Transcript for [What Matters, Episode 25: Musings and Motivation with Zef Hemel](#)

Voiceover:

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

PJ Hagerty:

Hey, everybody. Welcome to What Matters, a podcast from the folks here at Mattermost. I'm PJ, your host as always. Before we get started, let's get the open source news from Ben Lloyd Pearson.

Ben Lloyd Pearson:

Thanks, PJ. So, the first story I've got for you today is that GitHub is now offering free legal support to open source developers. So, like any other company that hosts user-generated content on the internet, GitHub has been no stranger to the challenge posed by the copyright takedown process in the Digital Millennium Copyright Act or DMCA. Notably, YouTube DL was a controversial project that was removed from the platform last year, over a dispute related to Section 1201 of the DMCA. And Section 1201 prohibits the distribution of code that is designed to bypass copyright restrictions. So, the argument was that YouTube DL was being used to download copyrighted material from the web.

Ben Lloyd Pearson:

However, after review, GitHub ultimately decided with the project creators and it was ultimately restored to the platform. As a response to this, GitHub has now announced a new program to offer free legal support to open source developers who face Section 1201 legal disputes over code that is hosted on GitHub. They've partnered with the Stanford Law School Juelsgaard Intellectual Property and Innovation Clinic, which is quite the mouthful and they've committed a $1 million Defense Fund to support the effort. GitHub's goal with this is to help open source developers protect their community while also growing legal expertise around open source software.

PJ Hagerty:

It's interesting, because I feel like this is kind of a microcosmic look at how open source should work. GitHub says, "Oh, well, we have this problem. Our best way to service this problem is to actually service the community and share what we learned and get it out there." So, it's interesting to see kind of the open source ethos applied to what's essentially a legal issue. They're providing free legal support, in the same way that we provide free messaging support and the ability to build on that.

PJ Hagerty:

I'm sure they're going to learn a lot with this. Not that just what they've already learned from the lawsuit, but learn a lot as people use it to see how best to service the community with this. That's what I'm hoping for.

Ben Lloyd Pearson:

Yeah. And as someone who has been involved with a lot of open source projects, I can tell you one of the last things developers ever want to deal with is a legal stuff. Just even putting a license on a project is asking quite a lot of developers sometimes.

PJ Hagerty:

Right. And I think there's a lot of a kind of Dunning-Kruger type reactions by developers. Developers are not legal experts. No matter how deep and licensed you get, you're not a legal expert. And sometimes, you actually do need a lawyer to actually go ahead and go over that and figure things out. We just agree to things. MIT, that seems good for me.

Ben Lloyd Pearson:

So, cool. And I've got quite a few new projects to talk about this week. The first one is, I believe, it's pronounced Pyrrha. I could be mispronouncing that. But this is a new platform that provides real-time information to firefighters for smoke and toxin inhalation. This was a joint effort between the Linux Foundation, IBM and a company named Prometeo, to help firefighters worldwide who are fighting wildfires. So, it's kind of a grim topic, but it is something that is extraordinarily relevant

now, especially considering just the scope of wildfires we're seeing across the planet, from Siberia to the West Coast to Greece and other parts of Europe. So, it's a very timely project for sure.

PJ Hagerty:

Yeah, it's great to see a project that's really working on a real-world problem. It's great that we build apps and we help people to do things. But it's great to see someone really attacking an issue that affects people in a very real visceral way.

Ben Lloyd Pearson:

And got a few more projects and I'm just going to kind of rapid-fire them because there's so many that have come out in the last couple of weeks. The first is one called Genalog. This is a new Python package from Microsoft that generates document images with synthetic noise that mimics a scanned document. So, they didn't actually go into too much detail about what this project is, but presumably, it's for machine learning. You can generate these fake documents and then train machine learning models on them, but I'm not entirely sure.

Ben Lloyd Pearson:

The next project is one called Winterfell, and this is a library to generate cryptographic proofs of computational integrity. This was released by Facebook and it's a way for, if you complete a complex calculation, you can prove that you have completed that calculation without forcing anyone else to do it themselves.

PJ Hagerty:

Interesting.

Ben Lloyd Pearson:

The next project is one called Package Hunter. This is a tool that identifies malicious dependencies in your codebase via runtime monitoring. It's now a part of GitLab. Facebook has also released another project called Droidlet, which is a platform to build robots that use natural language processing and computer vision to interact with the physical world. So there's actually kind of two portions of this. There's the natural language, you can tell a robot to do something using normal human language and then it uses computer vision to actually figure out what that language is referring to around in the physical world.

Ben Lloyd Pearson:

And then the last one is pretty odd and unique. It's called Orbiter. And it's a real-time spaceflight simulator. So, this has apparently been a simulator that's been around for quite a while. But the person who built it no longer has time to maintain it, so they released it as open source. So, if you've ever thought about, if you ever wanted to just fly a spaceship, it's a pretty cool opportunity to just getting one and fly it.

PJ Hagerty:

I feel there's a there's a key word that might prevent me from jumping on this real-time. So, if I launch a ship and I'm like real-time to Mars, I just basically have a program running, a simulator running for, what is it, nine months or however long it takes to get there. But interesting to kind of look at and maybe delve into your math skills to figure out if you can get orbital trajectories corrected on that. Yes.

Ben Lloyd Pearson:

You're going a little bit deeper than I am. It would real-time trying to figure out what all the buttons in the cockpit of that spaceship does.

PJ Hagerty:

Oh, yeah. Well, I mean, I've got nine months to get to Mars, Ben Lloyd. I got time. The [crosstalk 00:06:54] have time.

Ben Lloyd Pearson:

It's true. And there's no risk.

PJ Hagerty:

What's this red thing? Burr. But awesome, so many great projects. And I feel like there's been a real explosion, kind of end of summer explosion in open source, which is always awesome to see.

Ben Lloyd Pearson:

Yep. And if you want to learn more, we have this news and more over at the Mattermost blog. That's mattermost.com/blog. Thanks, PJ.

PJ Hagerty:

All right. Thanks, Ben. For this episode, I'd you to meet Zef Hemel, Engineering Lead at Mattermost. Zef, tell us a little bit about yourself.

Zef Hemel:

Hey, PJ. As you said, my name is Zef Hemel. This is how it's pronounced, but I'm so used to everybody saying Hemel that I barely notice anymore. Right, so a little bit about myself. I am from the Netherlands, so I'm Dutch. But it's already 10 years ago, I moved here with my wife to Poland. That's where I've been living.

Zef Hemel:

My programming life has started quite early because I was in... my dad basically taught programming to physics students in the university. So, I think by nine, he finally accepted me as a student, in a sense. I think I wanted to start to learn to program earlier, but he's like, "Dude, you can barely write and read, let alone English. Let's wait." But finally, when I was nine, he started to teach me Turbo Pascal, which was kind of the teaching language back in the day.

PJ Hagerty:

Wait, that was my first language, too.

Zef Hemel:

Really? Yeah, no, Turbo Pascal, honestly, yeah, it's a very nice, maybe, I haven't touched Turbo Pascal, whatever, 20 years or something like that. But the way I remember it, it was perfect. But probably, if I would get back to it, it would be terrible, but anyway.

PJ Hagerty:

No doubt.

Zef Hemel:

That's how I got started. And then I think probably a decade later or so, my dad came home. I think it was a birthday present. It was like a huge CD ROM set of SUSE Linux. And this was kind of my starting my business, how I discovered open source like SUSE Linux 6.3 or something like that. Six-CD set, tried to install it, failed miserably. I couldn't figure it out. But I mean, I got some of the stuff working, but it was not, so yeah. It wasn't as easy as it is today, let's say. But still, one of the thing and that's why I'm mentioning SUSE is that the setup tool was called yet another setup tool...

PJ Hagerty:

Yes.

Zef Hemel:

Which I thought was very, I don't know. To me at that time, it felt clever, so that name stuck-

PJ Hagerty:

It's hilarious.

Zef Hemel:

It's hilarious. People were very funny. As my kind of programming progressed, I also moved to the internet. So, I started to look at "Hey, how can I do HTML websites, CSS?" And then, I was started to move to the back end and the only way to do back end around 2000 that I knew because PHP existed, but not so common, was Perl. Perl was another amazing language as I remember it. But actually, yeah, it's write-only code, I would say or you could basically drop, you could FTP.

Zef Hemel:

The way you would deploy web apps where you would have FTP, Perl files into your CGI bin directory, and then somehow, it would pick it up and code would run.

PJ Hagerty:

For accuracy.

Zef Hemel:

Yeah, for accuracy if you were lucky. If you CH model the files properly and stuff like that. And then, I got really interested in kind of communities. There were a bunch of forums that I frequented. Forums were the big thing. I mean, they still are around. We run a forum on forum.net, os.com. But dot-net was like a super hot area, like bulletin board forum and stuff like that.

Zef Hemel:

And I wanted to run my own. And there were commercial options and there were options that were running on PHP, but I didn't have access to that. So, I kind of thought, "Okay, let's see if we can start this as an open source project." So I started yet another bulletin board and this just referenced before the job in 2000 and yeah. This was old-style 2000's open source. Source Force, I think, maybe existed, but I didn't know how to use it. CVS, no idea. No Git didn't exist. SVN didn't exist back then, so it was kind of a different time.

Zef Hemel:

But the project, and I was 18 at that time, kind of took off. There were a whole bunch of people contributing codes. Contributing code meant posting it on the forum or I gave them FTP access, so they can upload the files themselves. And yeah, this kind of became quite a big thing for that time, I would say. After a year or two kind of, I think I went to study and I had to step out, but the project lived on for some time.

Zef Hemel:

It was ported to PHP, and it was forked to something called Simple Machine Forum and that still exists. I checked. And actually last week, I found out that Bitcoin Talk runs on that.

PJ Hagerty:

No kidding?

Zef Hemel:

Yeah, yeah, so you're welcome, I would say. This is based on a project I started 20 years ago. So, that's kind of how I started open source and web probing, programming and things like that.

Zef Hemel:

Then I went to university. After university, I got my first industry job at a company called Cloud 9 ID. And this was, again, kind of open source because it was also open core, so a lot of the things we did back then. So, Cloud Nine ID, we built an ID in the browser. That was kind of the vision as the next big thing, which I would say never really, really happened, although we have all these like Visual Studio code that are built on web technologies, but we generally don't really host them although nowadays GitHub Code Spaces, so maybe GitHub Code Spaces finally pushes it into the mainstream.

Zef Hemel:

But anyway, this was a startup where we did that and I built that. And we were working on code completion type of functionality. But also in the startup, I could kind of quickly, you find out that there's more you can do than just language tooling. And this is kind of how I naturally transitioned into management topics, because that's what we're going to talk

about, and with a very hardcore, compiler construction, technical background transitioning into more people-oriented role is it's like a career reset.

Zef Hemel:

So, I kind of felt that I had to go back to school, except I never went back to school. And this is probably the case where most people that are like engineering leads or engineering managers or whatever or something like that, it's like you have this whole technical knowledge. And then you would say, "Okay and now, you're a manager." And then it's like, "Figure it out."

Zef Hemel:

So this was quite a trip, but anyway, that's been what I've been doing for the last eight, nine years or so in all kinds of roles in different companies. And then, and six months ago, I joined Mattermost as an Engineering Lead, as you mentioned. First on the team that is kind of, well, it's now in beta, the collateral reply threads. This is like a big deal feature that I-

PJ Hagerty:

Which I will just toss, I'm a huge fan of.

Zef Hemel:

Yeah, no, it's one of those, I mean, when I joined the company and they explained it to me like, "Why is this so hard? This is just, you know?" Other products do this, "Why it's so hard," but kind of knowing the details and how everything works and how big of a change this is, like I said, yeah. This needs some time. It's in beta now. So, you can use it and definitely play with it, but it's not, not fully it's not GA yet.

Zef Hemel:

Anyway, and now more recently, I moved as a kind of the lead of the whole platform team. So, focus on QA, mobile, and UI, shared components and things like that. That's kind of my story so far.

PJ Hagerty:

I think that you kind of left a little thing out is that every Friday, more or less, you kind of released a blog post on your musings, just things you've been thinking about. And they're often around the people skills, the management skills, or they're, in some way, they're life skills. But one of the most recent ones you were talking about was about motivation

PJ Hagerty:

So, before we get super into what all of this means and the different kinds of motivation, what motivates you? It sounds like you've done a lot. What motivated you to kind of get on this track and do all these things?

Zef Hemel:

Yeah. I thought a lot about how does this all, how can I make a coherent story of what motivates me given that I've done programming and I've done management and they're quite different. So, what is the thing behind it that kind of like says, "Well, sure, I can do people stuff." But that also motivating to me where I was like 10 days earlier, I was just writing whatever, no GS code or whatever.

Zef Hemel:

And I think ultimately, it's just about trying, this sounds almost cheesy, but trying to make an impact, trying to leave your marks on work, kind of. And that can be done through code, you can release some code, and people can use it, but it can also be by, I don't know, having been on a podcast, for instance. And then hopefully, somebody taking something away that kind of changes their thinking a little bit.

Zef Hemel:

So, whenever I feel like in many cases in the past, where I'm like, "Oh, wow, yeah." Because for instance in this job, open source project, there were people that had never written code before. Because of the app, they started to write codes. Now, I

see that I follow them on LinkedIn, and they have good programming careers. And I'm not claiming this is my doing, but somehow I was part of that journey.

Zef Hemel:

So, whenever I kind of see like hey, something I did or contributed to or where I was that that made a difference, I found this super motivating. But this is very laggy. It takes a while to kind of figure out when you have that type of impact, but no. That's kind of what I'm looking for and whenever that happens, I'm like, "Yes, cool."

PJ Hagerty:

Having an impact on somebody's career, their life, often is kind of a long tail game. I work in developer relations and we always talk about sometimes you can talk to someone at a conference and they don't think about Mattermost for six months after that. And then suddenly, they sign up in there, because that's when the need came into their life. And but you had an impact, you just don't see it yet. And I think that a lot of times-

Zef Hemel:

Yeah, yeah. It's planting a seed. It's a lot about planting seeds.

PJ Hagerty:

Exactly, exactly.

Zef Hemel:

Yeah. And I think this is also one of the big things that I found switching from an engineering role where really your impact is almost direct that you change a line of code. You hit save, you reload the page and you see instant effects to a more management position like everything. The time spans of seeing that, getting a feedback just increase more and more basically, so it's a... so, what motivates you, PJ? What motivates you?

PJ Hagerty:

What motivates me? I mean, I think it's something similar. I had a long and storied career as a developer, as a speaker, but before that, I was a musician. And to me, the biggest thing was always giving someone something that they could relate to, they could feel on a certain deep down level. And that's still kind of what motivates me. When I go out there and I work today ad if I give a talk or I write a blog post.

PJ Hagerty:

And someone comes along and says like, "Hey, you changed the way I think about open source. You changed the way that I think about how I do my job as a developer." To me, that's the best feeling. If it's a room of 2000 people and one person walks up to me, my job's done. That's why I do it. Also, I mean, it's a big ego stroke to be up on stage and have lots of people clapping for you and they always clap, so it's a very nice motivation.

Zef Hemel:

True, true, true.

PJ Hagerty:

But yeah, so that's, so we're talking about motivation. And I think that we might need to take a step back to explain what exactly, what are the different kinds of motivation and what do they mean?

Zef Hemel:

So, the kind of thinking in Psychology, let's say, evolved over the last, whatever, 50, 60 years, but the way people kind of distinguish two different types of motivation right now. One is intrinsic. Intrinsic motivation is basically around natural curiosity. People are kind of naturally attracted to find new challenges, learn new things, and do things like that.

Zef Hemel:

And this type of motivation, and that's why it's very relevant, I would say to open source is like it's really driven by autonomy. So, autonomy is basically, you choose your own destiny. You kind of pick your own thing that you want to do, so like an open source, of course. You can start any project you want. You can join any project you want. You're not going to be pushed, anywhere, at least, by default, if you do this as a hobby, let's say. So, you have a lot of autonomy. And this is very, it's fuel for intrinsic motivation.

Zef Hemel:

Second is mastery. And I think we see this a lot, too. Like, "Hey, I want to learn Go. How do I do that?" Well, I can do my Hello World locally, but I can also look at a project where there's already a codebase where I can learn, where I can get feedback on my code that I submit, so poll requests and things like that. So, we increase level of mastery.

Zef Hemel:

And the third one is connectedness, which is more about purpose, contributing to something bigger than yourself. All that kind of big stuff, but also community becoming part of a group of people and things like that. We are kind of like a group of animals or whatever.

PJ Hagerty:

Yeah. We're social beings.

Zef Hemel:

We're social animals, right, yeah. And also, open source community is going to be like a support, helping that and that all kind of builds to intrinsic motivation. There's also extrinsic motivation and extrinsic, as the name kind of says, comes from the outside. So, this is where we are using, carrots and sticks, let's say. This is not to mean like to change people's behavior. And there's negative types of extrinsic motivation and there are positive ones. So punishment, threatening people, that's kind of like the negative type of extrinsic motivation. If you don't finish this feature, by Friday, you will be fired." Right?

PJ Hagerty:

Right.

Zef Hemel:

That works. But it's not-

PJ Hagerty:

Or if you finish this feature by Friday, you get a bonus.

Zef Hemel:

Exactly. Right, right, right. So, that's the positive side, so yeah, bonuses, awards, promotions, praise. It's kind of like from the outside, we're trying to get you to do more or do more of what we. And then we is kind of like the person who gives you the motivation, the extrinsic motivation to kind of control your behavior. This is the-

PJ Hagerty:

Right. But correct me if I'm wrong. Extrinsic motivation can be used to reinforce a negative behavior as well, though. I'm thinking here specifically of in the DevOps world, we talk a lot about the hero and how the hero is like the person when everything goes down, and the system is down, they come in and they save the day. And maybe they get a bonus from that, so they get some kind of monetary thing or they get praised from the company, which is still extrinsic motivation. And they're motivated to keep doing it.

PJ Hagerty:

But what they're not motivated to do is actually fix the underlying problem, fix the symptom or they're fixing the symptom, they're not curing the disease. They're like, "I know that when I come in every time, I run this particular script that I have on my machine, and that's going to solve the problem." Okay, that's good, but you didn't really solve the problem. But you're being motivated to do that because every time you do that, you get a $100 gift card to Amazon or something.

Zef Hemel:

Yeah, so and this is why extrinsic motivation is so tricky, because we have to be very careful what we kind of give this for. If, indeed like the hero steps in and every time we're like, "Ooh," big clap. "Thank God, finally, this person jumped in." You're reinforcing that behavior, so it will keep happening over and over again. So, you have to be if you want to use extrinsic motivators, you have to be very, very specific. And almost, this is almost impossible to make sure that you give it for the right things because it's very easy to kind of like create behavior that is not that desirable.

PJ Hagerty:

I mean, it seems like there are some negative aspects of like what are some of the risks when it comes to open source? When it comes to looking at extrinsic motivation, specifically, in the open source space?

Zef Hemel:

So, I think one of the things we're trying to solve and I don't think we've properly solved is to make open source more sustainable. And an obvious aspect of making it sustainable is like how do we give people the time to work on their open source projects? Hobby is one way. But it's kind of limited and not everybody has the luxury of having spare time to do that. So, we kind of want to increase the amount of time that people can spend on open source projects. So, basically, we need to fund this. So, there's different ways of trying to fund this.

Zef Hemel:

And one of the things, what I'm a bit not sure if this is the way, but you kind of see it happening is like this kind of bounty programs for... so let's take a hypothetical. Let's say, in Mattermost, we want to encourage more contribution and our idea to do this is to say, "Your GitHub issue list, we're going to now assign bounties. If you solve this particular ticket, you're going to get $100. If you solve this particular issue, we're going to give you $50." Let's say that we haven't implemented that, how do you think the community kind of comes and decides on what to contribute to.

Zef Hemel:

They probably, well, first of all, they either have a bank of themselves or kind of feature that they want to implement themselves. So, they have their own ideas on what they want to implement or if they don't have any ideas like that they will probably look at this. Have one to two tickets that we have in GitHub and pick something that fits their skill set or that they feel is important. But now, we put bounties on there. There's no dollar amount assigned to these tickets. What do you think would happen?

PJ Hagerty:

I think we kind of saw this in the Docathon recently where the first thing everyone did was go for the low-hanging fruit. They grab the easiest tickets they could grammar checks, grammar fixes, commas here, use of the Oxford comma, which is a big deal to me. But they immediately went for what was the lowest, was the easiest, because they believe that. And we did have prizes for the Docathon. So, they believe that, "if I do more tickets, if my quantity is good, my quality is irrelevant."

PJ Hagerty:

And we did have to have some conversations with people and explain like, "This isn't about the quantity of contributions. You don't win based on the quantity. It's a factor we look at, but it's the smallest factor. We'll look at the quality of the contributions you made."

Zef Hemel:

And that, this is what my example of something I mentioned is that it's very hard to get those motivators or kind of like rules, because generally, these rewards work like, "If you do this, you will get that." So, you have to be extremely specific or not on saying, well, basically, because in the case of these awards, "The people that contribute the most will get AirPods Pros" or whatever the award is.

Zef Hemel:

But then what does "contributes the most" mean? Does that mean number of tickets? Does it mean Git diff length? Does it mean actual thoughts? You have to be extremely specific. And the question is, if you really can? Because people will, well, not even with bad intention, but game the system, right?

PJ Hagerty:

Right, right.

Zef Hemel:

It's just like your brain switches to "How do I win this" mode? They came in like, "Hey, cool project. Let me see what I can do. And what's good for me, what's good for the community." And now they're like, "Ooh, AirPods Pros, that sounds cool. Let's see."

PJ Hagerty:

How much can I get done in an hour?

Zef Hemel:

How much can I do, yeah. I mean, and this is a little bit of an exaggeration. It's not like people are completely jumping into speedrunner mode or whatever. But this is a known thing that happens when you start to extrinsically motivate people in this type of way. So, we have to be very careful with it and think how much emphasis we put on this. And also, how we kind of set up our systems in a, I would say, safe way. Because indeed, it's very well-known that the moment that you put rewards on these things, the quality will drop, because people are just going for speed, as you mentioned.

Zef Hemel:

Indeed, you get the easy tickets come first, the low hanging fruit, like low. But also, the moment that your competition ends and I guess in the case of the handbook Docathon, we'll have to see. Will people stick around and keep contributing to this or do they kind of think, "Well, I used to be able."

Zef Hemel:

If we to take this bounty example. So, let's say that we put the dollar amounts on those tickets, now at some point, we're like, "Okay, that was cool. Let's stop." I think we will lose not only the people that came for the money, but also the people that were kind of exposed to this because before they were just, they're like, "Okay, well, the dollar amounts are missing. Now like, okay."

Zef Hemel:

Research kind of shows that it effects your intrinsic motivation, because you now so had been now pull towards the area of getting, "What reward do I get?" that you kind of forgot almost why you were originally there. So, this is another risk that we kind of see there? So, yeah. And then you basically have to keep doing this forever.

Zef Hemel:

And this is also the problem that we have in companies with bonuses. We can maybe at some point and we see the 2008, whatever, market collapse. This can go really wrong if you keep incentivizing people with more bonuses, more bonuses, more bonuses. But can you stop? You cannot just stop, right?

PJ Hagerty:

Right, right. Well, I mean, in some ways, you see this on a macro level with the venture capital startup market. You see companies that are on their Series G and they're saying they're still. But they've been motivated to continue to operate in the same way because they know that if they make one iterative change or one small pivot, they'll get another round of millions of dollars. And yet, they'll never have a complete, whatever that means, in the software world, a complete application that does a service that can stand on its own. It's such an odd thing. So, I don't think it's exclusive to software development at all. It's definitely...

Zef Hemel:

No, no, no, no, no.

PJ Hagerty:

... extrinsic motivation can have negative effects anywhere.

Zef Hemel:

Yeah, I mean, the financial market, I think is the most obvious kind of example, right?

PJ Hagerty:

Oh, yeah.

Zef Hemel:

Yeah, yeah, yeah.

PJ Hagerty:

And I don't pretend to understand that. That's a world I don't care-

Zef Hemel:

No. Also, I'm not super comfortable, but it kind of, it rings true. It's like the bonus culture or when you attach what you deliver today will give you X amount. Okay, now, I interview if you give me 10x that, you will get 10x that. It's like, "Okay, how do I get that?" It's not strange. It's not that these people are evil. It's just like you focus on people. You focus them on a target and everything else drop like morals. What is the ethical? What's the purpose of all of this? You don't focus on that, you just focus on the character that sort of just-

PJ Hagerty:

How to make the money, make the money.

Zef Hemel:

Yeah, yeah, yeah.

PJ Hagerty:

Exactly.

Zef Hemel:

And again, this is an extreme case. I don't think we're doing anything like that in the software and open source world, but it's something I think we should really think about. And that's also why I kind of think that the model we have in Mattermost, where we just hire people and pay them a steady salary that they think is fair, is a much more sustainable model. Because basically, you take the money largely out of the equation. I don't think day-to-day. If I make this commit or if I move, yeah, my manager moved this JIRA ticket or if I send this message or send this email, I don't think, oh, well, then I will get whatever $10, $100.

Zef Hemel:

This is just kind of background noise for me. Your salary comes in, I don't have to worry about that anymore. I can just do my day-to-day job and do what's "Right." So, which I think is the best model we have so far of kind of sustaining open source of having a revenue stream with Open Core and things like that. And then just hiring people at a steady salary level and then let them do what they should be doing.

PJ Hagerty:

Right. Get them moving.

Zef Hemel:

Driven by this intrinsic motivation, right, yeah, yeah.

PJ Hagerty:

Right. I think that makes sense. I think that you also speak about because we talked about with extrinsic, there's often low quality. But that's also true when you pay someone fairly, you kind of have that attitude of, "Okay, so I want to do better work because I want the work to be better. I don't want to build a focal board with 25 cards, because 25 cards get me a bonus. I want to do a focal board with five cards. Each card is extremely clear on what it is we're planning to do or what the next step in a process" or whatever. It's not just about, it goes back to the quantity versus quality, or even when-

Zef Hemel:

I think we do this really well. Because one of the things I already mentioned is we just hire people for a base salary. So, I think this is the most sustainable model that exists today. At least, that's what I think. And then on the community side, so the kind of the volunteer side, so the people that just are not employed by us, I think we give them a lot of autonomy. We are super open to, on the one hand, if somebody finds their own bugs and fixes them, great. If they come up with their own feature, like a very high chance that unless it's really completely counter to what we plan to do or the direction we want to go, we'll probably accept it happily. So there's a lot of autonomy there.

Zef Hemel:

And this is also I think, at some point, we got some feedback from our top contributors. One of the reasons they came is like, "Hey, I want to improve my language skills or I want to improve my goal, my JavaScript. How do I get feedback on that?" And also there, I think we do really well. I read it before I joined Mattermost. I was kind of reviewing, I recommend everybody to do this, by the way. If you're applying to a job the way you have open source components, have a look at the code reviews and see how people are kind of reviewing code, right?

PJ Hagerty:

Absolutely, yeah.

Zef Hemel:

And people in the community, which include the people that are employed by Mattermost are extremely constructive. Very nice, helpful, giving good feedback, so that we, yeah, basically improve the mastery of the programming skills, the design skills of everybody's. That's kind of like it takes their time to contribute to this project. It's kind of a way of giving back. So, I think we do this very well.

Zef Hemel:

And the other aspect is just the community. There's a podcast. We have a community at Mattermost. We have the forums. We have this mug, like the mug. I don't have it on my desk. Usually, I have it on my desk. The mug is one of the most brilliant pieces of swag I think Mattermost has that I've ever seen.

PJ Hagerty:

I agree, I agree 100%.

Zef Hemel:

Because initially, you just think, "Well, it's a mug." This mug, you can get mugs with whatever logo on them, that's fine. But I joined Mattermost before I made any actual code contributions and I got a whole lot of swag. I got stickers and hats and things like that, but I did not get the mug. So, I'm asking, "What do I do to get the mug?" And the answer is, "You actually have to contribute to Mattermost to get it." So, I haven't.

Zef Hemel:

Now, so I did and I probably fixed the comma, like an Oxford comma somewhere, and some other stuff after that. But then, a month or two later, it arrived. I'm like, "Okay, cool, that's a mug." But then if you read what it says. It says, reminds us, "Thank you," and then my GitHub username, "Zef Hemel, you've made a lasting contribution to the history of Mattermost," with a date, "March 1, 2021."

Zef Hemel:

Which to me when we talked about what is fostering intrinsic motivation, one of them is connectedness. What this mug tells you is like "You are one of us now. You contributed something that has purpose." So again, there's a point to this, this is not just for you, this is for us. This is for all the thousands, like I don't know, tens of thousands of people that will use what you just did. Either by reading the documentation or using this product day-to-day, so there's a point. And also you are now part of the mug club, right?

PJ Hagerty:

Right, right.

Zef Hemel:

You're one of the engineers that have contributed to this group. You're one of us, in the non...

PJ Hagerty:

Right. You're part of the team.

Zef Hemel:

... area way, yeah. One of us.

PJ Hagerty:

Yes. Well, I think that it's interesting because when Emily interviewed a lot of our top performers, our superstars, she asked. She's like, "What was your favorite thing about becoming part of Mattermost and the project. And every single one of them was like, "Getting the first mug."

Zef Hemel:

It really took me a while to figure this out.

PJ Hagerty:

Yeah, you and I have been around a while. We've had a few mugs with logos on them and they're not, it's like, "Ew." Even my wife was like, "Ugh, another mug with a logo." And I showed it to her and this is what it says. And she's like, "Oh, that's so sweet." And we kept it because usually, we got a million coffee mugs. But yeah, but it's an awesome, awesome gift to make you feel like you're part of something.

Zef Hemel:

Yeah. My initial thought was like this is just a reward. This is extrinsic motivation. "If you commit code and you push it or we merge it, we will give you a mug, because that's also how we kind of present it." But that's not the effect it has on people because indeed, then they will not be in some cases, because I saw these interviews. After whatever, five years, four years, whatever, still have this mug on their desk and hold it up. It really, it's a sign of belonging, basically. So, this is also I think quite a good thing that we do. So, I think we're doing a lot of things at Mattermost.

PJ Hagerty:

And I think that's why we're able to motivate so many people and keep them coming into, not just the community, but coming into the company as well.

Zef Hemel:

Yeah, so one of the things is because we also recruit from the community. It's for us, it's also kind of a recruitment tool. And I think and what I've heard is that, when we have a lot more job openings, we do also see that the number of community contributions go up. So, people are a little bit opportunistic in a sense of like, "Yes, we are contributing something big, but maybe there will also be a job down the line." So, but you know?

PJ Hagerty:

Sure. But I think that that's a back of the mind thing. I think a lot of other people still contribute because they love the project. And it's a great-

Zef Hemel:

Yeah, no, I think this is very clear. Yeah, yeah, yeah, yeah.

PJ Hagerty:

Zef Hemel, is there anything else you'd like people to know, before we kind of close up this episode?

Zef Hemel:

No. So, if you're kind of interested in this topic of motivation, which, there's a lot to it. It's-

PJ Hagerty:

Yeah, we encapsulated a bit just for the podcast.

Zef Hemel:

Yeah, yeah, yeah, yeah. So, just to and I think maybe we can include this in the podcast episode links or whatever. There are a couple of books on this topic. So, Drive by Daniel Pink is probably one of the most famous books about motivation. How do you motivate people? So, I would highly recommend that. There's also I think he has a Ted Talk, you could watch, so there's probably a shorter version if you want. Or I'm now in management, so all the references I'm going to give are going to be management books and business books can be summarized in five bullet points. And so-

PJ Hagerty:

That's good. Maybe that will make it easier for the next engineer who becomes a manager to actually understand what the path is. Maybe something they need to read to help them out.

Zef Hemel:

Right, right, right, right. The second book that I would recommend is Punishment by Rewards, which is by Alfie Kohn. Alfie Kohn is also if you're a parent and you want to think about, "How do we use rewards and punishments with kids?" Because that's another thing we can talk about, but in this podcast, probably.

PJ Hagerty:

That's a whole another podcast.

Zef Hemel:

That's a whole different podcast. He wrote very extensively. It's a very big book about basically the problems of extrinsic motivation. And he has a very strong opinion on this, which is basically eliminating any type of punishment reward, because it's not good. So, I think here what I'm trying to kind of say is, "Well, let's not be too extremist about this." He's quite extremist about it, but he backs it up with lots of research. So, it's not like he's just.

PJ Hagerty:

That's fair, that's fair.

Zef Hemel:

It's a very interesting read. And then there's a blog post that I kind of wrote to kind of summarize all of this as well. I say summary, but I tend to as you mentioned like my musings are sometimes long. So, compared to a book, it's short. Compared to some other person's story, it may be long.

PJ Hagerty:

But I will say this though, your musings, I read them every time you post them. I think they're so valuable and they're definitely worth the read. Sometimes you don't always see where it's leading to. You like to bury the lead a lot, which I think

is my favorite style of writing. But I really enjoy it, so definitely read the No More Rewards, musing on Zef's blog. But also, delve into some of the other topics because they're definitely worth it.

Zef Hemel:

Thank you. That's very nice. That's also praise, by the way, which you should not do because of extrinsic motivators.

PJ Hagerty:

Yeah. You're making it difficult for you.

Zef Hemel:

I know.

PJ Hagerty:

But I love your writing. It's so great. Zef, thank you so much for taking the time to join us on What Matters. I hope you enjoyed being on the podcast and hopefully, we'd get you back to talk more about this some other time.

PJ Hagerty:

For those of you listening, we look forward to bringing you many future episodes on this podcast. That's your extrinsic motivation, listeners, get more podcasts. That's what you get. That's your reward.

PJ Hagerty:

Keep listening and feel free to get in touch with us at community@mattermost.com. We're always @community.mattermost.com on the servers. I'm PJ Hagerty, you can find me there. Throw your questions, comments, episode or guest ideas at me. Let us know what you think matters most.

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