EPISODE 657

[INTRODUCTION]

[0:00:00.3] JM: Food gets thrown away from restaurants, homes, catering companies and any other place with a kitchen. Most of this food gets thrown away when it is still edible, and it could provide nutrition to somebody who's hungry, just like Airbnb makes use of excess living capacity, Olio was started to connect excess food with people who want to eat that food. There are numerous challenges with this idea. How do you control quality and ensure the food is safe? How do you make money as a business? How do you solve the chicken and egg problem and make sure that you get hungry users and people with food to give away at the same time?

Lloyd Watkin is a software engineer at Olio and he joins today's episode to describe how the platform works, how Olio is built and how the company plans to scale their large base of volunteers. It's a fascinating set of operational and engineering issues, as well as business questions, because Olio is, has a flavor of charity to it as well, but you'll understand that as you listen to the episode.

Before we get started, I want to mention that I'm hiring for a new company that I'm starting and I can't talk about the product yet, but I'm looking for an engineer in the Bay Area with significant experience in React JS and some cloud, whether that's Heroku, or Firebase or Amazon Web Services. You can e-mail me at jeff@softwareengineeringdaily.com, or check out the job posting at softwareengineeringdaily.com/jobs. I would love to hear from you.

[SPONSOR MESSAGE]

[0:01:38.8] JM: DigitalOcean is a reliable, easy-to-use cloud provider. I've used DigitalOcean for years, whenever I want to get an application off the ground quickly. I've always loved the focus on user experience, the great documentation and the simple user interface. More and more, people are finding out about DigitalOcean and realizing that DigitalOcean is perfect for their application workloads.

This year, DigitalOcean is making that even easier with new node types. A $15 flexible droplet that can mix and match different configurations of CPU and RAM to get the perfect amount of resources for your application. There are also CPU-optimized droplets perfect for highly active frontend servers, or CICD workloads.

Running on the cloud can get expensive, which is why DigitalOcean makes it easy to choose the right size instance. The prices on standard instances have gone down too. You can check out all their new deals by going to do.co/sedaily. As a bonus to our listeners, you will get a $100 in credit to use over 60 days. That's a lot of money to experiment with.

You can make a $100 go pretty far on DigitalOcean. You can use the credit for hosting, or infrastructure and that includes load balancers, object storage, DigitalOcean spaces is a great new product that provides object storage, and of course computation. Get your free $100 credit at do.co/sedaily.

Thanks to DigitalOcean for being a sponsor. The co-founder of digital ocean Moisey Uretsky was one of the first people I interviewed and his interview was really inspirational for me, so I've always thought of DigitalOcean as a pretty inspirational company. Thank you, DigitalOcean.

[INTERVIEW]

[0:03:45.6] JM: Lloyd Watkin, you are the lead developer at Olio, welcome to Software Engineering Daily.

[0:03:50.1] LW: Thanks very much. Nice to meet you.

[0:03:52.4] JM: It's good to meet you too. Olio is working on a problem that I know a lot of people have thought about, and that is the problem of food sharing. Can you explain what food sharing is?

[0:04:05.7] LW: Yeah. Essentially, I think all of us have probably got that one piece of food in the cupboard, so there may be the packet of lentils that you know should eat and to have a healthy diet, but you probably don't get round to, or the bag of salad that you picked up when

you bought a pizza that you intended to eat, but realistically the pizza was enough and was too tempting by itself. Rather than throw that away, it's wasting all the resources that gone into that, so the growing, the transport, the packaging, the advertising, the storing, the cooling, the transport back to your home, the refrigeration, share it with someone else so that doesn't go to waste.

[0:04:44.6] JM: This is a problem that I think people have looked at their own lives and said, "I could build a startup around food sharing." Then they look at it a little more closely and they see this problem just seems completely impossible, because there's so many things that makes food sharing hard to implement in practice. Why is it hard to implement food sharing as a application?

[0:05:07.6] LW: I mean, technically it's not a difficult problem. I think it's more around society and our behavior. Big thing that's changed over the last decade is services such as Lyft and Airbnb. Who would have thought 10 years ago that you would have a stranger stay in your spare room, and now that's become part of almost normality. We can start introducing other kinds of peer-to-peer sharing that we wouldn't be able to get away with previously.

[0:05:36.9] JM: Okay. Even then though, you've got the chicken and egg problem of you have to bootstrap this somehow, assuming you're going to follow the same network effects model as the ride sharing world. Give me a description for how Olio has approached the chicken and egg problem.

[0:05:57.9] LW: Yeah. It is often issues, we sometimes have new users join us and send an e-mail say, "Hey, no one's sharing in mine area. What do we do?" That's something we came across quite a bit to start with. We implemented what we call our Ambassador Program, and that's essentially users that are really keen on reducing food waste, can get resources from us, so posters, social links, or pre-written tweets and Facebook posts and links to articles. Then lots of people will let go and they'll talk to their friends, they'll say, "I want to share on social media." They'll even posters up in their local area. They'll put flyers through letter boxes and that gets the process moving.

Then it only takes one person to start sharing something, and that person, and once that interactions taking place that you could then get two people, four people, and I said the network effect grows. Yeah, in new areas it's – I live quite rurally and there's obviously nothing really going on where I am, but I had some – I was moving my dogs to a new dog food, and had half a bag left of the big biscuits, posted on. I was really surprised that within two hours, someone had requested it, and it was a lady just around the corner.

I met my new neighbor, and since then she's posted things on there. It's very slow in my area, but you can see the number of users is creeping up and the number of things being shared is slowly increasing. It just takes that one spark to get that magical Olio moment and then it also starts rolling.

[0:07:35.2] JM: I can imagine that. I certainly had that, the first time I used Airbnb, this interaction you have that is facilitated by new technology, but it's a very human interaction, and once you experience it you're like, "Oh, I want to recreate that, or I want to take part in this community." I imagine that the retention is pretty strong. Can you describe how the customer, or the user base has grown over time and how strong the retention is? Do people churn out, or give me a perspective for the community.

[0:08:09.8] LW: Yeah. Once we can get uses to experience what we call their aha moment, or their Olio moment, which is a lot of people will feel, "Oh, I'm not going to post my day old bag of salad, or that tin of beans I've got in the back, because nobody will want it." That's a real barrier. Once we've managed people – managed to convince people to share that and they get the quick request, because all the – a lot of the food on Olio does go within a couple of hours. I think it's something silly, like 95% is gone within one day.

Once you get that first aha, "Oh, my God. This actually works," get over that barrier, things grow very quickly. The people we don't manage to convince, the churn rate is a bit high at the moment, but again, we have lots of opportunities to reengage those people. When they, if say that we've managed to get them back in six months later, the community around them has grown much more and there's a lot more on there, and so their willingness to get involved is much higher.

[0:09:14.0] JM: Have you eaten much food off of Olio?

[0:09:18.2] LW: I have. I believe there was a flatlet that ended and the tenant had left a load of food behind. My girlfriend is a massive bargain hunter. She can get something for free. She is on there. I believe one night we actually collected around three bags full of tins and dried food, which I'd completely forgot about until I actually dragged that memory up. Yes, definitely have it food off there.

My personal aha moment was I was building a new chicken coup and I needed some roof felt, and the most bizarre coincidence ever happened that someone happened to post some roof felt on there. I've never seen roof felt on there before, or since, but it happened to be there just at the right time. It turned out, I even knew the person that posted it at you all. Wasn't aware that they were an earlier user, collected that, and something that he would have thrown away, it wasn't enough roof felt to do anything seeming useful with, but it was just the right size to do my chicken coup, so that was brilliant.

[0:10:23.1] JM: That is bizarre.

[0:10:24.2] LW: It was and very much was.

[0:10:28.7] JM: Do you know what roof felt is?

[0:10:30.9] LW: Okay. It's like a top, which mean sometimes the put on the roof tip, yeah. My important ring.

[0:10:36.5] JM: This is not just a food sharing company. This is a place where people can post things and other people could pick things up.

[0:10:42.6] LW: Yes. Yes. I mean, our main focus for the company is to unlock the value of with food that would otherwise go to waste, but there are so many other things that go to waste that have value to somebody. You know the famous saying of one man's rubbish is another man's gold. You'd be somewhat surprised of some of the things going there. There's, you're moving boxes, but even my son does what they call junk modeling. You get some empty plastic bottles,

some old toilet, or – and children can have fun using those substances and make rockets and all kinds of things, so you never know what is going to be useful to another person.

[0:11:26.7] JM: I think you've raised a series A, and that's a total – you've raised a total of 8.2 million dollars, or something like that. What you've described so far sounds a friendly bulletin board exchange. How is it a business?

[0:11:43.7] LW: That's something we're working really hard on at the moment, and in terms of thinking. We're exploring avenues. We went down a process of having donations in the app, so if someone posted something that was potentially of high value, I think at one point we had a piano on there, for example. The person posting the item could request a donation to a cause and we would have a small percentage of that. That didn't really work out, so we've rolled that back now.

Another thing we're working on is we have another group of volunteers, we should call our food waste heroes, who are an amazing set of people that will go into a business in near where they live. At the end of the day, they will collect the food that the business couldn't sell, so this could be a supermarket and bakery items, fruit, vegetables, that kind of thing. Or a sandwich shop, so they're baguettes, their hot food. It's all perfectly edible, but obviously a sandwich shop can't sell sandwiches from yesterday, and they will take that away and they will redistribute it to the local community.

An amazing thing that happens with that is because we're using a volunteer community, we can do that at – so we charge the companies to provide this service and manage the volunteers, but that service actually costs less for the business than it would be to put the food into the bin. Not only are they winning environmentally, but they are also helping the local community and they're also saving themselves some money at the same time. You've got a tri-vector of good for them.

[0:13:24.1] JM: Let's say that I want to eat a meal on Olio. I'm hungry, it's almost lunchtime, what do I need to do?

[0:13:33.5] LW: You can download the app from Google Play, or the App Store, or alternative we have growing web app version, which is in its early days, but we're adding features to it as

quickly as we can. You sign-up, you set your current location, and once you've gone through the onboarding process, you'll be shown a list of local food items, or if you want to also see non-food items, you can. There's also a set of wanted items on there as well, just to mention that. If I'm cooking a meal this evening and I don't have any coriander, but I don't want to buy a huge amount of coriander, there might be someone in the area that has some.

You click on the item you're interested in, you'll receive more details, you'll see a photo, you'll see the details about the person posting it, then they may have a rating to let you know that they're trustworthy, you hit request, you send the person a message, they get back to you, you have a quick discussion about when you're going to collect it, arrange that between yourselves. They mark the item as that, "Jeff's going to collect it." It becomes non-available to everyone else now. You collect, you enjoy, you win.

[0:14:40.8] JM: What about quality control? If I show up and I pick up somebody's, somebody label something is food, and then I show up and it's like a bag of trash, and it's like, "What?" They're like, "No, it's food." I'm like, "This is a bag of trash. You're just trying to get me to take out your trash." They say, "No, it's food. It's food. You got to take it. Go away." How do you regulate against that bad actor?

[0:15:04.6] LW: Yeah, so that's actually – that's one of the worries that a lot of people have around food poisoning, or that thing happening. In the roughly four years that Olio has been around, that's never happened a single time. Most people are good people, and why would you go to the effort of posting your trash on there? That would not make sense. We have community guidelines, so you should never post anything that you're willing to eat yourself. We also outline the difference between best before and use by. Best before is let you know this product was great on this day. After that, might not be so great. Versus use by, which is after this day, it shouldn't be used.

Also from interactions, we have ratings. If you did go and pick up the trash, or at least turn up to potentially pick up the trash, you could rate that user, give them a low rating, or even report them if it's that bad, and we are – we're very on top of reports like that, because they are very – our community is our lifeblood. We look after them very well.

If a user repeatedly gets low ratings as well, they are e-mailed and put on a sort of 30-day suspension with the reasons why. If 30 days they come back, and if they are a repeat offender, than they'll be removed from the app.

[SPONSOR MESSAGE]

[0:16:32.7] JM: In today's fast-paced world, you have to be able to build the skills that you need when you need them. With Pluralsight's learning platform, you can level up your skills in cutting-edge technology, like machine learning, cloud infrastructure, mobile development, DevOps and blockchain. Find out where your skills stand with Pluralsight IQ and then jump into expert-led courses organized into curated learning paths.

Pluralsight is a personalized learning experience that helps you keep pace. Get ahead by visiting pluralsight.com/sedaily for a free 10-day trial. If you're leading a team, discover how your organization can move faster with plans for enterprises. Pluralsight has helped thousands of organizations innovate, including Adobe, AT&T, VMware and Tableau.

Go to pluralsight.com/sedaily to get a free 10-day trial and dive into the platform. When you sign up, you also get 50% off of your first month. If you want to commit, you can get $50 off an annual subscription. Get access to all three; the 10-day free trial, 50% off your first month and $50 off a yearly subscription at pluralsight.com/sedaily.

Thank you to Pluralsight for being a new sponsor of Software Engineering Daily. To check it out while supporting Software Engineering Daily, go to pluralsight.com/sedaily.

[INTERVIEW CONTINUED]

[0:18:12.0] JM: That best before and used by differentiation, I think that's how a lot of supermarkets make their hot bar. You have a supermarket like Whole Foods that also serves food. They have the hot bar where you've got casseroles and sautéed green beans and things like that. You walk up to it and it's like, "Oh, $8.99 for a pound of this stuff," and a lot of times they're making use of best buy, versus the used by date, so they have green beans that are best

by August 3rd and then they can use those in a green bean casserole, as long as that green bean casserole gets sold within 5 days. Like that's –

[0:18:54.0] LW: Yeah. Well, I know in the UK, if a store puts hot food out, they have to – it has to be sold within two hours, or it needs to be taken off the shelf. Again, traditionally that food would then be thrown away. With Olio, that would go in the fridge and someone will come and collect it at the end of the day and redistribute it.

[0:19:13.1] JM: Are there legal, or health liabilities to creating a food sharing platform?

[0:19:19.3] LW: Yes. I'd imagine so. I'm not being from the tech aspect of things. I'm not au fait with the detailed legalities of it, but we have – we work very closely with some foods and catering lawyers that help draft up our agreements and terms and things of that. We're always, as we do new parts of the project, now as we grow, we are aware that we become a bigger risk. We're always working on that to make sure that everyone is safe as possible.

[0:19:50.3] JM: Well, let's talk a little bit about the software. Can you describe the infrastructure and the mobile apps to me?

[0:19:57.5] LW: Yeah, sure. The mobile apps are written in ionic version one, which as you may know, or may not, it's end-of-life, so it's becoming really hard support. Currently, we are working with a really great development agency in Bristol, in UK called Simple Web, who actually built the original version of Olio way back just before I started. They're helping us get going on a React Native rewrite, which is good and quite exciting. To a mini design refresh and to reevaluate our current features and get something new and shiny out there, so that's hoping to come out by Christmas of 2018.

In terms of the backend, we run entirely on Amazon AWS, it's a Ruby on Rails back-end, although we have some NodeJS and sort of lambdas, lambda functions for doing image processing. We use job queue, using Reddit servers and our database is Amazon Aurora, which is the MySQL Fork, and that's been absolutely brilliant. We also use then, use S3 and Route 53 and the load balancers, it's standard stuff beyond that.

[0:21:12.9] JM: I think you have some messaging in the app, right? I can send a private message, or send a message in a chat room to somebody?

[0:21:19.6] LW: Yeah, that's correct.

[0:21:20.9] JM: I've built a couple apps, where we used I think Firebase. Firebase has some really easy design patterns for building chatroom-like applications. What did you use for the chatroom back-end in that? Because with chat, you have this interesting push situation, where I send a message to you and the message gets registered on the server, then the server needs to send a push notification to somebody else's phone, and you have this interesting pub/sub problem. It's not necessarily a hard problem, there's just a lot of different ways you can solve it, so I'm curious how you solved it.

[0:21:54.6]LW: Yeah. I mean, our messaging system is actually really basic. There's nothing too intelligent about it. It's literally post request, mobile notification push. All the messages are grouped around conversations, so you don't get one big long set data for it. I'm actually from an XMPP background, and so my dream originally was to get this, our messaging built in XMPP. That's probably a longer term goal and I know it would be the – it'd be a really great scalable solution for that. Right now, as we're still small, it's don't do work, you don't have to do until you – don't do work until it hurts, I think is the phrase.

[0:22:37.3] JM: Of course. This is a really interesting company. It's a really interesting project. There's a lot of different areas you could work on and it seems like some of those areas would be probably not necessarily dead ends, but would be you'd get less bang for your buck. I imagine there is some effort on finding what the focus should be, because it sounds like you've got a lot of small communities strewn throughout the world and you have to manage all these different communities, you've got volunteers in some of the communities, you've got some areas, where there's more food being spread than others, you've got some areas where there's roofing materials that are being spread and people can use those.

How do you wrap your mind around the problem set that Olio has right now and decide what specific things to focus your small amount of time on and your small amount of engineering resources on?

[0:23:34.2] LW: Yeah, sure. A lot of it comes back from feedback from our community. As I said, we have a volunteer program. I think the most recent numbers are that we have 21,000 volunteers signed up. I mean, even though Olio itself is a small company with a small team, we actually have a massive extended family, so to speak, that really help us in terms of what we need to focus on, or where they need help, I should say.

We also take quite a look deep look at the data as well. The other thing we have is we eat our own dog food, so pretty much I'm aware as everyone in the company is very much behind reducing food waste, whether they've come from the type of person that loves a bargain, some people from environmental-wise, other people just because they hate food waste. We all pretty much actively use the app per minute.

The team members that are in London, it's much easier for them to use it with a big community. Our volunteer managers actually go out and they do collections themselves, so they see the problems and they feel the pain of anything that's not ideal. Then that comes back and we make things better for everyone.

The other thing is that we do things manually, so until they become painful and then we start automating them. As we're were reaching the point now where our food waste hero program is becoming difficult to manage manually, so we're finding the most painful bits and we are automating them out. To help our volunteers onboard quicker and find information quicker, also to means that our volunteer managers can then spend their time working on new communities, rather than managing the existing ones.

[0:25:17.7] JM: What is the food waste hero problem?

[0:25:20.4] LW: The food waste hero problem is what I talked about earlier, where we work with businesses that want to reduce their food waste and their costs, as well as help the local community. We work with them by ranging groups of volunteers to go in once or twice a day every day, or twice a week depending on the business and the size. They collect food and they'd take it away and they redistribute to the local community.

That we see posts. We have a private Facebook group for these volunteers and you would not believe the amount of food that gets saved by them. There's a lady that lives on the island of Jersey in the Channel Islands in the UK who joined as a volunteer originally, is now a staff member who's amazing, enthusiastic and she has a goal of making Jersey the world's first zero food waste island, I believe. She regularly posts photos of literally car loads of food that would have gone in the bin that they've saved and redistributed across the island. It's mind-blowing how much there is.

[0:26:22.1] JM: How does that fit into her life? When does she go and collect food and how does she distribute it to people and what's her interaction with the Olio platform?

[0:26:29.5] LW: Originally she – I said she joined as a volunteer. I believe she'd only fairly recently moved to Jersey, really cares about volunteering her food waste. Found the app and I believe she went and just started talking to businesses on the island. Maybe a friendly local sandwich shop to start with and just started sharing stuff and then went and talked to a supermarket and got involved and got some friends involved. Now as you're meeting people, sharing this food out, people want to get involved and it all just grows and grows and grows from there.

[0:27:05.9] JM: Her interaction with the platform. Let's say on a given day, she's going to go and collect a bunch of food from different restaurants, so I guess does she interact with the app while doing that?

[0:27:17.6] LW: Yes. We have a volunteer help which helps a lot of volunteers organize their collections and things. Once she's collected it, take it home and just start taking photos and uploading it, and then people in the local area are notified about the things she's uploaded.

[0:27:32.8] JM: Cool. Then they come by her house to pick up the food?

[0:27:35.5] LW: Yeah, that happens with a lot of people. For those who are not comfortable with that, obviously they will go somewhere more public and arrange a collection there. Most people will have people come to the house, just on the doorstep. It's a really great way to meet neighbors. I remember quite some time ago, I posted, I think it was a salt and pepper shaker

that we'd somehow we'd ended up in multiple in the house. Someone came to collect them and he had told me story that he just moved to the area and he was using Olio to meet new people, but also to teach himself how to get around. He was walking to all these different areas of Bristol and just discovering his area.

[0:28:18.4] JM: That is pretty cool. I mean, why not? If you're looking to get to know an area, you download Olio, you start walking around and getting free stuff and meeting people.

[0:28:28.0] LW: Yeah, yeah. I mean, Olio is, it's a food sharing app, but it goes way beyond just food sharing. I mean, we have – there's obviously a lot of people in the world that are in food poverty, so it helps them, but because we're initiating person-to-person contact and building relationships and building friendships, people who have previously been socially isolated, they get to meet people, they get involved in the community, and it's much bigger than just sharing that bag of salad.

[0:29:00.3] JM: You got any more anecdotes? This sounds like a crazy community. I mean, in a crazy in a good way, a very interesting way. Tell me some more anecdotes.

[0:29:08.3] LW: I think the things that we – the worst ones and the nicest ones that we get on a scarily regular basis are people who have become isolated in their community. They do not know where their next meal is coming from. Some people messaging that they haven't eaten in days, and they've discovered Olio and they have found a neighbor that's sharing a meal that maybe they overcooked and going and collect it. Just the outpouring of happiness and gratitude that was available.

They talk about then how that one little step allowed them to give them the confidence to do something else, and to then become a volunteer and then to get involved in a food waste hero squad. You can see people's lives changing, and it's one of the most wonderful things you've ever experienced to get one of those e-mails. Not a funny one I'm afraid, but they are truly amazing stories that we get.

[SPONSOR MESSAGE]

[0:30:22.8] JM: Azure Container Service simplifies the deployment, management and operations of Kubernetes. Eliminate the complicated planning and deployment of fully orchestrated containerized applications with Kubernetes.

You can quickly provision clusters to be up and running in no time, while simplifying your monitoring and cluster management through auto upgrades and a built-in operations console. Avoid being locked-in to any one vendor or resource. You can continue to work with the tools that you already know, so just helm and move applications to any Kubernetes deployment.

Integrate with your choice of container registry, including Azure container registry. Also, quickly and efficiently scale to maximize your resource utilization without having to take your applications offline. Isolate your application from infrastructure failures and transparently scale the underlying infrastructure to meet growing demands, all while increasing the security, reliability and availability of critical business workloads with Azure.

To learn more about Azure Container Service and other Azure services, as well as receive a free e-book by Brendan Burns, go to aka.ms/sedaily. Brendan Burns is the creator of Kubernetes and his e-book is about some of the distributed systems design lessons that he has learned building Kubernetes.

That e-book is available at aka.ms/sedaily.

[INTERVIEW CONTINUED]

[0:31:58.7] JM: I've talked to a number of companies where there is a facet of volunteerism to building the product that they're building. I used to answer a lot of questions on Quora, and Quora is this question and answer platform, and if you answer a lot of questions and you develop a good reputation in some subject for answering particular questions, they name you a top writer. Then that being a top writer gives you some benefits, like they send you a t-shirt and they send you some books, or stuff like that, but they have ways of rewarding the volunteers who are basically helping them build their platform. Can you tell me more about the process of interacting with the volunteers? Because the volunteers are such an important layer of scalability for Olio.

[0:32:50.5] LW: Yeah. We have a private volunteer Facebook group, where we discuss and we let them know about things early, so that they can feedback. They have buy-in to new features and they get to shape the Olio that they want to create as well. We have events, so they've mostly been focused in London, I believe. We've done a couple in Stockholm and Sweden as well, where we'll have a volunteer picnics, or meetup and everyone brings some food and it's all shared.

We've had drinks in London and obviously, these things to show to help – the volunteers are a community within a community. Again, them involved in events as well and all sharing ideas is quite cool. We regularly communicate with them, just often contact with them. Yeah, they definitely are the most important thing about Olio, and finding ways to make their lives easier, but also make they are part of Olio. They are extra members of the team and they're being part of Olio is paramount.

[0:33:53.2] JM: Do you feel like the product has enough momentum that it's growing naturally, or is there still a need to do some degree of marketing?

[0:34:03.8] LW: In certain areas, it is going itself, especially when the volunteers are involved. London certainly is, it's just snowballing now. Bringing up community in other areas does take marketing, so we have brought a couple of people on in on the West Coast, the US, as San Francisco area. We are working with the business in the north of England and we have someone there building a community.

We were involved in the UK, there was a television program called Waste Not with a famous chef on it and big supermarket chain called Sainsbury's was involved in trying to reduce the food waste of this town. They funded a community member staff for us up there, and she started off with one [inaudible 0:34:51.4], in the end, they asked her to work with several others in that area, and that got it going. Yeah, certainly the initial trying to build a big community initially does take some effort, either someone on the ground, or some specific marketing. Also seeding the supply as well, so if you look at a restaurant and there's no one in there eating, you are less inclined to go in there. Whereas, if you walk past a restaurant with several people eating there,

you're more inclined to go and try that restaurant. It's the same for having things on Olio when you first visit it to encourage you and get you interacting.

[0:35:27.4] JM: You and I were talking before the show about how you used to work at Amazon, and I spent some time there as well. How does working at Olio, which is a pretty early-stage startup with some traction, but some an indeterminate business ball? I'm sure you're heavily involved in the business side of things, as well as the technical side of things. How does that existential experience compare between being an engineer at Amazon and being an engineer on this very new company?

[0:36:01.5] LW: Yeah. For me, actually Amazon was a bit of a blip in my career, so I previously worked for lots of startups where I was employee number five. I went from very, very tiny companies to Amazon, which is massive and then I've gone back to a very, very tiny company. For me working at – I mean, Amazon is an amazing experience and I loved it, but while I was sat at my desk one day, an e-mail came in and everything about Olio was like, tick, tick, tick, tick, yes, yes, yes, this is everything I want to do with my life.

What I do love about startups is that you are involved in everything. If one day that you need to help with some marketing stuff, you have all these hands on deck, I do love that – just that intimate knowledge of all parts of the business, which you don't get when you work for a bigger company. I also love being able to influence and change how the business is running at this level.

Also have people with different experiences affect how we do things in tech. It could be someone from the volunteer group that comes up with a suggestion that we hadn't thought about it, and actually that's a much better solution than any of us ever considered. I love that interaction and people with different life experiences bring different things to the table and with a really small tight-knit team like Olio, that's really great, especially given that everyone in the company is so mission-aligned.

[0:37:32.7] JM: What are the big engineering problems that you're most focused on right now?

[0:37:38.0] LW: Right now, we're shifting all our efforts. We all are doing one more release on our current mobile app platform. Then all focus is 100% shifting to building this new version in React Native. At the same time, we've just recruited a couple of new developers who are coming in to pretty much focus on automating the volunteer experience, so our team – our community managers can now go off and start working on the next steps and growing that side of the business as well. Yeah, two-pronged; React Native development and more work for supporting our volunteers.

[0:38:18.8] JM: Those are really interesting. What do you see is in the future for Olio? What are the big developments that you see on a business level?

[0:38:26.4] LW: Yeah. I think with the series A investment, we have some goals from our investors to grow in the platform and improve our number, food articles posted and number of collections, anything like that. The really great thing about the investors that we brought on is they're all impact investors. They're not looking to get money straight out of Olio. They want to make a change in the world, which is specifically why the founders went out and worked so hard to find these investors.

That gives us some time to work on improving the app and improving the experience before we then start having to monetize. We're not wonderful, half of our life cycle where that's not the main focus, but that is going to be a major challenge in a couple of years' time, something we're going to have to plan for a couple of years in order to do and to make sure that we don't – so obviously, we have a lot of vulnerable people on the app, so we can't monetize the point where we are no longer serving them. Also, if we monetize in the wrong way, it will actually reduce – increase the amount of food waste, because people won't be posting, or they don't want to share it. It's more of a business issue, but finding a way to start making money from the business without degradating the experience for our current users.

[0:39:49.8] JM: Have you looked at the Craigslist model?

[0:39:52.5] LW: I haven't personally, but maybe something we're looking at. Do you have more information that you could share?

[0:39:58.1] JM: No. Not a ton. I remember, I actually talked to a different company that's in a similar situation. freeCodeCamp, I don't know if you've heard of freeCodeCamp, but this is this online way that if you want to learn to code, you can learn from Free Code Camp. It's a huge community and a lot of people are learning to code through there. It's entirely open source and the guy that runs it, Quincy Larson is a friend of mine.

It's always funny just talking to him about how he thinks about the business, because it's not a charity. It is a business, I think, unless things have changed since we last spoke, but he's in a similar situation where they don't want to change the flavor of it. They don't want to make it into something where it's exploitative to the people who make up the fabric of the community. They do something where I think they make most of their money off of people who find jobs. After you go through freeCodeCamp and you've learned to code, then maybe freeCodeCamp gets you a job and freeCodeCamp gets a referral fee and then it's win-win-win, which is great.

I think what Craigslist does, Craigslist is this big community billboard platform thing that's been around for 20 years, or probably longer. Quincy from freeCodeCamp was telling me about how he looks at Craigslist and thinks about Craigslist as a potential model for something to – just to take inspiration from. I think Craigslist monetizes such a small fraction of their users; people who are looking for apartments in New York, just specifically people looking for apartments in New York, if they are served advertisements. Some super small percentage of people on Craigslist see advertisement. Maybe it's something like, you have these food waste heroes, these restaurants that are giving away food, excess food that would otherwise go to waste.

Maybe there's some opportunity to have them be advertised for in the app. It's like, if you have other people who are giving away food, some high-income people who are giving away food, or giving away roofing supplies, maybe you could advertise these restaurants to them, or something like that. I'm sure there's, if you have a big enough –

[0:42:13.2] LW: Yes. You go to learn about our uses and trying to ascertain the demographic, I guess, and then if we work out, that they're not somebody in need, or someone struggling then yeah, show them some advertising. There's lots of ways that we could look at this and it's going to be very interesting to see what we come out with and what works and what doesn't work. The

one nice thing about Olio is we try things, and if they fail, then we feedback and we try something else and we'll keep trying until we find the right mixture.

[0:42:43.0] JM: How aggressively are you hiring right now?

[0:42:44.9] LW: Not very aggressively. One thing that's very important to us is mission fit. We actually met for the one of the first times ever as an entire team, because we're all remote, about a month ago. It was amazing to see just how much we all were really, really focused on what we do. There wasn't anyone that was there because it was a job, or because they just enjoyed marketing. They enjoyed marketing, but really cared about the mission of reducing food waste and helping the environment, things like that.

We turn away so many people, because we really want to find someone that cares about the same things we do. Because or quite frankly, if they didn't, they'd be bored by our company chat, because we are constantly sharing environmental things, reducing plastic waste, even someone having their breakfast, eating a watermelon going like, "How can I not check this away, and how can I make use of this?" We really want to find people, but we want to find the right people who care about the same things. Even if you have a job that you love, there's always going to be hard times. If you care about the mission as well, they will help steer you through those hard times as well.

[0:43:57.0] JM: Can you become a non-profit, or a B corporation or something?

[0:44:01.2] LW: Yeah. B Corp is something that's being mentioned a few times. Also, we have a problem working with some companies who are, because a lot of companies won't donate to people who aren't charities essentially. Maybe a model we can look at is a charity arm of Olio that could then take the donations and do everything that way, but supported by a business. Like a lot of open source companies do as well. They have their corporate paid for area, but they have their open source project, which is that the focus of their work.

[0:44:34.7] JM: Cool. Well Lloyd, it's been really great talking to you. I am fascinated by Olio and I look forward to the future developments of the company.

[0:44:42.3] LW: Yeah, cool. Please feel free to post your bag of salad, or pack of lentils and have your magical Olio moment.

[0:44:51.6] JM: I think I will. Maybe I'll shop around a little bit. I am getting a little bit hungry.

[0:44:55.8] LW: There you go. You never know what you'll find.

[0:44:57.8] JM: I also need a new roof.

[0:44:59.9] LW: Oh, yeah. Definitely that's your place to go. The roofsdirect.com of peer-to-peer apps.

[0:45:09.0] JM: Okay. Well Lloyd Watkin. Thanks for coming on the show.

[0:45:11.1] LW: Thanks very much. Nice speaking to you go.

[END OF INTERVIEW]

[0:45:15.8] JM: GoCD is a continuous delivery tool created by ThoughtWorks. It's open source and free to use and GoCD has all the features you need for continuous delivery. Model your deployment pipelines without installing any plugins. Use the value stream map to visualize your end-to-end workflow. If you use Kubernetes, GoCD is a natural fit to add continuous delivery to your project.

With GoCD running on Kubernetes, you define your build workflow and let GoCD provision and scale your infrastructure on the fly. GoCD agents use Kubernetes to scale as needed. Check out gocd.org/sedaily and learn about how you can get started. GoCD was built with the learnings of the ThoughtWorks engineering team, who have talked about building the product in previous episodes of Software Engineering Daily, and it's great to see the continued progress on GoCD with the new Kubernetes integrations.

You can check it out for yourself at gocd.org/sedaily. Thank you so much to ThoughtWorks for being a long-time sponsor of Software Engineering Daily. We're proud to have ThoughtWorks and GoCD as sponsors of the show.

[END]