

## CommunityCatsPodcast\_Ep418\_Massey\_210824.mp3

**Kristen Petrie** [00:00:03]

You've tuned in to The Community Cats Podcast. Ready? Let's go.

**Stacy LeBaron** [00:00:13]

Welcome to The Community Cats Podcast. I am your host, Stacy LeBaron. I've been involved helping homeless cats for over twenty years with the Merrimack River Feline Rescue Society. The goal of this podcast is to expose you to amazing people who are improving the lives of cats. I hope these interviews will help you learn how you can turn your passion for cats into action. Today, we're speaking with Sanja Massey of Sylvester.ai. Happier cats lead longer, healthier lives, and Tably was designed to help you monitor your cat's well-being by simply pointing your phone at their face. Tably analyzes your cat using machine learning and the Feline Grimace Scale and looks for the subtle clues your cat gives, that let you know how they're doing so you can catch issues before they turn into bigger problems. Sanja, welcome to the show.

**Sanja Massey** [00:01:02]

Thanks, Stacy. I'm excited to be here today.

**Stacy** [00:01:04]

So before we jump into the details on the Tably app and all the things that you're doing at Sylvester.ai, I just wanted to ask you, how did you become passionate about cats?

**Sanja** [00:01:14]

Yeah. I mean, I think, you know, I feel like cats are the, in a sense, like that underserved segment of kind of the animal world, right? I mean, we look at how often dogs go to the vet versus cats. Like most veterinarians say they see about twenty-five percent cats in their, out of their entire amount of patients. And what's interesting is those numbers aren't reflected in the number of cats that we know are household pets especially. I forget the exact figures but I think it was, you know around sixty million cats and around seventy-five million dogs. So definitely not twenty-five percent. So clearly cats aren't getting to the vet as much and so our goal

here is really to get people to be more proactive with cat care, which is really kind of what has us focusing on our feline friends.

**Stacy** [00:02:06]

And so Tably, so tell me about the app. Who got the idea for it? Why it got started? Where did all the technology come from? So, you know, my who, what, where, when, all of those questions, you know, just set the stage for us as to, you know, how did Tably become what it is?

**Sanja** [00:02:23]

Sure. So Tably was created by our company called Sylvester.ai. and Sylvester.ai is a company that is committed to advancing animal welfare with the use of artificial intelligence. And the way we really got started was, there was a not-for-profit called Cat Healthy that had approached us really, with this problem of cats are so amazing at hiding pain. They're not you know, as needy as you know, as an example, humans or dogs are when they have pain. They don't elicit signs of help because, you know, kind of biologically in nature that is a sign of weakness and because they're both predator and prey, they're amazing at masking pain. They don't want people to know that they're suffering. And so with Cat Healthy, we thought, well, let's see if artificial intelligence can help this. And the really interesting thing about artificial intelligence is there's been a lot of amazing advancements in human health care with AI, but not so much in animal health care. And so it was an idea we started exploring. We stumbled upon a study called the Feline Grimace Scale, which is a validated medical study that has identified five subtle, facial cues in a cat that can determine if that cat is in pain or not. So it looks at ear positioning, eye positioning, muzzle positioning, five different things, and it can actually indicate how the cat is feeling. And so we built a machine learning model to be able to actually read that off of a photo and that's kind of how it all started.

**Stacy** [00:04:04]

That's really interesting. So, how long has the app been around?

**Sanja** [00:04:08]

So the app has been around for about five months now. We prototyped the app for probably about five months on top of that. So, yeah.

**Stacy** [00:04:20]

And is the app free, or is that something we buy?

**Sanja** [00:04:23]

So the app is free to download in the Apple app store. Perhaps by the time this episode comes out it will also be in the Android store, but currently it is free and in the Apple app store.

**Stacy** [00:04:35]

So I know it's relatively new. Have you had interest? Lots of people using it? You know, are there any stories of how people have used it for their own cats?

**Sanja** [00:04:44]

Yeah. Well, the first kind of aha moment for us is really when our machine learning developer, the one who really built our model, he's never had a pet before, except for perhaps a fish, and he, after looking at pictures of cats all day, had to have a cat. So he went out and adopted a cat. And the cat's name is Hobbes and Hobbes was a very integral part of our project. He was a great model. We took pictures of him all day to test the model. And he'd had Hobbes for about a month or so, and then the app was reading him as unhappy and it was pretty continuously returning negative results over the span of a week. And so, our developer took Hobbes into the vet, and the vet discovered that Hobbes had ear mites. And as a new cat owner, that's really not something that you'd kind of be able to see until, you know, the cat might be so visibly in agony that it's like scratching its ears, perhaps the point that they're bleeding, right? And so, that was kind of the moment where we realized, like, wow, we saved Hobbes from, you know, how many extra days of suffering, just through the app and the app being able to identify that he was feeling unwell in advance of when his owner knew he was feeling unwell. Yeah.

**Stacy** [00:05:58]

So I'm going to ask a question since I'm sort of ignorant about AI stuff. So he's taking pictures of Hobbes like every day, basically. So does the AI kind of get to know Hobbes' facial expressions and adapts to Hobbes uniqueness or is it like, oh I take one picture of Hobbes and I can discover Hobbes is in pain with just one picture, or do you have to have like this continuity of a database to go by, for the program to learn what I'm looking for?

**Sanja** [00:06:30]

Uh- hmm, so it isn't cat specific. So if it's your first time using the the app, you can use the app and it will be accurate but the way we trained the model was on a huge database of a thousand pictures of cats. And essentially, the way the model works is we built the model and then compared those results that were coming out of the model to the results of feline specialists. So we had them rate the exact same thousand database of pictures and then compare those results to basically validate the accuracy of the model. So, yeah, there was tons and tons of kind of upfront work in training the model but the nice thing is that if you were to download the app today that it would, it would work for you.

**Stacy** [00:07:14]

So a lot of my listeners are folks that are feeding community cats, colony cats, you know, cats in the backyard and all that kind of stuff. And so, just wanted to ask you what your thoughts are around how could this app be used for folks that are feeding colony cats?

**Sanja** [00:07:31]

Uh-hmm. I think a really interesting thing there is that these people might not have, you know, history in terms of like the behavior of the cat, right? They don't know if it's typically interactive or active or how much it eats on a regular day. And oftentimes, those signals are kind of able to tell you if the cat is well or unwell, but with somebody without that information, this app is a great asset to use it on them and see how they're doing. Because, you know, you don't know, perhaps that cat came over from the neighbor's house. Perhaps it is truly abandoned and needs to be rescued. We've actually worked with quite a few different Humane Societies in trying to, especially during COVID when there was such an uptick in adoptions, they had quite a few returns. Like adoption returns that you know, six days later, somebody would come back and say, oh actually, you know, I don't want this cat, it ruined my couch or whatever it may be. And so, you know, in those cases, where you're taking in cats and it might be a new cat, a lot of behavioral issues can stem from pain and if, you might not know if your cat is in pain. So the app is a great asset in kind of deciphering that cat's well-being. Maybe it needs to be rescued. Maybe it needs to be seen by a vet, that type of thing.

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**Stacy** [00:08:51]

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**Kristen** [00:09:53]

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**Stacy** [00:09:59]

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Neighborhood Cats National Programs Director. To find out the date of the next workshop and sign up, just visit [communitycatspodcast.com](https://communitycatspodcast.com).

**Stacy** [00:11:02]

As we emerge from the global pandemic of COVID, fostering is emerging as the new normal in the animal welfare industry, but shelter management software doesn't provide the tools or the workflows for communicating with fosters at scale. So many organizations struggle to maintain hundreds of animals in foster homes. If only there was a system that was custom built specifically to solve this problem. Introducing Fosterspace, powered by our friends at Doobert. Fosterspace was custom built to allow you to manage hundreds of foster relationships and to communicate with them via text, email, and even Facebook Messenger. Your fosters have a portal where they can upload videos and photos and updates on their animals and organizations can schedule fosters for meet-and-greets, adoption days, or anything else they need. There's so much more to check out. Sign up for free at [www.doobert.com](https://www.doobert.com) and go to the Fosterspace tab to get started.

*-End mid-roll advertising-*

**Stacy** [00:11:55]

What are the general comments? I know you use, you know, the example of the person who developed the app but are there any comments from new subscribers or new folks that use the app for their uses? Do you, they have ideas about how it helps their cats? I've read several testimonials on the website and it just sounds like there's a lot of great stories there. And so, if you have any other stories or even just trying to think about the potential uses or, you know, are there capabilities, do you see this expanding? I mean, how do you see this used all around the world?

**Sanja** [00:12:34]

Yeah. I mean, that's a multi-part question, I'll try to tackle. You know, in terms of other uses, we actually had somebody with seven cats and three of those cats were geriatric. And just a few years ago, he had to put one of his cats down and he said that was a really, really difficult decision because he, you know, it's very hard to know. Am I letting go too soon? Am I not letting go soon enough? Are they living in, you know, so much pain that they need to be put down? And so he's actually using the app to aid in that, you know, really difficult, end-of-life decision making. So he

says, you know, over say a period of three weeks, he's tracking each cat to see if they have, you know, more bad days than good, more good days than bad. And then at the end of that span, you know, if they're, if they returned twenty negative results and one good one, it kind of gives you that peace of mind of like, okay, well clearly, they're not living a happy life. And you know, it makes me feel a little bit better. Of course, in no scenario is that a fun day but a little bit better to say goodbye.

**Stacy** [00:13:25]

Helps give you a bit of peace of mind.

**Sanja** [00:13:26]

Exactly, exactly.

**Stacy** [00:13:30]

To think about that. So in going back to the fact that I'm pretty ignorant about AI, and so I want to go back and clarify one thing that might not be very clear for our listeners too, which is, you know, specifically, you've described it but I'm going to ask you to describe it again. Machine learning is about taking all of those images, thousands, hundreds of thousands of images, and finding consistencies among those images and being able to apply that to our own cats. That's a correct interpretation?

**Sanja** [00:13:59]

Yeah, essentially. Like machine learning is a type of artificial intelligence that essentially allows a computer to learn without being explicitly programmed. And so, an even further subset of machine learning is computer vision, and essentially what computer vision is, is automating tasks of human vision. So, like a great example, would be self-driving cars. Another example would be if you use like Face ID to unlock your phone. And so we're using that same technology on the cats. And so, the really interesting thing about machine learning is because the algorithm continues to learn from new data, it only gets more and more accurate. And so today we have a binary rating kind of a zero or one. Your cat's well, your cat's unwell. Now over time, we expect that we're actually going to be able to build out that rating even further because the machine learning can really pick up on those really subtle facial cues and also patterns. And then you know another hypothesis we have is, is there a way we can suggest what might be going on, based off of different positions in the

face? So, and again, this is absolutely a hypothesis that we haven't validated yet, but is there a certain ear position that indicates that they might be suffering from ear mites? Is there a certain muzzle position that indicates that they might be suffering from tooth decay? So that's something that we're thinking about kind of far down the road but, you know, it's definitely not impossible.

**Stacy** [00:15:33]

So I'm going to flip the tables here. So we're trying to understand what they're thinking and feeling. Is there a way for us to understand how they are interpreting us?

**Sanja** [00:15:44]

The interesting thing about the Grimace Scale is we refer to our app as detecting well-being because the Grimace Scale is pain assessment typically the vets use but your cat will also grimace if you know, you tell it to get off the counter or something like that. And so people are using it to test, you know, kind of mood and behavioral things like, if you move, does your cat like its new area? If you got a new cat, does your cat like that cat? You know, one of our very early beta testers loved putting her cat in costumes and you know the app told her well, guess what? Your cat hates these costumes. So, you know it is really interesting in that way. We had another lady who there's, you know, quite a trend of cannabis products in the pet world right now and she was using some sort of, you know, cannabis-based pain reliever on her cat and she was, you know, really not sure about the efficacy of it. And again, cats are great at hiding their pain, she didn't really know if it was working and she actually used the app to track kind of the before and after of using that serum I guess. And she, you know, she felt like it validated that it actually was working. So.

**Stacy** [00:17:04]

Very interesting. That's very, very interesting. And I, my weakness with regards to adopting cats, historically, has been adopting the older kitties or the untouchables. So I will adopt the semi-feral kitties that have been sitting in the shelter for a while because, you know, nobody doesn't, they want to be able to pet their cat. And I am more of the, I think of some semi-feral kitties as being a step up from a goldfish because you know, you don't touch them but you see them from room to room where the goldfish stays in one room. So which is perfectly fine for me. I'm a, I guess a



personal space person where I did have a cat, Hooch, who was climbing all over me all the time. And I was like, well, who wanted me to get this kind of cat because I was used to cats that were sort of more aloof but this app is a way of really sort of trying to communicate and understand them a little bit better. I mean, my relationship with my semi-feral cats, most of them kind of chirped at me, you know, and they kind of like, would talk to me. Like, I was a bird or something, you know, how feral cats are instead of barking at the birds out there well, you know, they kind of barked at me. So, this, it seems to be just sort of another way of being able to try and cross a bridge and understand what's going on in their mind or potentially. I mean, it's all it's, you know, it's scientifically backed potential. The Grimace Scale, the Feline Grimace Scale, how long has that been around and how was that created?

**Sanja** [00:18:30]

Hmm. Gosh, I'm not sure how long it's been around. I want to say maybe since twenty nineteen but it was created in collaboration with a few different universities. And then, you know, it's really just something that we stumbled upon, and thought, hey, could we leverage machine learning to, you know, do this automatically. Because the assessment like, there is a guide online and, you know, a lot of times vets will actually print the Grimace Scale out and hand it to the cat parent to take home to monitor their cat, but this is just such a more simpler way, right? For an untrained eye, it might be difficult to kind of decipher your positioning and things like that. So, yeah.

**Stacy** [00:19:07]

Very interesting. Very interesting. If folks are interested in finding out more about Tably or would like to get the app, how would they do that?

**Sanja** [00:19:15]

So the app is again, under Tably, T-A-B-L-Y, in the Apple app store. Our website is [Sylvester.ai](https://Sylvester.ai), there's no dot com in there. So if you, you can go there sign up for our newsletter, join our Discord channel. We are on Facebook, Twitter, Instagram as Sylvester underscore Tech.

**Stacy** [00:19:36]

Is there anything else you'd like to share with our listeners today?

**Sanja** [00:19:40]

I'd like to touch on just one more use that we're using the app for. So we actually have a clinic version. That's a two-sided version where a vet will actually prescribe the app to a cat owner, say after a procedure, and then the cat owner will use that app from home. And what's really great is the vet can see all of the pictures, all of the results and if the cat is trending upwards or downwards. And so, what's really great is it's kind of this on-demand insight into that cat's recovery. Because we hear from a lot of vets that the cat might undergo a really intensive dental procedure and then that cat gets sent home and they don't really know how it's recovering. And they might call them, leave a voicemail, the voicemail gets un-returned and so, they really have no idea. And so the vets are really, really enjoying this ability to actually see how the cat's doing. And then the cat parents love the fact that the vet's offering them, this, you know, special personalized level of care for their cat, where they've got that kind of two-way communication of okay, is your cat okay, or does it need to come back in? Is it having an adverse reaction to the medication? Has it ripped its sutures out, that type of thing. So yeah.

**Stacy** [00:20:56]

That's great. That's really another wonderful, practical use for the application. And I think that is really great. So, thank you so much for sharing. Thank you so much for joining us today and for being a guest on my show. And I hope we'll have you on again in the future.

**Sanja** [00:21:11]

Thank you so much, Stacy. It was great to chat with you.

**Stacy** [00:21:15]

That's it for this week. Please head over to Apple podcasts and leave a review. We love to hear what you think, and a five-star review really helps others find the show. You can also join the conversation with listeners, cat caretakers, and me on Facebook and Instagram. And don't forget to hit follow or subscribe on Spotify, Apple podcast, Google podcast, YouTube, Stitcher or wherever you listen to podcasts, so you don't miss a single show. Thanks for listening and thank you for everything that you do to help create a safe and healthy world for cats.

**Kristen** [00:21:45]

Did you attend our recent Online Feline Leukemia Day? We hope you learned some new and surprising information from the presentations that will help you save more cats. Events like Feline Leukemia Day would not be possible without the generous sponsorships of the following organizations: The Tompkins Foundation for Feline Leukemia Advocacy, Humane Network and VetsPets. Would you like to support content that helps save feline lives? Please visit [CommunityCatsPodcast.com](https://CommunityCatsPodcast.com) and click on support CCP, to learn more about sponsorship opportunities.