

Transcript of What Matters Episode 32: Creating a DevOps Culture with Angel Rivera

Voiceover:

Welcome to What Matters, a podcast from the folks that matter most, we'll be discussing ChatOps, open source, DevOps, and everything that matters most to you. Let's see what we're chatting about this episode.

PJ Hagerty:

Hey everybody and welcome to What Matters, a podcast from folks here at Mattermost, I'm PJ, your host as always. For this episode, I'd like to introduce you to my friend, Angel Rivera of CircleCI. Angel, tell us a little bit about yourself and what you do.

Angel Rivera:

Yeah. Hi, thanks PJ. Glad to be here. So my name is Angel Rivera, I'm, I guess, I got promoted recently, so principal developer advocate yeah, for CircleCI. And as the principal developer advocate for CircleCI, I basically am charged with going out into the community and essentially, just creating these organic connections with our community, right. So what I primarily focus on is how the community is using technology, some of the good points to the projects that they're doing or the way they're using technology. But I'm more interested in the pain points, to figuring out, what are the common patterns and problems people have implementing new technologies or concepts like continuous delivery or DevOps, right? Whatever it is that the industry's using or implementing and having troubles with, that really intrigues me.

Angel Rivera:

But it's also cool to see the innovative things people are doing right out there as well. So I get the best of both worlds, but a lot of it has to do with basically me being a representative of CircleCI and essentially, they pay me to communicate right with the developers. So I'm almost 30 years veteran of this business and I've done it for a very long time across many different verticals, military, civilian in the US government and within those government agencies, I worked from defense all the way through civilian agencies, like Department of Labor. So I have a nice knowledge of how all the government and agencies work and then I also have lots of experience in the private sector and startup land as well.

Angel Rivera:

Yeah, so I use those technical skills to, I can talk the talk, walk the walk with the engineers, and I can also speak to the internals of the company, right, so the stakeholders that actually kind of supervise me or pay my bills. So, yeah, it's a nice gig to be able to leverage all that, all those years of experience in learning new things, but more importantly, helping other folks through some of their struggles, right? As a developer-relations person, I don't want to say most companies, but a lot of companies get it wrong, they expect these roles to be more of a marketing sales and that's not the case, where we should be more of a steward for the company in like legitimately going out and trying to help them.

Angel Rivera:

Because at the end of the day, making those connections, especially for like a platform like CircleCI, it's very developer-centric focused. You need folks that can go out there, credibly talk to the industry, or actually the community and lend hand, right? And then what we do, is bring all that data back from our experiences and our conversations and talk to our product teams to build features and solutions that actually solve the problems people actually have. Instead of just building things that we think are cool, or maybe, because if you're not in the community, if you're not inside of the heads of these folks and having conversations with them, the company itself will never know what actual problems we need to solve.

PJ Hagerty:

Right. It's like, if you don't participate in a community, you're just working in a black box going, "Oh, Hey, I think I'll build this feature, or this seems like a problem that we need to go after and solve." It's like, nobody has that problem, maybe you listen to people and see what their actual problems are right on. You've been involved in the DevOps space for a pretty long time, why is proper tooling, such an important piece to DevOps? It seems like, when I was a developer, my IDE was up to me and whether I was Mac, or Windows, wasn't so important as long as I could deliver the code. But it seems like in DevOps, the tools you use are actually the keys to you being successful, why do you think that is?

Angel Rivera:

Oh, wow. Yeah. There's a lot there, the reason why is, I'm a firm believer in DevOps as a concept first, right? So you and I have had many conversations about the industry-

PJ Hagerty:

Yes we have.

Angel Rivera:

Marketing, buzzwords, they're all well and good, we have to live in this world and that's part of it. But I think the biggest problem people have with DevOps, is understanding what it really is, or what it's intended to be.

PJ Hagerty:

Right. The practical application of it.

Angel Rivera:

Yes. I'm just going to say it's about your culture, so like every organization is different, well, let's start with the individuals within your organizations. They are all different, they are solo human beings, they have their own quirks, unique traits, whatever, but that's the reality of things. And the biggest problem in the industry with the term DevOps that I have is, folks don't really understand it's about culture building, so taking those individuals into consideration, the personalities, the way they work, and then being able to orchestrate those personalities within the team, that's super important. So if you're kind of leading the charge in your team, you should be able to figure out like, how people work and respond to each other. And once you have that down, I think that's when you start your DevOps journey, right?

Angel Rivera:

You have to kind of build a sort of consensus, no one's ever going to be like, always kumbaya and I've been on teams where we had that and it was cool, but most of the time it's going to be, first figuring out your humans and then figuring out how you can all work together. And once you have some internal understandings, communication is key, things like that and build a culture of like, "There is no blame here, let's, if one fails, we all fail kind of situation," then I think you can start actually looking at DevOps. Because once you have that interaction, it's working, your developers are actually functioning very well together, they're semi-friendly with the ops team, because those in DevOps already think, "Oh no, it's developers doing operations and operations doing development work" that's not nice.

PJ Hagerty:

No, no, no, no.

Angel Rivera:

Yeah, you will always have that difference because that's just the nature of the roles, like people's talents or yeah. Some people are-

PJ Hagerty:

Well, it's like you said, you're hoping to have that lovely come to Jesus kumbaya moment where everybody's like, "Oh, the team works together and everybody's together, this is great." But that's also like, you can't be like, "All right, so we got to that point now, let's only focus on tools and stuff and start getting the job," it's like, no, that requires a maintenance unto itself. You can automate a lot of stuff in DevOps, you can never automate like the communication relationship part of it.

Angel Rivera:

Right. Well, I mean like, so to answer your question about the tooling, right? So proper tooling that's... Long story short, before you even think about tools, this is just one of the things I wanted to get out there, so start thinking about you're humans, how your processes are actually working. And the reason I say this is, I get asked all the time like, "Hey, I'm on Jenkins or some other tool, but I switched to CircleCI and our release cycles are still like the same, they haven't shortened at all," whatever. They're trying to release a process in place to shorten that release time for their software changes.

Angel Rivera:

And I, at that point, that's a red flag, I've heard this so many times, I start asking about the culture, the cultural problems like, "So how are you developing the software? How are you getting the feedback, what does that look like? If there's a problem, how do you handle these failures?" And then they start talking to me about how they don't even have processes to handle, everyone's just kind of siloed. And then some release, I guess, release managers, what they call it is like, checking all the work before it gets-

PJ Hagerty:

Yeah. And then sending it out.

Angel Rivera:

Proceed. So I'm like, well, that's a problem that you have, it's a cultural problem, not a tool problem. At the end of the day, without you fixing those cultural problems, you're going to have the same problems, even in any tool, doesn't matter, Jenkins, CircleCI or whatever, GitHub Actions, if you don't have those cultural problems nailed down in respect to your DevOps, implementation or adoption, then you're going to realize real quick like, "Wow, there's a different problem, not the tool."

Angel Rivera:

I always tell folks like, "You can go ahead and jump in and pick a tool" that's fine, pick whatever you like, but while you're investigating these tools or at least using these tools, make sure that your processes are matching up with your pipelines because that's the biggest problem, your SDLCs should reflect, or your plan should reflect the elements within your SDLCs and automate those bits that fit your software practices. So every company is different, every organization team is different, so that's why like, DevOps is very dynamic. It has to be dynamic because it has to fit specific teams and then you match the tooling to your processes. That's how I like to tell people.

PJ Hagerty:

Yeah. It seems like you're saying, some of the people you've talked to, and I know some of the people I've talked to, so I'm sure you experience the same thing, kind of have that feeling, it's like, well, parents aren't talking to each other, so what are we going to do? We're going to bring in a tool, is going to figure, "The reason why we can't communicate with ops right now is because we don't have CircleCI, so let's just sub CircleCI on there and that'll solve the problem." Well, no, that's not going to solve your problem because your problem is, the people are communicating, it might be that, maybe Mattermost could help you because you'll communicate at least. But the problem is, you're not communicating, kind of get back to what you were talking about with your job as principal developer advocate, your job is to go out there and communicate and participate.

PJ Hagerty:

You kind of have to have the same thing internally for a DevOps team to be successful. People need to communicate and they need to participate, they need to be able to give that feedback and share like, "Hey, yes, I'd love to use a tool like CircleCI, but I find that when we're giving this off to QA, they're not getting back rapidly enough and therefore, I actually can't get it into the pipeline." The second part of that state mean it's a lot more important than the first part.

Angel Rivera:

Yeah. For sure, I can't stress enough, get your culture straight before you even try to tackle anything because, and what I mean by that is, like I said, there're individuals, right and most people want to contribute, be equal partners in a team. I mean, yeah, you have the showboats and the primadonnas here and there, but even those folks are still willing to kind of work with everyone. And one of the major things, I think, the industry's kind of... I'm starting to see ramblings of this and examples of this and conversations, just have a space for folks or an environment for folks to own things and not necessarily be told what to do.

Angel Rivera:

If everyone has some skin in the game and they feel like their decisions, or they're able to make decisions without being penalized for mistakes, so build a culture of where failure is actually expected and you learn from that, that's the main thing. I think the easiest and biggest thing you could hit with a culture change, is that, right? Let's stop blaming this one and that one, let's take, one fails, we all fail and let's learn from these failures, expect the failure, embrace that shit because that's

how software gets better and things get better, we learn from that and embrace it. But once you have that culture where folks are comfortable and that's, it's all about trust, they have to trust that they're not going to be penalized or-

PJ Hagerty:

Or pushed back on.

Angel Rivera:

Retribution, yeah, for their mistakes or their ideas. Because once you knock all those intimidation barriers, man, I tell you, it's amazing that things that a small team that's like humming along the things they can accomplish, it's pretty amazing.

PJ Hagerty:

Exactly. What do you think of the idea of people publishing their film? I know it was a big deal when cloud outages started to happen and companies like GitHub started to publicly say like, "Listen, here's what happened, here's the outage, here's how we took care of it." But do you think that it would benefit DevOps teams be like, "Hey, so we tried to start our DevOps journey, here's every pain point that we hit along the way, here's how we fixed it," do you think that it would benefit people to see that kind of content out in that world?

Angel Rivera:

Yes. I'm a big fan of that because think about it, man, like you can't hide the sun with your hand, if there's an outage on GitHub, you know there was bad shit going down somewhere. And I think it's actually a duty for all these tech companies to be doing this kind of stuff because it only educates the folks who are coming up in industry, like the small organizations that are growing and who want to be like the Googles, Facebooks, GitHubs, whatever, there's a couple reason why you should do it, just because I think it's good and incredible for your company and your team. Most people on those teams, we know a few people that work at those companies, these are solid, like geniuses in my mind, some of them and yeah, they're all about transparency. I think being transparent just brings that credibility to your company, to your teams and endears people to your business because like, yeah, you're being super honest about what happened.

Angel Rivera:

And I personally enjoy that more than having to read about a security breach and how it was handled badly for like a year and a half and it had my credit information, if that makes me want to go ask through that company. But if the company says, "Hey, this is what's going on, this is what happened, this is why, this is how we're mitigating" and keeps you in the loop on that, I think you kind of stay a little loyal to that because you feel like, "You know what? They're telling me everything they can tell me."

PJ Hagerty:

Right. And there's also the kind of the nice gracious, I can learn from this, or we can learn from this mistake that if somebody made, so I don't make that mistake down the road. And I think that's the part, there's like open sourcing, like knowledge open source, not just open source stuff, but like, you're open sourcing your experience, the people could be like, "All right, listen, I saw that CircleCI did this thing and they screwed up our build and people's pipelines didn't run." Oh, that's rough, but they were open about it and said, "This is what they did, so we know what to do if that ever happens again and we know we shouldn't use Bob's four day DevOps program as a way to train new employees because that's what they did and that's where the mistake got made." I don't know, there's no such thing as Bob's four day DevOps program, I just made that up.

Angel Rivera:

Actually, I think there is, but I'm just kidding.

PJ Hagerty:

I would, Sam's 24 hours of DevOps.

Angel Rivera:

It's a blog post on like dev tools or something.

PJ Hagerty:

Probably. Yeah. A two-minute read Medium article to cert you're on DevOps. Well, I think that's an interesting thing to try kind of transition to like, DevOps has been around for a while, it's been like 15 years. I want to say like 15 years now since like the initial meeting that they were like that we're going to call it DevOps, this is what it's going to be like and Patrick Debois and Andrew Clay Shafer were like, "This is our whole plan," but at the same time, especially with bigger companies, they're just discovering this now. I know that back in 2016, I was at a company that had just discovered Agile and they're a fairly large company, I'm not going to say their name, but they just been like, "Have you heard about this Agile?" I was like, "The thing from another 1990s, the Agile manifesto thing?"

Angel Rivera:

Late 1980s, sorry.

PJ Hagerty:

They're like, "Yeah, we just found out about this" and I'm like, "Hmm, okay, that's interesting." And I feel like some companies are just discovering DevOps now, do you think that there's a heyday or do you think it's still like an uphill climb for people to get that DevOps is a cultural concept, not a set of tools that you use to apply as a bandaid to your problems.

Angel Rivera:

Yeah, I think the fact that you just said, it was 2016 and this company kind of said, "Oh yeah, we just discovered this Agile thing, if you look me, if you ask me, I contribute that too, the industry is changing. So yeah, all right, it took them, I don't know, let's say 16 years to come around to knowing about this or at least looking at it. And I think that there's a couple reasons for that, I experienced this as a young developer operator, whatever, back in the day you had some of the OG tech guys, right? These guys are like hardcore, so they had their whole methodology for doing things and they were not open right to change for a couple reasons, job security, they kept all that knowledge inside so that they were the people to lean on when you needed things done.

PJ Hagerty:

They were the heroes?

Angel Rivera:

They were the heroes, but some of them were just stubborn, it's okay, it's like the territory. And I mean the people in the industry are changing, that's generational, I think, since we're now, when I was in, there was only like maybe two generations of tech when I started, now we have how many? Like five generations and it's just growing. And the way that I learned that you learned probably back in the day, is not the way no the newer generation is learning. So that's one of the things that I keep my mind on across the board, when I'm looking at DevOps and how people kind of bring things up, I look at like, okay, so, and it's probably a bad way to look at things, but I segment people into generations and a lot of times, it's the conversations that I have like with you, we talk about, oh, back in the day and then I talked to some of the younger-

PJ Hagerty:

Remember when we just coded an HTML and CSS, those were the days.

Angel Rivera:

Yeah. But at the end of the day, that's the aspect or yeah, that's where my mindset is, it's like, "All right, these are generational." And then I hear people get frustrated with the newer generation, I'm like, "Look, you had to crack, we had to crack open books and we had to get our hands dirty, there's a whole new way of learning, you have YouTube, you have TikTok, you have Twitter, you have all kinds of new medium, which is great, but we're not used to that." So that's the disconnect and at least for me, I try to keep an open mind, I think, as a developer relations person, I need to be able to talk to all of those folks. But getting back to like the companies, for me, that's a change, I like to see. Yeah. It's a little late in the game, but at least it's changing.

Angel Rivera:

And I think, again, it's the generations, right? So the OG, knuckleheads that don't want to make change, they're actually retiring or they're just through attrition, they're dropping off. And now you have like, I guess, us, myself, yourself, and some

other folks in our kind of generation that are open to change, we've always been open to change, we've always been open to innovate. And I think that's changing and the company management is also changing, but there's also been a lot of realizations in technology. So we're becoming more efficient, we want to get things done, we want to work with the business people. Before, remember it was like, "I'm a developer, why am I in this stupid requirements?"

PJ Hagerty:

Go dirty my hands with your money things.

Angel Rivera:

Yeah, exactly. But now, the developers and operations teams, all the tech teams are becoming more and more aware that, "Hey, you know what? This is how I put food on my table is by working with the business people right to release features that people need." So there're just changes in software, but with DevOps, I think it's going to happen the same way. The culture piece, once that gets kind of settled and I think there's going to be a big boom in consultations, like people coming out, or going out and doing a training, you had an Agile, was it dojo and coaches and stuff like that, right.

PJ Hagerty:

Yeah. I remember that.

Angel Rivera:

You're going to see a lot more of that coming in the future.

PJ Hagerty:

DevOps certification and DevOps coaching. Yeah.

Angel Rivera:

Yeah, exactly. So I think, yeah, people are already trying to start to do things like that. I've seen something the other day, it was like Agile scaled DevOps, I don't know something, I didn't even read it, but it sounded interesting, maybe there's something there. So I have to look into that, but it was just a quick headline I saw somewhere, I didn't really get a chance to read it, but people are actually thinking about this and I think that's going to help. But the key to it is the people, man, I mean, I can't stress this enough, you're only going to get faster and you're going to get more consistent and more reliable if the focus is around your people.

PJ Hagerty:

Right on. Yeah, I agree.

Angel Rivera:

Humans are writing the code at this point in time, now when the machines take over, that might be a different story.

PJ Hagerty:

Well, we could speculate about that different.

Angel Rivera:

Yeah, but right now we're dealing with humans though.

PJ Hagerty:

Right. Well, I mean, this is something that I've always said, and I think you've heard me say is, all this technology that we build is greatness, whatever, but the whole point of technology is to make our human life easier. It's humans building things to make easier for other humans, so if we continue to focus on that, I think DevOps can be more, I think anything could be more successful, if you think about, it's not, we don't build things to make more money because more money does not translate to an easier way of life. But we built cars because people needed to get further places in shorter amounts of times,

or they need to get a bunch of supplies in shorter amount and we could get into the whole argument of how we've built machines that are more destructive than anything else, but this is not that place.

Angel Rivera:

Yeah. We're talking DevOps.

PJ Hagerty:

That's after the podcast. But where do you think like the innovations in DevOps are? Do you think that it's really like, as we build better communications, a lot of which came out of being in a pandemic and being like, "All right, all of our teams need to communicate, we have no way to get them all in the same room, how do we do that?" Or do you think the innovation comes from just like new and more inventive ways to deploy, to build tooling, to do things? I mean, it seems like some people are like, "Great, we've got Kubernetes, that's the end, we don't need anything else," but where do you think the innovation's coming from these days?

Angel Rivera:

Yeah. The innovation's definitely going to be in humans, we already kind of covered that, but I still focus, that's the forefront. The next evolution or innovation I think is definitely going to be in the automation space, so being able to pawn like repetitive time-consuming tasks off to automation is the goal, that's how you're going to get faster. And the reason you're going to get faster is, you won't have to test your changes every time, you just pawn that off to something, then you can kind of forget about it, so I call it happy path, right? So if everything's clean and green, you don't think about those code changes anymore, but if you get a flag, a failure, whatever, then it's easier to context, which if your automation is performing all the testing validation, you need in a 10 minute period.

Angel Rivera:

So the innovations are going to be around being more efficient as a human, as a developer, while leveraging automation. So that's going to be key in the automation bit, in the DevOps space, I think in any space really, but specifically in DevOps is going to be around just being able to offload those redundant time-consuming tasks, because what you're looking for again, is consistency, reliability. And once you have those two things, you gain efficiencies, that's always been my thing. So yeah, the innovations are going to be in there, I don't think the tooling is going to matter in the sense, what I mean by that is, with DevOps, the next innovation will be around including other people, other roles inside the practice of developing software. What I mean by that is, release, let's talk about release and deploy, those are two different things.

Angel Rivera:

A release is a business function, so you get this product or feature changes right out to the world, to your customers. That whole process, it's bigger than a DevOps process, or whatever, or even software development life cycle, those are the tools, DevOps, SDLC, software development are the tools to get those products created and then distributed. And then once they're distributed, your tech teams are pretty much out of the picture at that point, you have actual release managers, business stakeholders actually monitoring those services. So the tech teams, yeah, we're still responsible for making sure technically, these things are up and running, but we're not the subject matter expert on the actual data. The data is separate and that's one of the other things I think is going to happen as far as like in the DevOps space, we're going to actually respect data for what it is.

Angel Rivera:

It's the gold within the tech industry and a lot of developers and operators, for me, they don't really see it that way, they just worry about their little application that does something, creates data or whatever, but at the end of the day, the goal mine is in that data that we have, and I've always complained about this. My entire career is like, the focus is so lopsided, I don't know, maybe it's the companies that develop the tools that we use that keeps us focused. I feel like the big box companies that build these awesome tools, they keep us focused on the minutia of like trying to build an app that will handle the data, but if you look at it, what are we actually doing, we're producing data. And that is-

PJ Hagerty:

And there's so much information that we haven't even touched.

Angel Rivera:

Yeah, we haven't even scratched the surface of the value of that. I'm sure there're definitely organizations, I won't name them because it's going to be fair,

PJ Hagerty:

Perhaps I could [inaudible 00:30:09] some of those organizations.

Angel Rivera:

Yeah. But they're figuring it out, or they've already figured out. It's data, data, data, data, data, but yeah, I think the industry, you're going to see data rich, I've already started seeing like data pipelines, companies are toting or touting product solutions for data pipelines and whatever, the people that I know of myself even here, are pipeline, I'm like, "All right, how does this?" Right away, I can make that connection into an automated, like continuous delivery system or something like that. But yeah, I think there's going to be huge changes in how automation or innovations in automation, how they're leveraged and it's pretty exciting. I think, especially like with CircleCI, we're doing some pretty cool stuff that's addressing some of the things I talked about, like the release management bit. I don't know what your experience is, but most tech people that are actually building software, don't really care about that release process, all they care about is, or to them, the word release means, "Hey my changes are going to get distributed" and that's actually the definition, but I think there's more to that.

PJ Hagerty:

There's more nuance. Yeah.

Angel Rivera:

Yeah. A deployment is kind of like, a developer views a deployment as a release, but that's not the case, a deployment is just the function of distributing those changes and that's where I think the tech teams just stop thinking about that stuff. It's been released, we're done, they're actually probably been working on the new stuff, the next phase of changes when that stuff gets released, they don't even really know. And honestly, should they really care?

PJ Hagerty:

Why should they care? Yeah.

Angel Rivera:

Yeah. If there're no bugs, then gives a shit, I'm going to innovate. I'm going to focus on the stuff that matters and that's where, the automation will bring a lot of change as well as, the automation should take a lot of load off, like the crap work that we don't like to do. I like testing my changes, but I don't like to do it over and over. I like to just hand it off and then, "Hey, let me know when there's an exception, there's a failure," that's what I like because I can just keep rolling onto the next task in the sprint and move on. Let's build some cool stuff.

PJ Hagerty:

Right. That's that's what you want to do? You want to focus on building more cool stuff not focus on all the day-to-day, little minute details of things. Angel is been awesome, what else do you got going on? Are you going any conferences? Where can they find you online?

Angel Rivera:

Oh, yeah. So I'm going to be doing actually quite a bit of traveling, be hitting some conference in the elite [inaudible 00:33:08] in New York. I'll be at [inaudible 00:33:11] in Valencia, Spain, so if anybody wants to join me there. Yeah, now you can hit me up on Twitter, my handle is @punkdata, so if you want to reach out, I'm always open to conversations. Yeah, this is fun, man, I had a great time.

PJ Hagerty:

Oh, I'm glad you joined us. Thanks so much for coming on, I'm hoping that I could bring you back and we could talk more. I mean maybe if someone wants to sponsor me going to Valencia for [inaudible 00:33:39], I'll re-interview Angel live in Valencia, Spain, but yeah, seriously, thank thanks for coming and hanging out. For those folks who are listening, we look

forward to bringing you many future episodes of this podcast, keep listening and feel free to get in touch at communitya@mattermost.com with your questions, comments, or episode, and guest ideas. You can always find me at PJ.Hagerty on the community server community.mattermost.com, let us know what you think matters most.

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