

EPISODE 846**[INTRODUCTION]**

[00:00:00] JM: Amazon Web Services is the leading cloud provider by a large margin. Amazon established its lead by being first to market in 2006 with Google and Microsoft taking several years to catch up to the huge business opportunity of the cloud.

Since 2008, Google Cloud has been working on cloud products for developers. It started with App Engine, which is widely used internally at Google, but has not had overwhelming public adoption. Over the last 11 years, Google has refined its understanding of how customers want to buy public cloud resources.

Google Cloud products like Cloud Storage, Persistent Disk and Big Table have given Google parity with many of the AWS public cloud offerings. Although Google has caught up to AWS in terms of products, the enterprise market has continued to choose AWS as its default. AWS is widely perceived as having more experience in running enterprise workloads and a better responsiveness to customers.

In order to keep Amazon from running away with the cloud market entirely, Google needed to shift the competitive landscape to different territory. Kubernetes provided the paradigm shift that Google needed. The market for cloud providers has changed completely due to Kubernetes. When Google open sourced Kubernetes, it created a common code base for software companies to build software for managing distributed systems.

In the span of five years, Kubernetes has turned the world of cloud products into a world resembling the open source Linux ecosystem. This is a remarkable shift and every infrastructure software vendor is still figuring out its strategy for adapting.

Adam Glick is the head of modern infrastructure and serverless marketing at Google. With Craig Box, he hosts the Kubernetes Podcast from Google, and excellent show about recent developments and evergreen concepts within the world of Kubernetes. I use the Kubernetes Podcast to catch up with some concepts in the Kubernetes ecosystem prior to the most recent

KubeCon. So if you are going to attend a KubeCon, I highly recommend binge listening to the Kubernetes Podcast.

Prior to Google, Adam worked at AWS for 3 years and Microsoft for 12 years. He has seen each of the major cloud providers up close and he has a deep awareness for how each company thinks. Adam was a fantastic guest. We had a great conversation about the cloud native landscape, the world of podcasting and developer marketing, which may not sound interesting, but you are being marketed to constantly, and it's a growing, and competitive, and fascinating landscape, and you as a developer who is going to be buying tools as much as building them should be aware of how marketing in the software landscape works.

Speaking of marketing, a few announcements about upcoming things in the Software Engineering Daily landscape. FindCollabs is the company I'm building. If you have a cool project you're working on, I would love to see it posted on FindCollabs, and you can find some collaborators to work with on your project. I check out every project that gets posted to FindCollabs and I've been interviewing people from some of these projects on the FindCollabs Podcast.

I am attending some conferences in the near future. Datadog Dash, July 16th and 17th in New York, and the Open Course Summit, which I'm actually going to be emceeding. That will be September 19th and 20th in San Francisco.

We are hiring two interns for software engineering and business development. If you're interested in either of these positions, send me an email with your resume to jeff@softwareengineeringdaily.com with internship in the subject line.

We have a new app for Software Daily on iOS. This has a lot of cool features and you can become a paid subscriber for ad-free content. You can connect with our community. We've been working on this app for a couple of years, and the most recent release has a ton of new features and polishes and stability. If you want to become a paid subscriber, you can go to softwareengineeringdaily.com/subscribe and get ad-free episodes, and please do check out that app. Give us any feedback. The Android app is coming soon. The details for all of these are in the show notes, and let's get on with today's show.

[SPONSOR MESSAGE]

[00:04:58] JM: Capital One makes technology to impact real people. Capital One is a bank, and today's banks are becoming technology companies. Capital One is an engineering-focused organization that puts technology at the center of everything they do. Engineers within Capital One work with new technologies and develop modern systems for banking customers.

Capital One is led by the founders and they're exploring new possibilities and working to build a bank for the future. Capital One is hiring for New York, Dallas, D.C. and many other cities across the United States. Capital One works in small cross-functional teams, which embrace a lean, agile approach to cloud native software development.

At Capital One, you can bring your ideas to life. Go to capitalonecareers.com/sed and find out careers that might fit your job requirements. You can also check out the episode that we did with Capital One. We explored the idea of digital transformation in the realm of a bank. You can find that episode on Software Engineering Daily .

Capital One is an equal opportunity employer across gender, disability, veteran status, and sexual orientation. To find opportunities within Capital One, go to capitalonecareers.com/sed.

[INTERVIEW]

[00:06:34] JM: Adam Glick, welcome to Software Engineering Daily .

[00:06:37] AG: Thanks. It's great to be here.

[00:06:38] JM: You are a cohost of the Kubernetes Podcast from Google. Most people still do not listen to podcasts. Why is that?

[00:06:48] AG: I like to think that it's a growing medium. I like to think that it is something that people are discovering. I love audio personally, and I think it's about how it fits into people's lives. The thing that I think was really kind of an open door moment for podcasting in general

was really Serial, if you listen to the Serial Podcast from NPR. I know so many people that got into it because that was such an engaging story that they had there that it kind of open their eyes to it.

It's also something that is not default for everybody. So, certain platforms have a podcasting built-in, other ones you need to go and get it. So there's obviously a little bit of a barrier to get over that, and I think Spotify has really done a lot to open that up, because a lot of people had just have Spotify, and now that they've open that up to podcasts, that's become a great channel.

[00:07:34] JM: Is Spotify trying to become the YouTube of podcasts?

[00:07:37] AG: That's an interesting question. I think Spotify is probably better to answer that than I am, but it seems like they want to be a great place for audio. When I talked to them, that they're looking at how can they serve people's audio needs, and they've been super responsive when we put out our podcast. Initially, we were not on Spotify, and we reached out to them because a number of people who are listening to the show were like, "Hey, I listen to Spotify. How can we do it?" and we reached out and they were super responsive to get it on there, and that's been a great avenue for things. They also made a purchase recently, I believe.

[00:08:08] JM: Two purchases, three purchases actually. Why is it that the audio medium ended up in this decentralized format that is standardized over RSS and MP3, whereas video ended up in a more centralized world with YouTube?

[00:08:31] AG: I could give you – My theory is on kind of media evolution on that.

[00:08:35] JM: Yeah, please.

[00:08:36] AG: I think certain things drive towards a centralized repository. If you think about how did podcasting get started, and you go back to the work that was done with – Oh gosh! What was it called? The thing with the lemon logo by the ex-MTV VJ? Was it is Adam Corolla? Sorry. I don't remember. But the very early, you were looking at a standard. How do we create a standard for that? I think, frankly, you were just – That was way ahead of the curve if you think about it. So how do you create something – So you look at what's a standard that can get

people on board? So you have people that are building these pieces, but then you need pod catchers, you need mobile devices that can actually consume that. Back then, maybe you had one, creative – One of the early kind of MP3 players, but then you need something to sync it up and then there were things that would tie into iTunes to bring it in, but you didn't have an easy way to get it, and mobile devices were still fairly early on. Now, everyone of us has one of these things in our pocket and the apps are widely available.

I remember at the time, going back, people were like “Oh, everything is moving towards video.” People want richer media, richer experiences with things. You think about video chatting versus phone calls, kind of those adaptations. I think that everyone just hadn't grasped the concept that there is a really important space for audio only content. The thing that I hear most from our listeners and just from my own experience as well is like what are you doing when you're commuting? You put something on in the car. You're on the train, or what happens when you're going out for a run? I'd love to run, or people I know that like to bike and they want to listen to something. It's time that they want to be able to engage with content that matters to them, but they can't watch something. Something like YouTube is super engaging. There're a bunch of channels that I subscribe to, and there's great stuff, but that's something that takes full attention for me. I am watching YouTube the way I'm watching a movie.

But podcasts, it's something I can listen while I'm doing something else, and there's a whole lot of time that happens. So I think there's a niche that gets filled there. That used to be basically radio, and I think the shift you're seeing is from terrestrial radio of listening to real-time broadcast of that to delayed. The same way that people watch television, and you're getting cord cutters who are just, “Hey, I want to watch it on Netflix or Amazon Prime or something on my own.” Podcasts are kind of that same thing for audio.

[00:10:48] JM: Why didn't video podcasts takeoff?

[00:10:50] AG: I don't know. The businessperson in me says it's a much harder channel to monetize. If you take a look on – But, I don't know. The other side of it might also be a question of how do you get paid for it, but also how do you monitor it. So if you go to YouTube and you have a YouTube channel, you get all sorts of statistics on how many people are subscribing. How much people are watching any individual episode? How far do they watch through it? You

get really good information, and there's a model for that if I think about the advertising model just like television.

But with podcasts, as you know, it's a little harder to measure your audience, because there's no centralized place. Like you can take a look at your iTunes statistics, but that won't get you the stuff in Spotify. You can get the Spotify stuff, but what about the people to go straight to the RSS feed? What about people that use independent pod catchers for things? There's a lot of different ways.

So it's not as easy to be able to track those. So if you listen to a lot of podcasts, you'll often hear people do these, "Hey, we've got a survey once a year," that they're, "Hey, can you please go take our survey so we can know who you are?" Because it's very hard to know who your audience is, unless you have something that's fairly targeted. We target the Kubernetes community and the cloud native community. That's who listens.

My mom might love me and tune in just so that she can hear my voice, but she's not part of the Kubernetes community. She's not likely to tune in. It's not a general audience kind of podcast. So we have a little bit more knowledge of who our audience is. But if you do something that's more general audience, if you are, say, NPR. How do you know which of your listeners are listening in from where and they've taken some steps. They bought a pod catcher recently, and I don't know what personal it is. But as I think about that, one of the benefits would be to start understanding who your audience is so you can know more about them and provide things that are more beneficial to them.

[00:12:32] JM: Although, then, that implies that the user is opting in to having their podcasts monitored?

[00:12:41] AG: No. The user is choosing to like sign up for something. So like when I listen to your podcast, for instance, depending on how you look at who's listening to it. You may or may not know who I am, who your audience is. So if you're making things, you always want to make things that cater to your audience.

We have a niche podcast that caters to an audience. Our audience is kind of self-defined. Let's say you're making something that's much more general audience. You're making something that was targeted at a much broader group. Who are you reaching? Who are you not reaching? You don't know any of those things. How can you best meet the needs of those people if you don't know who they are? So when I think about video has a lot of those pieces and when you have something that centralized, you get a lot of that information. When you have something that's decentralized, it's harder to have that information.

[00:13:24] JM: Sounds like you're suggesting that Spotify will become the YouTube of podcasts.

[00:13:28] AG: It seems like they certainly might want to be that, and there might be a good case for it. I, as a believer in – Not to get too much in economic theory, but as a believer in regulated capitalism, I think the market will bear that out. If we take a look at technology over the long-term, there's rarely someone that owns something in perpetuity. If you take a look at any technology trend, you see things and you will have sometimes a dominant player, sometimes a couple dominant players in the space. But rarely do those things survive the actual evolutions and changes in the space as a whole.

[00:14:02] JM: And here's my question; does YouTube start to look more like the fractured ecosystem of podcasts, or should I say does video begin to look more like the fractured ecosystem of podcasts, or does the fractured ecosystem of podcasts begin to centralize into Spotify, or do both happen at the same time?

[00:14:22] AG: This would purely be speculative. I sit in this space more as a creator and as someone who enjoys it, than someone who's trying to make the space.

[00:14:29] JM: Okay, fine. Then put on your economic theorist hat.

[00:14:32] AG: But I think you're likely to see parts of both of those. So I think you will have much like many things. You'll have centralized things, like YouTube is kind of the place people go for user-generated video and some curated video, but usually people using that as a channel for those things. But that doesn't stop other places from video showing up. You have people putting video on other sites, Vimeo, or Facebook, or even people posting it on their own

sites. So there are other channels for video, but there's a main channel, and there's a benefit to having it centralized. The biggest benefit is simply searchability. If I want to look for something, I can type it into YouTube and I'm probably going to find something on the topic that I'm interested in. There'll be something about that. So there's benefit to that.

In some cases, there's benefit for people having kind of niche things separated from that. So I think the same is true with podcasts. Think about like audio and what we do. The main source so far is actually probably been iTunes. If you think about like as we publish our feed and we build our feed, we put it out there. It's available for anyone to read as a file, but most people that get it. When I say people, I'm talking about the publishers that put it out there. So the folks, like all of the pod catchers. They actually pull it from what happens up on iTunes.

iTunes has set the standard. A lot of the RSS feed. There's the generic kind of atom feed tags, and then there's the iTunes specific ones, and most people have just adopted the iTunes one, because it's so ubiquitous. They've become a centralized piece, because they owned the ecosystem from device to software, and then relationships with the publishers. So that's kind of become a central repository for those things. So a lot of people will pull from that and that's where the updates even though they're pulling the files directly from us.

So I think that there is some centralization that will happen, and that's probably good in terms of people being [inaudible 00:16:18]. Is that going to be iTunes? Is it going to be Spotify? Is it going to be something new that comes about? We will see. I think there will also be independent channels, because there will be benefit in that. If I think about people that do commercial podcasts – We don't take any sponsorship on our podcast. We're self-funded for what we do, but there're a lot of people that do.

There're people that do like sponsor podcasts where you have to pay to have access to the feed, although they're relatively rare. I don't know a ton of them, but I know a few of them. I'm a subscriber to a couple. How do you fit that model for the people that want to have their contents, but they want to have paid access to it? There's not a great model for that right now and not great tools for people to consume it, but I think that there is an audience and creators that want that.

So I think that you will see people that become aggregators and big people in that space. It could be Spotify. It could be iTunes. It could be Google Play. It could be YouTube. It could be lots of folks. I think Spotify is doing some good work there, but I think that it doesn't lead itself to exclusively a one person takes all. I think there will always be niche communities that are served best by things that work directly through their communities.

[00:17:24] JM: What do you do at Google?

[00:17:25] AG: My day job, as I said, the podcasts is really a fun thing Craig and I do as a side project. My day job is by lead product marketing or technical product marketing for the cloud native ecosystem. So Anthos, GKE, our Istio work, our Kubernetes marketplace. All the things kind of container related.

[00:17:42] JM: How do you effectively market cloud software to developers?

[00:17:46] AG: It's funny, because my background is actually as a developer. So I did development and PM work before I went into marketing. One of my kind of tenants is that good marketers are educators, and bad marketers are hucksters.

So developers hate to be marketed too. I know, because I still do some side development. People don't like that. It's not a great medium and it's not a good way to convince things, people of things. But as a developer, what I really love is information. Give me good data. Help me know how I can do what I want to do faster, better, more efficiently and more securely.

So by providing people good data, you allow people to make their own decisions, but make them as a fully formed decision. So I focus a lot of the work that me and my team do around how do we give people good data? How do we educate them well on what it is that the technology can do for them? The benefits that are there and how they can get started and run it, and then let developers make that choice, because developers make good choices when they have good data.

[00:18:41] JM: From the bouquet of marketing options available to software companies, we have banner ads, e-books, conference booths, airport ads, podcast ads. I'm looking at my KubeCon badge right now and it has –

[00:19:05] AG: The lanyard ads?

[00:19:05] JM: A lanyard that is sponsored. What are the less effective strategies for developer marketing?

[00:19:15] AG: So when I think about how do we reach developers and how we do the best thing that we can for developers? It's about how do we help them do their job and what is the goal. So, sometimes if you have something, you're just looking at what marketers would call top of funnel. You just want awareness. How do we create awareness? Then you want to get people towards consideration and then this whole marketing funnel that you want to do. So, sometimes it's just about do people know who you are?

So I'm sure you get a lot of these, people that just reach out. They want to talk about their brand, their product. They're just trying to create, "Hey, do people know who we are?" Go to KubeCon. It's a great example, because it's such a fast-growing community. There are so many different projects. There are so many different companies. You go out on the show floor and it is this sea of companies all doing interesting things, but there's only so much headspace that every developer or operations or dev ops team person has been. So all of those vendors are essentially fighting for mindshare. So, how do people even be aware of who you are is kind of the first step.

So, if it's awareness, then people are just trying to put their brand, their logo, "Hey, do you recognize who we are?" There's some people doing some really creative stuff if you walk the show floor. One of the things I love to do is walk the show floor and see what these people are doing.

[00:20:23] JM: Me too. I won't go to any of the sessions. I won't go to the keynotes anymore. I do the podcast and then I got chill at the Expo Hall.

[00:20:30] AG: What's the most interesting thing that you saw?

[00:20:32] JM: Actually, I spent almost no time at the Expo Hall at this KubeCon, because I got a bunch of interviews lined up, and also Barcelona is really nice. So I've just been going on the bakery tour. We're talking about our pastry competition before the show. You actually have eaten more pastries than me today.

[00:20:49] AG: Not sure a title I want.

[00:20:50] JM: That will change by the end of the day. It will change. This is my last day in Barcelona. I'm going to eat a lot of croissants. But I am not going to the Expo Hall very much. When I do go to the Expo Hall, like – Let's see, most interesting thing I've seen in the Expo Hall? Honestly, what I am intrigued by is just there is so much – I mean, it's a case study in psychology, in mass psychology, both at the level of what are the tactics that some of these companies use to attract developers, and also, what are the tactics that the conference uses to sell marketing products to the companies? Because you see so many decisions where you was a developer – Like when you put on your developer hat. You walk around and you're like, "This doesn't resonate with me at all. What are you doing? Why did you spend \$15,000 on this? Why are you handing out bouncy balls that light up with the name of your consultancy on it? What are you trying to do there? That's not doing anything. I'm going to take this bouncing ball home and throw it out. I don't need a bouncy ball. Maybe my kids are going to play with it. Maybe my dog is going to play with it I guess, but –"

[00:22:12] AG: Do you have a rubric? Because I totally have a rubric on like what swag I will take? What swag I think is good to put out there.

[00:22:17] JM: I don't take any of it. I think it's a ghastly wasteful industry. I take almost none of it. I mean, I have a Docker shirt that wore yesterday. I have very few shirts that I wear on a regular basis. But tell me your rubric? What swag do you claim?

[00:22:31] AG: At a certain point you've done enough of these events that it's not like, "Hey, I don't need to go trick-or-treating." Like the last day you see people that take out the bags. They literally go trick-or-treating around, "How do I get this? How do I get that?"

My general view if it's not something I want, if it's not something I'm going to use, I won't take it, because that's just wasteful and I don't want to kind of contribute to the wastefulness. What I take most of actually is pictures of things that I think people are doing interesting things with.

Sometimes it's people that just for education for folks in our team about how do you do better marketing? I'll take pictures of a booth and I'm like, "Hey, look at this booth," and you'll see things like you can't see the company's name or logo, or if it's a new company, you don't know who they are necessarily. People who are here that have just announced this week. So they're brand-new. They came out of stealth mode.

So do they say what it is they do? Because people walking by and you have to kind of convince them why should they come and talk to you. If they can't look up there and see, "Okay. This company does CICD, or dev ops, or they've got a private distro, or they do hybrid," or whatever it is that's the key value that they are providing to customers. What's going to get people to stop by? Because all that's getting people to stop by is you're going to give them a tchotchke. That's not a great way – Getting back to your like what's effective and not effective. What's effective is why do they want to talk to you? What is valuable to them? Then engage on that.

So some of like the interesting things I've seen is – So I'll take a picture of like, "Hey, those things, I'll show them to my team." When you're thinking about doing events, what is it you seen in these pictures and use it as kind of learning opportunities. You also see people that do things that are really interesting, that really engage people. Like one table had carrots out, and I was like, "Okay. I have to ask. What's with the carrots?" They're like, "Well, everyone gives out candy. So we felt we'd do something a little healthier."

[00:24:14] JM: That brilliant.

[00:24:15] AG: I was like, “Okay, you got my attention.” Kudos to that. I was like, “How many people have taken the carrots?” It’s like, “No one seems interested in the carrots this week.” I was like, “Okay. But they got my attention.”

There’s another group that was doing purple sequin jackets. They got attention. There was one group, we’re actually talking about this for like –

[00:24:31] JM: They were giving out purple sequin jackets?

[00:24:33] AG: No. No. They were wearing them.

[00:24:34] JM: Okay.

[00:24:34] AG: There was one group that we were talking about, like it used to be t-shirts were all the rage, and you can still get plenty of t-shirts, but now socks have become kind of a thing. There are lots of people giving out socks, or we’re talking about what’s the benefits of each of those? We’re saying, “No one ever gives out underwear.”

[00:24:48] JM: I need underwear. I had to do laundry twice on this trip because I’m over – definitely sharing too much information, but ran out of underwear. I would love more underwear swag.

[00:25:00] AG: So as it turns out –

[00:25:01] JM: But that doesn’t market to anybody though. It’s under my – I mean –

[00:25:04] AG: No one sees it.

[00:25:05] JM: Unless – I mean, there is a certain opportunity for marketing there, but –

[00:25:10] AG: There’s a narrow conference and probably not this one.

[00:25:12] JM: Probably not this one.

[00:25:14] AG: But there actually is a booth downstairs I walk by. They were giving out underwear and baby onesies. I was like, "Okay. That's unique."

[00:25:21] JM: The baby one onesie. That's a pretty good one.

[00:25:23] AG: So I looked at that and as someone who was a newborn. So me and my wife just had our first child, and I was like, "Baby onesie. That's an interesting one." I was like, "Do you have any of those?" In the rubric of will it make it on the plane? That would make it on the plane for me, for instance.

But all sorts of those things you look at kind of like, "Hey, what stands out? What's different?" Because there's so many vendors. It's kind of how do you stand out? There was one group that's giving away cooking spoons, and I'm like, "Okay, that's interesting." It kind of ties to their particular company name.

[00:25:50] JM: Like wooden cooking spoons or plastic –

[00:25:52] AG: Yes.

[00:25:53] JM: Okay.

[00:25:53] AG: I was like, "Okay. A little bit different," but it also ties to the theme, like that's tied to the theme of their company name and such. So there people doing a lot of different and interesting things, and there are some people, there's actually two vendors on the floor, or I should say there are two exhibitors on the floor that aren't vendors. They're actually customers and users of Kubernetes, and that got my attention, because I was like, "Okay, you've gotten a booth at this conference full of vendors and you're not a vendor. Why are you here?" One of those was Adidas. I don't know if you saw that they're down there.

[00:26:22] JM: I did see that. I mean, I saw Home Depot at the last conference.

[00:26:26] AG: They're recruiting. They are looking for talent.

[00:26:30] JM: If you think about it, if they get one engineer.

[00:26:34] AG: Oh, totally paid for itself.

[00:26:35] JM: Pays for itself.

[00:26:36] AG: Yup. Cheaper than hiring a headhunter and a much better way to get your name out there. Talk to people about the interesting stuff that you're doing. If you're a runner, they actually have these things you can kind of clip on your shoes, go for run. It will suggest the best pair of shoes for you. So nice like kind of product demo piece that they're doing.

I don't know how many people are going to run around the conference hall, for instance, but just – Again, different people doing lots of interesting different things at the conference. That's what, as a marketer, I love to see. As a person who cares about the community, it's just great to see how dynamic all the different things are. All the different projects that are happening for us doing the podcast, it's, "Hey, what's really interesting out there that are people that we can – Hey, do you have someone we could talk to, bring on the show? You're doing something really interesting we haven't heard a lot about. Let's share that with the community."

[00:27:22] JM: Google describes itself as the open cloud. What does that mean?

[00:27:27] AG: So with Google Cloud, we've really focused on openness. When I look at that, I see what's our commitment to open source, open software, open specifications. How do we make sure that the cloud is an open and shareable system versus a closed and proprietary one?

So we've invested a lot in open technologies, and there're a lot of them that were known for. I mean, Google has over a thousand open source projects that it's either created or contributed to. But, certainly, in the cloud native space, and we help build with CNCF. We created Kubernetes and donated to it as the first project as part of it, and we really care about that being an open ecosystem. Because as an open ecosystem, that is beneficial to the community. We've

always been involved in open source. Google uses a lot of open source. The people that we hire care a lot about open source. So wanting to be a great partner and community member in that is something that's been important to us. For a business standpoint, it's also somewhat different than some of the other players in the space that have not had a long history of really caring about and engaging in open technologies and open source.

[SPONSOR MESSAGE]

[00:28:44] JM: LogDNA allows you to collect logs from your entire Kubernetes cluster in a minute with two kubectl commands. Whether you're running 100 or 100,000 containers, you can effortlessly aggregate, and parse, and search, and monitor your logs across all nodes and pods in a centralized log management tool.

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Thank you to LogDNA for being a sponsor of Software Engineering Daily.

[INTERVIEW CONTINUED]

[00:30:07] JM: Google did help create the CNCF, and the CNCF has been transformative to the software industry. I mean, I've seen this firsthand. I started my career in software around the time that the cloud was getting off the ground. Just as I was graduating college, I was starting to realize how important the cloud was.

Then around the time the CNCF got started, I started to realize the costs of a proprietary cloud, which is basically the world that we were living in when CNCF started. Since the open cloud movement, largely due to the efforts of Google and the CNCF got off the ground, we have seen this transformative acceleration of people piling into cloud technology, of enterprises piling into cloud technologies to such an extent that it's – I mean, it's definitely helped even the proprietary cloud providers in a tremendous way. That's all great, although it's certainly hard to draw a causal relationship there, because also just cloud computing has been growing tremendously. So it's hard to know what the counterfactual world looks like, the world without the open cloud.

[00:31:31] AG: We can certainly take some kind of indicators from both previous examples in this space as well as other things. So like last year at KubeCon, I was here talking to some folks, and there was an interesting discussion about that Kubernetes had kind of become the de facto orchestrator that containerization had kind of hit critical mass that like this was becoming a big thing. It still is and it's growing.

The question the person that I was having a discussion with was talking about is like, "Is this going to fracture and fall apart?" The example they were giving was open stack, and they were like, "Hey, we've heard this story before and it got big," and then like all the big vendors came in. It wasn't a community thing as much. It really became a whole ecosystem thing. Then they all fought with each other and it kind of fell apart.

My position was that I don't think that will happen with the Kubernetes in cloud native ecosystem, and their perspective was, "Hey, I'm not quite sure I kind of – I think I've seen this before." I looked at it and my view as to why I don't think that will happen with this community is lots of people are creating Kubernetes distros. But one of the things that Google did with the CNCF is create a certified Kubernetes program, and in order to use the Kubernetes name, in order to be part of that, you need to commit to being upstream and compatible.

What that means is you can't fracture it. You can't go and embrace and extend and kind of create your locked down proprietary version. You can create your own version that you support, and there are certainly many vendors that make versions they support. You can create your own hosted service. That's what many cloud vendors have done, but you can't deviate from the

upstream version. So they all stay compatible with each other. That is really important, because that's what was a challenge with things like open stack.

So, yeah, you see other vendors get into it, but you've also seen that everyone, one, stays compatible. Two, there are lots of people that had their own proprietary different versions of container orchestration. What you've seen is everyone get on board with Kubernetes, that instead of fragmenting, "Hey, here's how we're going to do container orchestration." It's actually consolidated, and it's consolidated around with the CNCF has put out there and the Kubernetes ecosystem.

Even with some of the – You're mentioning kind of proprietary cloud pieces. Even people that had proprietary cloud pieces have created open parts of their cloud built on the Kubernetes standard. So people can benefit from all the things that are happening in the Kubernetes ecosystem regardless of where they run that. I think that's a huge win for the community and for the user base as a whole.

[00:34:07] JM: That said, Google heavily contributed to the founding of the CNCF. How does the community maintain a sense of impartiality when you have competing vendors in this ecosystem and the ecosystem was arguably started by one of the biggest vendors?

[00:34:36] AG: Sure. It's one of the things people wonder a lot about, and Google created Kubernetes. They created the CNCF in order to make sure that that was separate from Google. So that people felt that it was part of a neutral third-party. Google is one of a number of large organizations that are all senior members and sit on the TOC for CNCF. The purpose of doing that was to say that it's not fully Google controlled. Because there's a difference between having something that is open source where people can see the source code and something that's part of a foundation where the foundation actually decides what check-in's come in, what features are a part of it. All those things are driven by the community.

So Google is a member of that community, but Google doesn't run that community. The CNCF runs that community. If you take a look, it used to be that Google did – Despite the fact that Google has hundreds of engineers and has increased the number of check-ins that we've done to the project, because the community has grown so much, Google only does about 40% of the

check-ins of Kubernetes as a whole. The community actually does more check-ins than Google as it's not Google's project. It's the community's project. Google is a strong member of that.

So that was part of the reason with creating the CNCF and putting it in the CNCF, is Azure cares about this. Azure is doing a lot of investment in open source. They're doing their check-ins. They're a part of that community. Red Hat, now part of – Or soon to be part of IBM has been a strong member of the community for a while. They're there. They're checking in. They do about 12% of the check-ins I believe.

Even Huawei is doing a bunch of check-ins. There's a lot of growth in China. So the creation of the CNCF and putting in a neutral third-party into the Linux Foundation was explicitly to address those kind of concern so that this isn't something that people feel is just Google. Google created it. Google does a lot of work to continue the vision to work with the community, but it's owned by the CNCF, not by Google. We're just a member of the community.

[00:36:30] JM: By the way, not to deviate the subject from Kubernetes to mobile, but you seem like a guy it's pretty plugged in. Do you have any sense for what's going on with this Huawei stuff?

[00:36:42] AG: I do not. I mean, I see what I see in the news, the same as you, but that's sits in a part of the company outside a cloud. So I don't have a lot of knowledge on what's happening there.

[00:36:51] JM: You know, it's so weird. Did you go to KubeCon China?

[00:36:56] AG: I did.

[00:36:56] JM: Man, my perception there was that those engineers are just like us, and they don't like this sense of a rivalry that almost seems to come from suits, or from the government, or something, or this narrative, and I don't know where it comes from. But I know that the engineers who are actually building stuff don't like this.

[00:37:23] AG: This feels like a long told story of the scientist, the people that care about technology, which I think we put ourselves in that camp and the politics that happens around. There's certainly a lot of politics happening between the two governments involved, and that's a decision far above my pay grade in terms of what happens there.

My goal was simply how do we create great technology and how do we help that technology grow so that everyone can benefit from it? I leave it to governmental affairs and the folks who are good at the government stuff to figure out those pieces. I like to talk to geeks about geek stuff.

[00:37:59] JM: Speaking closer to your pay grade, there are a bunch of scientists and engineers who are in charge of AWS. What is the diplomatic relationship between Google Cloud and AWS?

[00:38:17] AG: You used to work at AWS, right?

[00:38:18] JM: I was at Amazon.

[00:38:19] AG: Amazon. Sorry.

[00:38:20] JM: Marketplace side.

[00:38:21] AG: Got you. So full disclosure, I've worked at AWS previously. Also spent some time at Azure. We jokingly say that I've done the Cloud tour in Seattle.

[00:38:31] JM: You have.

[00:38:32] AG: I don't work on the partnership side. So it's hard for me to say what the relationship is. Obviously, we compete in the marketplace. We're both trying to bring cloud services to the vast majority of developers and IT and dev ops folks. In terms of partnerships, that sits with the partnership team, but I know at a technology level, I still know a ton of the folks over there. We see each other at conferences. We chat. Lots of our developer relations folks know each other.

When it comes to the open source pieces, things like Kubernetes, we all sit on the CNCF and work together to try and move the community forward. So from a technology standpoint, we're all trying to make the community better. From the business standpoint, I think Jassy has his goals that he wants to achieve and TK at Google. I suspect that those two are each trying to drive their businesses separately.

[00:39:20] JM: Having worked at Amazon, both of us, that company is so tactically smart, and this Kubernetes – I mean, just strategically and tactically speaking, this whole Kubernetes versus closed ecosystem strategically, tactically, has been such an interesting, I don't even want to call it a conflict chess game to watch.

[00:39:51] AG: It's certainly a strategic shift I think for their company. If you look about – Amazon has always used open source technologies in their cloud services, but they've not necessarily talked about it what they're doing with those pieces. Now, joining the community, they created a proprietary container orchestrator and then decided they needed to do Kubernetes and invested in that. They're making a shift.

Microsoft, kind of the same way. They built the Windows empire. Full disclosure, I spent a good portion of my life working on that stuff.

[00:40:22] JM: 12 years.

[00:40:24] AG: Those are different business models, and I think what they've seen is there's a change in the software world and what developers want, and developers really care about open source technologies and using those. Amazon, I think having worked there, they are extremely customer- focused. It's one of their leadership principles, and customer obsession I think is actually the actual term, and they do live that.

Having been there, they live that, and that's becoming something that is helping drive a shift within the company, and they're figuring that out. I mean, they hired Adrian Cockcroft. They created this open source piece. So they're figuring out how does that fit into their world. I think

they're making strides to try and make that happen. I think that's a shift for them and that's a challenge.

At Google, it's much more an ingrained part of what we do. We've done open-source for years. We've made check-ins to the community. That's been a part of who we are. So this is a very natural place for us. It's why we created the CNCF. It's why we've given Kubernetes to the organizations. Why we created Istio and made it open source. Why we do all of these pieces and make them open-source. That's part of our DNA.

So other people are kind of trying to figure out how do they change to be a part of that, because that's the world is changing. I say that they're smart to realize that they have to do that, because not doing that and trying to stay proprietary is probably not something that's going to be long term sustainable.

[00:41:42] JM: It is a more natural strategy. Google strategy feels here. I mean, seeing the whole Kubernetes thing and watching Google do this strategic jujitsu where they've put themselves in a position where, yes, market share-wise, they're still an underdog. There's no getting around that, and it's funny seeing the way that the press or the less engineering press try to report on the present day market share. That's a forward-looking forecast. When we all know that in 5 or 10 years, the cloud markets can it be tremendously bigger than it is today. The total addressable markets can be tremendously bigger. It's just amazing that Google has jujitsu'd to itself into a position where it is strategically comfortable, like in a forward-looking perspective.

What about the licensing debates and the whole perspective on the ISVs, the Elasticsearch, MongoDB Redis Labs, etc., taking issue with the fact that Amazon, AWS, was creating competing services and those competing services would be highly integrated with the AWS marketplace and IAM policies and so on when those companies, the ISVs, did not have a way to tightly integrate with the native AWS customers. Also, there was not contribution from AWS to the extent that I understand back into the open source projects that AWS was basing their services off of. Was AWS doing anything wrong there, or are these just – They're playing by the rules or lack thereof of the open-source game?

[00:43:46] AG: So there are a couple of things there to unpack. First, in terms of like our status in cloud. I agree with you, there's a lot of cloud growth to go. I mean, we are early stages on what's happening here. In terms of where we are, an underdog or not, that really depends on what you're looking at. People like to kind of consolidate all the cloud, but there're really a lot of different markets.

If you take a look at the leading work we're doing in, say, machine learning or big data, people are often looking at just, "Hey, what's revenue from cloud?" and trying to just – Basically comparing a dollars game between them. That's difficult to do since only one cloud actually reports its dedicated cloud revenue. That's AWS at this point. That Google cloud doesn't report its revenue broken out separately, neither does Azure. They stay cloud, but they also lump in things like server sales into that. So Windows server that runs on AWS, they count as cloud revenue. So there's only really one cloud's numbers that you can look at there. But, certainly, we're early stages and AWS was the first one out there talking about this. They've got a first mover advantage. They're a big player in this space without question.

In terms of the open source piece and kind of the controversy that people had about it. I think what we're seeing is the difference in what people's business models are and what they are comfortable with, and it's the difference between Google being extremely comfortable working in an open source world, making things available, like working for the betterment of the community versus people that have a more proprietary background and look at how do we make our own version of that and seeing the reaction from the community.

In terms of wrong, I think of wrong is a moral judgment, and I don't know that I'm the moral arbiter that gets to say what it is. I think the community gets to decide. I think the debate that you're seeing and kind of the concern that your hearing from people is indicative of how the community is feeling about seeing those things. Open source has always been something – To kind of take it to a non-developer level, just like Wikipedia, of like everyone benefits from it. But people try and give back when they can. I wouldn't consider myself a prolific Wikipedia editor, but I've done a few edits. I've created a few pages. I do what I can, and that's what everyone does. Our part of doing the podcast is, "Hey, what can I do to help the community and put things into its?"

So it's a community effort. Like any community, I think people look around and see, "Is everyone trying to do their part?" If you're a bigger player with bigger resources, are you doing more for it or are you taking more than you're giving? I think when people see something they feel is in balanced there, that's when people tend to feel upset.

I have a friend who was a Linux kernel contributor, an early open-source person, far before I was involved in the community. This is back when I just got out of high school, and he was just as true Linux believer. Kudos to him, he's retired now and I'm still working. So, clearly, he did something right. I was talking to he was talking about the change in the open-source community, because he's one of these open-source diehards, and you have some of those people that just like everything should be free for everybody.

I think you're seeing that the community is also growing a little more nuance of like, "Hey, there has to be some business pieces of it." What I think you see is people, there is a little bit of blanching that you have. When people take a look at many of the licenses that were created to really address the challenges of fully packaged distributed software. If you take a look at the GPL, or last least AGPL 2, I believe. You had to contribute back if you were distributing it, if you're selling it. So that made sense in a world where Microsoft and other companies were shipping CDs and disks.

But now we're in a world that are hosted services, and hosted services, you're not considered to be shipping that software. So it's really kind of a loophole, and people created things like AGPL 3 to address that. What you've seen is a lot of fierce debate around things like AGPL 3 as to whether people want to adopt that or not, whether people are going to write their own licenses.

We've seen a few companies do that are really trying to say, "Hey, there's a commercial license if people are going to commercialize and turn these into services," because people do spend a lot of resources to build these things and they're looking to build their companies off of them.

At Google, we do it because it's part of the grander scheme of what we do and what we care about with openness. With some of the smaller startups, this is their business. So if you have a large player just come and take that, build their own version and run with it, you can see how

they might feel a little disgruntled at that. I think that's part of how do people figure out what they do.

We at Google have taken a path of partnership on those things. Even with other projects, we're saying, "Hey, how do we take things," especially a lot of database products. How do we work with the companies that created those to do a revenue share and make their services directly available rather than make something directly competing, call it API compatible and say, "Hey, you can just come use ours."

We think that that's what the market and the community will decide. What do they feel is more appropriate? What do they like? This is a marketplace of ideas and the exciting part is we're watching this play out in real-time. People vote with their dollars to a certain extent.

[00:48:35] JM: Speaking of the marketplace of ideas, one of the ideas that people are shopping for on an increasing basis is service mesh. We're seeing this in continued growth in the service mesh pursuance. Certainly, at this KubeCon, I think it's been a palpable shift over the last couple KubeCons. The desire for these enterprises to actually deploy a service mesh.

Google went after this market with serious fervor with Istio. There was some criticism of Istio in the amount of marketing and evangelism that was put behind that project relative to where it was at when that marketing started.

Now, the sympathetic approach as a journalist covering that subject is this is what Google did with TensorFlow. This is what Google did with Kubernetes arguably. You come out with the product, you express a vision. You see a nascent technology to build off of, like Docker, and you say, "Okay. We want to build off of Docker. Let's do Kubernetes." You say, "We see Envoy. We want to build off of Envoy. Let's do Istio." You lay out the vision and you pursue it with fervor, and the community builds around that fervor, buys into the fervor, buys into the vision, and it becomes a self-fulfilling prophecy. That's the sympathetic vision.

The more cynical vision is this is Google looking at an opportunity for essentially a platform play, because service mesh is going to be this layer where there will be tons of integrations. You can imagine marketplace type opportunities, lots of integration type opportunities, lots of consulting

opportunities built around this layer. If Google can develop the technology, Google will be the company that has the strongest core competency in that technology regardless of the fact that it's open source. Did Google make any mistakes in its launch of Istio?

[00:51:14] AG: Istio was launched not just by Google. One of the things – I know people associate Istio with Google, but it's a collaboration amongst a number of different companies. So IBM is a key partner on that. Lyft obviously with the work they did with Envoy is part of that. So, Istio is not just the Google thing, and I think probably one of the biggest misunderstandings is that this was the Google thing.

As a marketer, I would love to believe that we are as effective as people. We always think that we are. But Google's strategy, if you look at it and say, "Google cares about open source and open technologies." Well, if you're not going to be a proprietary kind of, "I'm going to build my own thing and I'm going to put it out there," kind of vendor, then what you need to do is get partners, build this and then make a bunch of noise in order to build the community around that. Either community kind of moves towards that and starts to build a project forward or it doesn't.

I mean, you can see a lot of open-source projects out there that it's an open-source project that's basically been created by one company and maintained by one company. Yes, it's open source, but it's basically that company's thing. Then there –

[00:52:17] JM: Linkerd, for example.

[00:52:18] AG: That might be one example. I mean, I can give you a dozen others if you like. But if you have one company –

[00:52:23] JM: MongoDB, Elasticsearch, Redis Labs.

[00:52:26] AG: Yes. Yes, plus. So there are a bunch of those out there versus the ones that you see get broad community traction.

[00:52:34] JM: Kubernetes.

[00:52:35] AG: That would be like my key example. I'd say you take something like Kubernetes and you say, "We put it out there. Lots of people got involved in it and that has been a huge success and benefit for the community."

[00:52:46] JM: Undeniably.

[00:52:48] AG: So part of it I think is the difference in understanding what is an open source strategy versus what is a proprietary strategy. If I'm going to go create a proprietary service mesh, whether it'd be just my one that I'm going to do open source, but it's just my company supporting, or I'm going to do one that it's not open source and I'm going to make it just dedicated to say my cloud, for instance. Then that's a different technology. Then you just want to go talk about how great you are and why everybody should use you.

With open source, it's, "Hey, we've built a coalition to put this out there. We think it's great and we want you all to join us in that." So how do you get people back to your question about marketing? It's you have to create awareness. This is out there that people should be a part of it. What's the benefit you can get? How do you become a part of this? That what we hear from customers is, "Hey, we want to see that other people are involved in this. We want to know that this lives on, not just because of the work that your company does, but that there's a community support behind it." So building that coalition is really important to successful open source projects.

So when I look at things like Istio, it's about building that coalition, making sure you've got lots of people contributing and lots of people have stake in the success of this. When you have that, then what you have is a community and something that is enduring, that it's not just a proprietary product. If you look at the most successful open source projects that I can think of, they're the ones that have that broad-based support and community behind them.

So I think those things are really important. The CNCF talks a lot about how they don't pick favorite, that they will have competing pieces and they'll let the community and the market decide. So, how do we help make sure that that's a community piece? If Google wanted to kind of put a thumb on the scale, so to speak, then that's when you don't create open source. That's when you go, make it your own and then just talk about how great it is and try and drive people

to that piece of it. By making it open source, anyone can write stuff using Istio. Indeed, if you walk around the show floor, you're going to find half a dozen companies that have some sort of service mesh or service mesh management product. All of them have Istio lying underneath them. That they're invested in that and they feel comfortable, because, "Hey, this is a community project," that they can go and build additional value to the community on top of that. As they have needs to make things work, they go and they check those in.

Likewise, you see things like what was announced earlier at KubeCon with the service mesh interface and defining generic interfaces. So people can choose what service mesh they want to use, and you don't break things. Because what we want is like from a geek side, I want stuff that works. I want to do cool things, and I want to be able to work on all those.

My joke on our podcast is every new technology is a layer of abstraction. The new thing that comes out, it's always a layer of abstraction. So how do you build those layers so that people can do things and build cool stuff? And service mesh is obviously something that's beneficial. We've had one internal at Google for a long time. How do we go and make that something that other people can benefit from? It's the same thing we had with Borg and Omega and making Kubernetes available. Because we've been doing this for almost a decade, we understand what are the next step challenges.

We don't look and say, "What is someone else doing and how do we go take that?" That's just not a Google philosophy. It's not how we think about it. It's what problems have we solved and we know other people are going to run into as they adapt these technologies, as they scale?" How can we help that happen? Because we believe as we generate things for the community, as we put it out there and as we build those, people will recognize the leadership that Google takes as part of that community and making that happen and decide that they want to make a bet on that. Because when you are choosing a technology vendor, it's maybe for your, "My own little kind of weekend projects that I'm hacking together. I'll pick the JavaScript framework dejure of whatever is how." But if I'm a business, I'm having to build a business, I am not only making a choice on a technology. I'm really kind of like it's almost like a technical marriage. I'm building my stack on this, and if that thing doesn't succeed in the future, if someone your shuts that down, if it goes away, that impacts all of my customers.

So I need to be sure that like I'm picking the right partner in this. Choosing technologies is much more these days about picking partners than about picking technologies. So picking the partner that has the vision that's delivering the right pieces and that's making sure that you can trust that they're doing things with the community, that there's can be broad support that's going to drive that. That's really important to our strategy of openness.

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[00:57:08] JM: DigitalOcean is a simple, developer-friendly cloud platform. DigitalOcean is optimized to make managing and scaling applications easy with an intuitive API, multiple storage options, integrated firewalls, load balancers and more. With predictable pricing and flexible configurations and world-class customer support, you'll get access to all the infrastructure services you need to grow. DigitalOcean is simple. If you don't need the complexity of the complex cloud providers, try out DigitalOcean with their simple interface and their great customer support, plus they've got 2,000+ tutorials to help you stay up-to-date with the latest open source software and languages and frameworks. You can get started on DigitalOcean for free at do.co/sedaily.

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[INTERVIEW CONTINUED]

[00:59:09] JM: Do you know if Google evaluated putting its wood behind the arrow of Linkerd instead of starting its own service mesh from scratch?

[00:59:21] AG: I do not know how they evaluated what pieces they were building and why. I know that Google, like I said, does over a thousand open source projects. Hundreds of them have been created by Google. Many hundreds of them are contributions we've done to other people's open source projects. Google isn't a company that says, "Hey, we only do our own stuff. It's our way or the highway." We've made plenty of check-ins to KVM. We've made check-ins to Lenox Kernel. All sorts of stuff that we've done around SSL. You can go to the opensource.google.com as a whole list of all the different things that Google has done with that.

So, when we look at technology generally, we try and say, "What do we think is the right decision for the long term? In terms of any particular open source piece, I wasn't part of that discussion. So I can't say.

[01:00:05] JM: Very intriguing. You did work at AWS. I love the Amazon culture. I left that company quite quickly, but that was more because I wanted – I had something I wanted to do. I learned a lot from Amazon. What do miss about the Amazon culture?

[01:00:20] AG: Amazon has a very unique culture, and the thing that I think Bezos and Amazon really did a great job and got right, is I think they have a fantastic set of leadership principles, 14 leadership principles.

[01:00:35] JM: I completely agree. It's like the 10 Commandments.

[01:00:40] AG: Yeah, I had a better offer in terms of money from another company and I took the Amazon interview as a whim, basically. My wife, basically, we were looking at relocating and she's like, "Can you look at something local before we go? Can you at least just make me feel better before we have to pick up our lives and move in?" I said, "Sure," and Amazon, very aggressive in recruiting, is always reaching out.

I took the interview and they made me an offer, and the thing that went through my mind when I was deciding was actually, "If those leadership principles are real," like every company has a set of values and leadership principles, and mostly they exist basically as a set of things on a website or a poster on the wall, and that's about as far as it really goes. I said, "If those are real, if the company really lives that, then that's a place for me."

I can say pretty safely that like it's been three years there and they live those principles that there was not a meeting that I had in my three years there where those weren't discussed explicitly. That I think Amazon got really right. They're a great operational company in terms of like moving fast or break things, making evaluations, being focused on business and customer. Amazon, I think, gets that right.

[01:01:54] JM: Plus, there's also peculiarity.

[01:01:56] AG: There is, and they embrace that.

[01:01:58] JM: That's one of the leadership principles, is like peculiar. Isn't it?

[01:02:03] AG: I don't believe that's one anymore.

[01:02:05] JM: I think it is still, but maybe not. I mean, I liked the peculiarity one. I mean, it's explicit. Maybe I could be wrong. You probably know them better than I do.

[01:02:14] AG: They always talk about being peculiar, and I don't think it's one of the 14 right now. But as a geek, an introvert and someone who wasn't always the person that fit in. That spoke to me. I even in my time past Amazon, I've taken those learnings and I have a set of values for my team at Google that's a poster on the wall that is very much inspired by what I learned there and taking the best of what I felt that had to offer as a culture.

The flip-side to that is there's also parts of the culture that weren't really for me. I don't know if you remember the New York Times article that came out –

[01:02:51] JM: Did that resonate with you?

[01:02:52] AG: Yes. I mean, frankly speaking, I saw everything that was in that article personally. I wasn't a source for that article, to be clear. I was not involved in that article anyway, but as a reader sure.

[01:03:02] JM: Sure. Same here.

[01:03:03] AG: But when that came out, I read it and I was like, “Yes, I’ve seen or know about every one of the things that they talk about there,” and I only was in one part of the company. So I can’t speak for the whole company, but it’s the only place I’d ever been where I saw people cry at their desks and people just walked past like it didn’t matter. It’s even a place where I’d seen people cry at their desks at all.

When I left, people were asking – I’ve been there three years, which is a fair amount of time there. They were only 15 people in marketing that had been there longer than I had at that point in AWS. Someone asked me, “Why are you leaving? Why are you going?” My answer was, “Because I don’t have to stay.”

People pay me what I want to earn regardless of where I go, and this isn’t the culture for me now. So, I learned a lot, just like you said you did. When people asked me about going there, I said, “Hey, take a hard look at it. Look through it. Understand what you want to get from it, and if what you get from it matches – Is greater than the cost that it will have on your life on the experience, then great. You should go do it.” I don’t regret my time there. If you were to hit the reset button and I were to go back, I would probably go and do it again. But it’s not the place for me now.

[01:04:15] JM: Do you think Google would benefit from a culture of more people crying at their desks?

[01:04:20] AG: No. Absolutely not. I don’t think that you ever create a better environment by putting people in a situation where they feel bad enough that they’re crying.

[01:04:28] JM: Don’t you think parts of the tech industry become too soft?

[01:04:32] AG: I don’t think so. I mean, it depends who you talk to as to whether things are soft at all, or whether they’re hard. What I think is, I think tech and people do best when they are challenged to do great things and supported in a way that helps them do their best to try and achieve them.

[01:04:47] JM: But as an industry, we have an opportunity. The world that we live in today, we can solve so many of the outstanding problems in the world with the technology that we have at our fingertips. We just need to put the pedal to the metal, put the hammer to the nail, get this stuff done. That is what I loved about Amazon. Amazon embodies that. You get it done. I don't care if you're crying at your desk. don't care if you're working 18 hours on a Sunday. You get it done. Stop your crying. If you don't like it, go do something else. That's what I did. That's what you did. But I'm glad that a place like that exists in the world.

[01:05:35] AG: I guess my perspective is it is different if you choose to do it, than if you feel that you're crapped to do it.

[01:05:42] JM: Sure. Oh! The H1B people that have to do that. That I think is tragic.

[01:05:46] AG: I mean, when I was there, the group that I worked in, 50% of people didn't make it through their first year. If you leave in the first year and you reload, you've got to pay back the reload package.

[01:05:53] JM: Right. Oh, God! That's another one of those trappings.

[01:05:56] AG: You're not getting the stock. They talk about the 401 (k). At least when I was there, your 401 (k) match they offered only vested after three years. After you're there for three years, they gave you all the money backdated. But if you left before then, you'd got nothing into it. So there all these things, and I don't think that – That creates a culture where people are working because they're feeling inspired to do it. They're working because they feel they have to. To me, that's a big difference.

At Google, I still work long hours. I work 60+ hours a week. People always see me there, but I'm doing it because it's my choice to do it. I'm doing it because I'm inspired to do it. There's no like sort of Damocles hanging over me where I feel I have to or I have some financial burden where I'm tied to it. To me, that's the difference. You can get people that work super hard on things and drive away on them.

Craig and I built the Kubernetes Podcast from Google, and that's a 20% project. That's something we cook up in her spare time, like Sunday night where they're putting together notes for the show and we're working odd hours, because he's in the UK and I'm in the U.S., which doesn't make for great time overlaps. We do it because we love it. Is it extra hours? Yes it is, but we're doing it because we care about the community, because we care about podcast, because we get to talk to great people, and that's very different than a boss telling you that you're going to be fired and your review is on the line if you don't spend Saturday in the office cranking through the next piece that you're going to do. So I think that we have great technology as a community. We can build great things, but there are two ways to incentivize people, carrots and sticks, and I prefer carrots.

[01:07:21] JM: Although nobody else at this conference does.

[01:07:26] AG: There is the tie in back to the show [inaudible 01:07:27].

[01:07:29] JM: This has been a great show. One last question, just kind of back to podcasting, I do – I grilled you a little bit, so I want to grill myself a little bit. I do this this podcast, and it provides me with a business partially because companies pay me to make content or to air podcast ads, and as somebody who's watching – You're a big fan of podcast. You're watching the podcast ecosystem closely. You mentioned the kind of the bonus subscription model. There are some broadcasters who opt out of advertising and they use the patreon model. Their claim is that by removing advertisers, they are subtracting bias in their dialogues, in their interviews, in their reporting.

Do you think that's – Is that where we need to go to get strong journalistic integrity? Do you think I'm hemmed in? Do you think a marketing-based podcast or media channel is inherently hymned in to a stronger extent than a subscription-based podcast, or is it such that we all have our agendas? We all have our political games that we are playing, and having – And this is what I genuinely believe. Having a sponsor or two only marginally increases your degree of bias.

[01:09:16] AG: I think that depends on the outlet. We have the good fortune of we don't have to take sponsorships on ours. So we feel no obligation, and there are some on kind of the hard line of journalism that will say, "Hey, you have to have a clear firewall between those things."

But I think you can look at plenty of press outlets that are out there and you have the people that sell ads in the newspaper or on the website and you have the people who do the journalism and those things. I think people have come to terms that you can separate those two. I think it's easier when it's different people.

My question to you is do you feel that you could do it? Let's take it hypothetical, and let's say that I sponsored your show every week for the past two years, that we were funding your life and your lifestyle. Do you feel that you could credibly like be critical of work that my organization did or would you be worried, "Hey, if I'm critical of it, they might pull that funding."

We've seen sponsors do this. I mean, there's been boycotts of media outlets, usually TV is the ones you hear about more than podcasting, just because it's not as big. But you've seen people do media boycotts of organizations when they don't like what they've done or feel that they've done something outside of either what their viewers like or what their sponsors like.

I think the question to you, can you really separate those two? What would happen in a situation where one of your sponsors didn't like what you said or maybe it's even more subtle? Let's say that if I'm sponsoring you or someone is sponsoring you consistently. Do you pull your punches a little? Do you not ask hard questions? Do you just choose other topics? Do you steer clear of things that might put them in a bad light because you don't want to poop where you eat, as the old saying goes?

[01:10:57] JM: I mean, I think it's true. I think I would find other things to be critical of. I would find other things to raise questions about so that I would insulate myself to some degree from criticism from the listenership. But it's true. I mean, it makes me observe like the truths about incentives of human incentives even in myself. It kind of makes me want to go. It kind of makes me want to go more towards a subscription model, because I feel myself doing that. I'm like, "Man! I've built this business. Please, don't make me go back to Amazon. Please, for God's sake. Don't make me go back to Amazon. I will do whatever it takes."

I will sell your piece of crap technology to my listeners. Not yours, Google. Google makes good technology. But –

[01:11:45] AG: I think you're talking the generic here.

[01:11:47] JM: I'm saying generically, I don't want to have to go back to doing that. But if I could choose, and I will choose eventually, I think I would go towards the subscription model. Yeah, anyway. I don't know. It's a moving target, but it's interesting media landscape.

[01:12:03] AG: Yeah. I mean, I think some of the question is, what matters to you most? You can see – I mean, media isn't the only place this plays out. It's okay, but I'm a big fan of mobile games, and you see this in the mobile game ecosystem, that it comes down to is what is your goal in life? I tend to look at it and say like – Basically, my station like this kind of my station in life, unless something really, really incredible happens or really, really terrible happens, like I'm never going to be super rich. I'm never going to be super poor.

So do the things that you care about in society. Do the stuff that you want to do. Do the things that your kids and your family would be proud of. That's kind of the way that I view it. But there is a perfectly valid view that people have of like, "Hey, what I need is I need more money." That I don't want to put in a subscription block, because if I do that, I'm going to lose a certain percentage of listeners that aren't willing to pay for content and are willing to deal with listening to advertisements. Every one chooses what's right for them for their particular outlet.

But the media industry in general has been challenged by this question. I think you're not alone in it. You're just someone who has to make that call, the same as anyone else. I give you kudos for being aware of that and being willing to engage in the debate around what is that mean for the questions that you asked the way that you approach it.

[01:13:25] JM: Well, hey, it might be more profitable also. I think in a limit it will be.

[01:13:31] AG: If you take a look, the news outlets that do charge for so and so. Put things behind pay walls, whatever. As people feel more and more bias and feel they're –

[01:13:40] JM: Ben Thompson. You're a Ben Thompson listener. That guy's got the easiest business model even, and he makes killing.

[01:13:46] AG: Sure. If you make good content and put things behind it, but people will pay for good content. I think that is unquestionably — I mean, Netflix is based on that. But even from a news standpoint, when you take a look at things like the Wall Street Journal, the hallowed establishments, or even in the podcasting world, if you take a look at the Patreon model. It's not like I'm hiding behind a wall, but I'm simply asking people. Sam Harris does that. He also has a big branded name, but his podcast is about helping that name go out there.

[01:14:12] JM: So I was thinking about, I'm glad you're listening to him or you are aware of him at least.

[01:14:16] AG: No. I'm a subscriber of his.

[01:14:18] JM: Really? Okay, a paid subscriber.

[01:14:18] AG: I am. He gets money from me every month. I think he does tremendous podcasts. I may not always agree with what he says, but part — I don't fund things just because I want to hear my own opinions. I fund them because I think he's doing interesting stuff having really interesting interviews, talking to people that spark ideas in my mind that I hear things, and they sometimes challenge my perspective. I want to hear that active debate. I want to hear those interesting things, and I'm willing to pay for it.

[01:14:46] JM: I think he takes his arguments too far, because he's like, "I'm not even going to let Audible support me." I'm like, "Come on, man! It's Audible."

[01:14:52] AG: He is taking an extreme stance, which is not surprising —

[01:14:55] JM: But he has his own app that he promotes. He's got a meditation apps he promotes. I'm like, "Cool. Now, you're a big meditation. Now, you're encouragement meditation. You're encouraging live events." But I guess it's his stuff.

[01:15:09] AG: I mean, at the risk of defending him, but I'll defend the model and not necessarily him, is that what he's promoting is himself and his things. If you like what he does,

you can come see his event live. Lots of NPR shows do that too, “Hey, if you like our NPR show, we’re doing a live show in,” and they’re touring around the country. That’s different, because do you want to support them? Do you want to see them? But is not tied to a sponsor. It’s not tied to a particular piece. It’s saying, “Hey, if you like what I do, here’s an additional way to give me money,” and not just asking for a handout, “Hey, I want money,” but here’s a different way that you can engage where you can get a different experience and you might value from that.

We just did our first live show, and of course we don’t charge for that. It’s free that we –

[01:15:48] JM: How was it?

[01:15:49] AG: It was a lot of fun. It was great to have an audience there and you have an energy when you have an audience that’s different than like you and I sitting across the table with microphones.

[01:15:59] JM: Did you do it within Google or did you –

[01:16:01] AG: We did it at Next. We’re talking to the CNCF and see if we could do one here, but we’ve not been able to figure that out yet. But we’d love to. But we did it there. Actually, we did it both there and from Seattle. I was in Seattle, because it turned out my wife went into labor that day.

[01:16:15] JM: Congratulations.

[01:16:16] AG: I was actually beamed in remotely.

[01:16:18] JM: That’s hilarious.

[01:16:20] AG: I mean, I think there are ways to do those things. I also think that there’s interesting things people do with crossover episodes between – It’s how much do you want to build an ecosystem? The same way that –

[01:16:28] JM: It’s kind of what this is.

[01:16:30] AG: Yeah. The same with that I love technology and cognitive stuff. I love podcasting. If you want to talk about the Kubernetes stuff sometime, we should chat about having you on.

[01:16:38] JM: Certainly be open to it. Well, Adam, this has been really fun. I love your podcast. I listen to it a bunch when I was preparing for the show, preparing for KubeCon. So it's very holistic view into the Kubernetes world. Very well-informed, and thanks for coming on Software Engineering Daily .

[01:16:55] AG: Thank you so much, Jeff. Great to be here.

[END OF INTERVIEW]

[01:17:01] JM: GoCD a continuous delivery tool created by ThoughtWorks. It's open source. It's free to use, and GoCD has all the features that you need for continuous delivery. You can model your deployment pipelines without installing any plugins. You can use the value stream map to visualize your end-to-end workflow, and if you use Kubernetes, GoCD is a natural fit to add continuous delivery to your cloud native project. With GoCD on Kubernetes, you define your build workflow. You let GoCD provision and scale your infrastructure on-the-fly, and GoCD agents use Kubernetes to scale as needed. Check out gocd.org/sedaily and learn how you can get started.

GoCD was built with the learnings of the ThoughtWorks engineering team, and they have talked in such detail about building the product in previous episodes of Software Engineering Daily. ThoughtWorks was very early to the continuous delivery trend and they know about continuous delivery as much as almost anybody in the industry.

It's great to always see continued progress on GoCD with new features like Kubernetes integrations so you know that you're investing in a continuous delivery tool that is built for the long-term. You can check it out yourself at gocd.org/sedaily.

[END]