transition that I probably couldn't have made going to a Microsoft, but a young upstart company was willing to take the risk a little bit more.

And so in any case, it's really interesting to hear that. Cause I never knew any of that before.

Kim Rachmeler: [00:31:31] Yeah, it was of course helpful that I was a pretty decent engineer because that helped me make better decisions. It helped me communicate

better with the engineering teams. It helped me in a lot of ways, but it seems pretty clear that my destiny in life was not to be software.

Dave Schappell: [00:31:50] One of the other things you mentioned was nightly builds was a new thing. Can you explain again, got to give listeners the context of 1997 versus now, like why that was a big deal and sort of how that's evolved over the years and what your team's role was in it.

Kim Rachmeler: [00:32:04] Let's talk a little bit about what a software application is. So a software application is something where you take a bunch of code and you compile it into an executable. And the executable is what you hand over to the operating system to say, Hey, why don't you run this? And it will do things like communicate with the user. So at Amazon, the thing that we were building was a website.

And it was a single executable that would perform all the functions that you saw on the website from presenting a page to doing a search, to taking your credit card, all that. And it was happening in a single executable. So all of the code that any of our developers were writing that had anything to do with the website.

All got compiled into this one executable. So this is housings and thousands and thousands of lines of code in different files, all of which have to come together and get organized into a single executable. And what that meant was if somebody was working on a piece of code. And they would do a little work on it and save it away.

But maybe it wasn't quite ready for prime time. It might not compile, there might be syntax errors in it. And what that meant is that if anyone, anywhere in the organization had done that, the overall executable couldn't be built. And this was a problem because you never want to be in a situation where a failure or a mistake by an individual stops the entire train.

And so what we were doing was trying to build the executable every night so that we would find these kinds of things before we absolutely needed to do something that was critical.

Dave Schappell: [00:34:24] Just a constantly rolling of checking testing, releasing on the nightly build.

Kim Rachmeler: [00:34:30] We didn't get to that point of like a daily release for a long time, but a nightly build would allow you to spot these kinds of pedestrian problems. Well in advance and the discipline of having a build available at all times. Was useful because it meant that people were paying more attention. To that kind of capability.

Dave Schappell: [00:34:58] That was it. Then manifest itself in master and then QA would pound on master and everybody would pound on me.

Kim Rachmeler: [00:35:04] It would enable a lot of things, I guess, the best way to put it, but it's certainly not the be all end. All which you're trying to do is you're trying to think about ways. To make it be possible to move fast. So once you have this concept of a nightly bill, then you can have a concept of a continuous wall, and then you can notice maybe it shouldn't be a single executed. Maybe we should have all that apart, such that if there's a problem with search, it doesn't mean that other forms of navigation are broken as well. And so you start calling and teasing out these elements. It used to be all.

Dave Schappell: [00:35:49] What's that referred to now. Cause now there isn't a single executable. What would people refer to or how would they refer to that? Or think about that now for engineers coming out and joining companies.

Kim Rachmeler: [00:35:59] So the end stage of that is something called a service oriented architecture.

And this is the idea that individual functions of the website are their own service. And that other elements that are performing functions, call on that service to provide that ability to either a subsection or a piece of the website. So what that means is you have a whole lot of independently running elements that combine to create capabilities.

That you can then use in a lot of different ways. Fair to say that that's the precursor of Amazon web services without diving down that rat hole for now, I'm sure we'll talk to people, but is that the precursor of AWS sort of separating all these services? If you will. Certainly the concept is critical because Amazon web services is from its very beginnings.

The notion that you are delivering small pieces of capability that can be combined in different ways. But it's not the case that the services that we pulled out got deployed as Amazon web service.

Dave Schappell: [00:37:18] Yeah. Yeah, I get it. So basically the big thing here is a service oriented architecture. And I'm assuming again, Amazon wasn't the first to do this, but it was maybe one of the first to apply it to large scale e-commerce and I'm assuming the primary driver of that was scaling or reliability or.

Kim Rachmeler: [00:37:38] All of those things, because you get a lot of benefits from doing that approach. In particular, it speaks to some of the core values that we had at Amazon from the very early days. For example, ownership, if you have a small piece of

service that you're providing. And you own that service and how it performs and the capabilities that it provides and you own it support and its maintenance and its, and it's metrics and it's value add.

Yeah, it's yours and you can. See your contribution. And if you execute some bias for action and do something interesting with it, then you can see what it does for customers. And so all of those things are enhanced. By teasing these things apart, you know, it's hard to say I own the Amazon website. Yeah. But it's a lot easier to say. I own search.

Dave Schappell: [00:38:44] It is something I liked, like when I joined and I'm sure it's changed now, it's been forever ago, but it was really impactful with number of the, just do it awards. Where people would get basically a sneaker, a Nike sneaker. Maybe they got bronze now, but it was really cool.

Not that they gave them out to employees who did things. It was that it didn't need to succeed. It just needed to be a big audacious thing to benefit customers, but it didn't necessarily have to work. Do you remember where that came from?

Kim Rachmeler: [00:39:13] Oh, I remember vividly. So there was an all hands meeting. Where Jeff announced the, just do it award as a mechanism to embed the value of bias for action in the company, Jeff was very concerned that we would become bureaucratic and hidebound, and it like some of the banks he had worked with prior to Amazon.

And so he wanted everyone to be thinking, thinking all the time about how they could do things better and do things for customers. So the idea behind this, just do it award was that as long as you had used good judgment and have not asked for permission, then you were eligible for this award. I personally, he was freaking horrified at this idea.

Because the last thing I, as somebody who was trying to organize and coordinate and make things happen in a predictable way in the engineering team, the last thing I wanted was people randomly running around doing shit. Okay. That was not. I had happy announcement from my perspective.

Dave Schappell: [00:40:26] Do you remember who got the first one? And then secondly, did you change your opinion about it at all? Or do you still feel that same disagreement with it?

Kim Rachmeler: [00:40:34] I do not recall a, just do it award that did something tremendously wonderful for the company or for customers. Now that's not to say it didn't happen. But I just can't bring one to mind.

The best thing that I can say is that Amazon put mechanisms in place to make their values real. And that is important. The Amazon values, there were six when I joined. Customer obsession bias for action ownership, innovation, high hiring bar. Frugality. Thank your desks or death word, ESCO work. Those things had concrete elements to them.

Yep. And in that I thought was magnificent. Whether or not the individual shoe represented something that I wanted to all good ideas.

Dave Schappell: [00:41:31] But I did like that it made it like real or, and it is, I get as a, especially you, I'm sorry. Uh, you were like, in my mind, the world's greatest program manager or technical program manager, but like, it's almost like the exact opposite of what you want is people going out. And so I get that, but at the same time, At most places, people just aren't encouraged to have a bias for action. And so there's a happy medium in between those two things that I think largely they accommodated, but most companies just never say, go try things. You know what I mean? They like go get permission and get another permission and another permission.

And, and that's what Jeff was probably protecting against becoming a bank like.

Kim Rachmeler: [00:42:09] Yeah. Yeah. And I got a great story actually, where Joel plays a significant role around again, bias ration. And I didn't really think about it in these terms before, but so we're trying to get V3 out and we're trying to move to multiple servers.

And so those servers were being delivered to the company and after they were delivered, they would need to sit around for three days to acclimate because you don't want to unbox a server and plug it in and fire it up because you can run into issues around. Yeah, condensation, right? Humidity.

Dave Schappell: [00:42:50] Plus you want it to get to know the other servers, you know.

Kim Rachmeler: [00:42:54] So anyway, so we were in an everyday counts situation and I was talking to you, the folks in our system network operations center.

And one of them said to me, well, you know, I could get these for us three days sooner if we paid for expedited shipping, but that was going to cost $3,000. And I didn't blink. I said you do that because I wanted those three days. And so that would meant that they were going to be delivered on Saturday morning of labor day weekend.

But anyway, I desperately wanted that to happen because three days is three days. And you know, when you're going to launch towards the end of September, those are pretty

critical days. So, uh, I said do it. And I went back and I was having my one-on-one with Joel. And I said, oh, by the way, I just told, I think it was Brian in that snack that he should spend three grand to get those three days.

And Joe looked at me and he said, let me shake your hand because he wanted. People like me out there making decisions to push things forward. Now, what I did not know at the time was that Joel, as a V P of engineering@amazon.com, the world's preeminent e-commerce bookseller. Joel Spiegel at that time had 50 bucks in signing authority.

You were going to go to the site cause you know, Jeff wouldn't care either. So, so not only did I not have the authority to tell somebody to spend $3,000? Yeah. Joel didn't have the signing authority and tell somebody. Spend through. And he went to joy, Coby our CFO at the time to make that happen, but even, you know, fill me in on it because he didn't want me hesitating to do those kinds of things.

And that is how you make your values real because at previous companies, I would've gotten chewed out for that.

Dave Schappell: [00:45:02] No, I know. There's like a thousand of these. I spoke to Joel just randomly and we spent I'm like, Joel, I just wanted to talk about the idea. And it was like 45 minutes and I'm like, yo, we gotta hang up and record this at some point.

Cause he, you know, he's very incredibly, mission-driven like, again, he was one of those people that believed in me way more than I deserved. And you know, it really impacted my life in a lot of ways. We're almost at an hour, but I still have a few more questions. You already mentioned about ownership and bias fraction.

I love them like, but when you think back to like maybe that summer of 97, is there one like Amazonian other than you mentioned Joel, a lot, which is awesome. Is there anybody else that. Comes to mind when you think about that person made such a gigantic impact, you know what I mean on Amazon or, and it doesn't have to be the website.

It could be the culture or the, if you don't have one, that's fine. I just wondered if someone jumps out.

Kim Rachmeler: [00:45:54] You know, it's not jumping out at me, but again, it was a pretty intense time. I was walking with Joel to our one-on-one and his about three weeks after I joined and he said, so how's it going? And what do you think.

And I chose my words very carefully. I said, I'm even more impressed with the facade than I was when I joined, you know, it was the duck paddling like hell beneath the water,

but nobody saw that. And I, myself, I wasn't surfing the wave, but I wasn't drowning either.

Dave Schappell: [00:46:31] Were there any big mistakes that you look at in hindsight? And again, we all have them, but like one thing that steps out and say, if I had done that differently, and this is more about telling other people, you know, like, was it too much control, too little control? You know, like something that comes to mind from that first six months or a year.

Kim Rachmeler: [00:46:48] It's hard because it's hard to say we would have succeeded without it, but I, I kind of feel bad the extent to which I promoted the work insane. F, uh, because I did, I, I had a hard time paying my bills. Not because I didn't have the money it's because I didn't have the time to pay them.

I was, you know, working seven 30 in the morning to seven 30 at night app the office. I know it's a little, it was a little nuts. It was totally insane, you know? And who knows if everybody hadn't been doing that, would we have succeeded? I don't know. But I don't think it was healthy.

Dave Schappell: [00:47:30] It wasn't healthy. I see. But again, you and I have both had similar difficult startup experiences and you were an investor in mind. Like you get a lot more humble, you know, you get a lot more humble when you've tried to do it and you see what it takes and not just this. People it's just luck and effort and maybe it would have succeeded without the effort, but all that'll be effort.

I don't necessarily want to sign myself up for it again, but, you know, I don't regret having, having done it, you know? So one other question, before we get to the end. So when you step back from it and let's say you squint, you know, at all of the things, like when you talk with current entrepreneurs, What types of lessons do you think they should get out of?

Cause those problems you dealt with and the team dealt with, you know, in 1997 are there's new problems, but it's the same sort of approach to it. What would you tell to a young entrepreneur, you know, who's starting their company and running into their own bottleneck situations. What would you tell them?

Kim Rachmeler: [00:48:24] Oh boy, I would say you need to focus on the right things. There's a lot of shiny objects out there and there's a lot of ways to get distracted. But as long as you are clear about, what's really important to do and not, uh, you'll be more likely to be successful. We came up with the idea. We, I came up the eyes of launch requirements and I was very, very clear about what the definition of that was, which was you will not launch without this.

And so that made people make hard decisions. And when you are resource limited, you have to make hard decisions and you need to have help in focusing what will move you forward. I'm making those hard decisions.

Dave Schappell: [00:49:18] Yeah. I remember I never heard the term brutal triage before coming to Amazon. And then, you know, you do learn it, like there's the must haves and then there's the things we can do in a week.

And then a lot of those things we can do in a week, you never do because the first stuff didn't work, you know what I mean? Or based on feedback, you go do other things. And so, yeah. It's like, what do you actually need to do to get out the door? I thought we were going to have time to talk about all kinds of other projects, but I'll have to ask you to.

Come back at some point. So you already mentioned Joel, who I'm talking to on Saturday. Who else is somebody that you think I know you and I have spoken about one or two, but like, who would you like to hear from, or hear some stories from that you think may not have the full picture?

Kim Rachmeler: [00:49:57] You know, I don't think you could pull anybody. Off of the phone tool and talk to them and get something interesting from those days because everybody was contributing something important to the success of the company. That's the benefit of a small enterprise is that everybody is doing something and has a perspective. And something to share. So yeah, basically if you could talk to them all, that would be great.

Dave Schappell: [00:50:27] I'll work on it.

Kim Rachmeler: [00:50:28] But you know, Joel and Marion and I was on a walk today with Greg Lynn.

Dave Schappell: [00:50:33] Oh, I'm going to talk to Greg. I mean, Greg was not only good stories about him working on auctions, but also he had his own startup Findery and he's done a lot of really interesting things over the years. So yeah, he's definitely high on the list. I can't wait to talk to him.

Kim Rachmeler: [00:50:46] Wayne Bowman from search and T anyway, like I said, All of them because they were all doing great.

Dave Schappell: [00:50:53] Yeah. I can't wait to have the story that Botega boxes told because it was sort of a, it was a term there and it was probably took me three months at Amazon to realize that it was.

Dwayne Bowman and Ruben Artegas. So I mentioned to you on Amazon, we always say every page has to sell. So on the post, we're going to put up for this podcast. I wanted to ask if you had one or two products that you'd like to, I know you've become a semiprofessional baker for those who aren't aware. And we also share parentage French bulldogs, but are there any products that you recommend that I sure.

Kim Rachmeler: [00:51:25] So, uh, I'm on the board of a nonprofit called empire social ventures. And what they do is invest in entrepreneurs in India right now. Who create jobs for the ultra poor. So basically pulling people out of poverty through dignified work and sort of taking a look at also Pius ventures, U P a Y a U P a Y a.

Dave Schappell: [00:51:50] So Kim, thank you so much for being my first guest on the invent, like an owner podcast. I personally found it really interesting and I'm positive other people are going to as well. And in addition, it's just always good to see you and to catch up for the audience. Thank you for listening to the event like an ogre podcast, the number one first episode, sorry, not the number one.

Anything. If you'd like more details about what we discussed today, or contact me with edits or to suggest future guests, topics, whatever, please visit invent like an owner.com and sign up for the weekly newsletter and, you know, be sure to subscribe to the podcast to get all the future episodes. That's it for today.

And remember no sniveling.