EPISODE 1437

[INTRODUCTION]

[00:00:00] JM: Substack is a platform for subscription-based content, covering newsletters, podcasts, and soon, video . The design and speed of the platform are notable with a minimalistic format that simply gets creators paid for its work. Substack has gained massive popularity. Chris Best is the CEO of Substack, and joins the show to talk about the platform, architecture and engineering of Substack.

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[INTERVIEW]

[00:00:39] JM: Chris, welcome to the show.

[00:00:40] CB: Thanks for having me.

[00:00:41] JM: You obviously run Substack. And my first question is Substack in many ways is simple. It's a blogging platform or a newsletter platform. To me, the complexity seems like the performance. I guess before we start talking about performance, is there any way in which I'm wrong there. Are there some subtleties of building Substack unrelated to performance that are particularly difficult engineering-wise?

[00:01:19] CB: I mean, I think there are challenges that come with any service no matter how simple once you start to scale it. But I do think that the core thing you're pointing at here is kind of right. I mean, by design Substack is a relatively simple thing. We haven't shied away from using boring technology. I mean, the thing is based on email, which is not hot new tech. And this kind of gets to one of our theories that the thing that we care about is the impact the things we build have on people. We don't build cool tech for cool tech's sake. We build it because we want to help people and have some impact on the world, which isn't to say that there aren't fun

engineering problems. There certainly are. But we're not kind of like going out and looking for those.

[00:02:05] JM: Cool. Well, starting with the email delivery side of things, do you piggyback on hosted email service, like an Amazon email service, or on Sendgrid, or do you handle your own email servers?

[00:02:22] CB: We're on Mailgun right now. And we've been kind of slowly doing more and more of the bits of it ourselves. We're still using Mailgun for delivery.

[00:02:32] JM: Is that cost-prohibitive?

[00:02:34] CB: Not really. And it's it's funny, because all of these – It would be cost-prohibitive if you're paying what these services ask consumers to pay to send email. But most of these developer email platforms get at least somewhat reasonable at scale especially once you compare to some of the hassle they save you. And the nice thing about Substack is that people are paying for the stuff. Like, we have paid subscribers. And sending email is really, really, really cheap compared to someone that's paying five bucks a month for something they care about.

[00:03:10] JM: When you say you're starting to do some of the bits of the email yourself, are there some particular advantages to owning the email stack, the email delivery stack?

[00:03:24] CB: I think, over time, there may be. Like, I think at some point it's probably going to make sense for us to be running all of our own email stuff just because it puts it more in our own control. And we can kind of manage all of the reputation, and IP and all of the details of it ourselves. We've been replacing bits when we just – For example, like, the open tracking wasn't working the way we wanted. So we wanted to do our own stuff for various pieces of it. We've kind of been like replacing the convenience things that the services offer with our own stuff as it's become a blocker for us.

[00:03:58] JM: So I do want to start talking about performance because, again, that was a topic that stood out to me. So can you give me your overview of what happens when I land on a Substack page? Like if I click in from an email, what's going on your frontend and caching

layers? And just give me an overview of kind of the end-to-end stack for loading a particular blog.

[00:04:31] CB: I'll be honest. I probably don't even know the full answer to this anymore. I wrote a bunch of our original code. But my co-founder, Jay, is our CTO, and would be the person who could like delve into this more deeply than I could. I mean, the high-level thing is kind of like what you'd expect, right? There's a CDN serving static files. There's a Heroku application that's generating dynamic stuff. The bits of which that are cacheable we have in cache. And we try to get it all out kind of the relevant stuff to render the page as quickly as possible. But I'm probably not able, to be honest, to walk you through like the exact nitty-gritty because I know that it's gotten a lot better since I was last in that piece of the code.

[00:05:14] JM: That's all right. Can you say more about what you used initially for caching when you built it?

[00:05:22] CB: Very initially, it was just living in Heroku as like a Node.js web app, and it was kind of fine. It's like fast enough. When you have small enough data at the beginning – I think this is actually an interesting meta point, which I think we did this the right way, which is we weren't very fancy at the beginning. It was like this stupid little Node.js plus Postgres thing. And it worked great. And it was quite fast. And it did everything it needed to do. And if we had spent all of our time in those early days trying to kind of get ahead of scale and get ahead of the optimization, I think there's a chance that we never would have earned the right to have those problems. And instead, we kind of spent our time making sure that the software we were writing solved the real need for people, and was working, and was actually like making money, and helping people reach an audience, and go independent, and do all the things that Substack set out to do.

And then, inevitably, you start to hit every performance constraint, some of which are the ones that you would have predicted and could have done, and then some of them that come as a surprise. And I think that kind of being willing to just solve things as you go and fix the things as they come up is maybe an underrated mode of dealing with this kind of performance tuning and scaling.

It's such a tempting instinct, I think, sometimes as an engineer to want to kind of like get ahead of it and like design this beautiful, highly cacheable, highly scalable thing out the gate. And I think you're better off just doing that when you need to. At least that's my theory.

[00:07:04] JM: For the payment system, is it entirely powered by Stripe?

[00:07:09] CB: Yes.

[00:07:10] JM: Okay. Is it Stripe Connect? Was that what you use for the –

[00:07:13] CB: Yeah, Stripe Connect.

[00:07:15] JM: Okay. Is that at all prohibitive when it comes to getting the level of payment to the users that you – Or the publishers that you want? Are there alternatives to Stripe Connect that you can use for providing, I don't know, something with crypto or something, but not really?

[00:07:35] CB: I would put it this way. Stripe Connect and Stripe in general have served us very well. I think there are places at the margins where there are some limits. There's internationalization. There's just how much it costs us. There are things about Stripe Connect that are not perfect, but it's really quite good. And especially in terms of how much leverage it gave us.

Again, kind of the same theory of like we want to be spending our time and energy thinking about how to serve writers and how to like understand them and make this thing that works. And so the less time that we can spend getting all of the minutia of the payment systems right and the more that we can offload that to Stripe, who's done a bunch of this, it gives us a ton of leverage. And it has worked quite well and continues to work quite well.

And I can imagine worlds where we start to do stuff at the margins. We're experimenting with Bitcoin payments. And we don't go through Stripe for that. And I think probably like email, like maybe at some point in the future it makes sense for us to like go back and write more of this and absorb more of this ourselves. But we kind of want to do that like as late as reasonably possible.

[00:08:48] JM: When you moved into podcasting, were there any significant hurdles you had to deal with? I mean, I've worked a little bit on podcast infrastructure myself, and I personally found it to be also quite simple. But I'd be curious to see if there was anything that was strenuous for you guys.

[00:09:08] CB: I can't think of anything that's been super strenuous. You kind of have to learn the constraints of the medium, like what kind of stats are generally available? How do various players work? And what do they allow you to do and not do? Not every podcast player even allows you to add a custom RSS feed, which one would think would be a pretty core feature of a podcast player.

I can't think of anything that's been super unexpectedly tough with that I don't think. And we've had the occasional thing of like we have an RSS feed that we think is fine and valid and some podcast player doesn't like it and we have to go and figure out why. But it's things at the edge. I'll tell you, it's a lot nicer to deal with an email as a standard, as I'm sure anybody who's ever had to send emails knows.

[00:09:55] JM: Do you just say that because of like spam detection or –

[00:09:58] CB: No. I mean, just like even email rendering is still kind of a nightmare. It's sort of like back in the shadow days of [**inaudible 00:10:04]**, because you're writing things with like HTML tables and all kinds of things because you're supporting a whole host of weird legacy clients that are not as up to date as the kind of nice world we live in with people's browsers now.

[00:10:19] JM: Were you able to mostly just use React components off the shelf to build the frontend? Or did you have to – Was there anything significant on the frontend in the initial version that you had to grind out?

[00:10:33] CB: In the early days of Substack, I did some pretty dumb things. And this was me in the very early days honestly learning a bunch of technology. A lot of things that I did ended up being kind of limited by like how many new things I could learn at once.

I have a funny story about the hosting platform related to that actually. But we actually started using Preact back in the day, which was like a React clone.

[00:10:56] JM: Oh, yeah, sure **[inaudible 00:10:56]**.

[00:10:57] CB: And I actually think there was a lot of – Like, in terms of just like download size and a bunch of things, it was nice. But I think, in retrospect, that was a bad decision. And we've had to back out of that to some extent. And so we didn't end up using a ton of like great, the nice pre-built. React libraries I ended up just writing. We ended up writing a bunch of custom stuff ourselves mostly.

[00:11:20] JM: As you've scaled the company, how have you divided up the engineering team?

[00:11:25] CB: So the engineering team reports to my co-founder, Jay, who's our CTO, Jairaj Sethi. He would be able to speak much more intelligently about some of this stuff for what it's worth. Although he's less of a podcast person, I think.

And the way that we've got the team set up is we basically have three product teams of kind of like three to six engineers each that each have kind of a focus area. One of my beliefs is that great things get built by small groups of exceptional people that can work closely together. And you sort of have this size where you don't have so much communication and collaboration overhead. You can kind of like develop trust and develop enough communication without a ton of process to kind of like run fast and do things. And that's sort of what we strive for.

[00:12:11] JM: I'd love to know more from a product perspective and a company perspective. When you think about growth, is there something particularly you – What strategies do you have around growth? Is it mostly just building additional features and building more products within the platform? Because, I mean, I definitely don't see much marketing. I guess is it social media outreach? But is it mostly growing through word of mouth?

[00:12:45] CB: So the way that I think about this is – And this is maybe like a generic product theory that I have on how to do these things, is you kind of want to start making something. At the beginning, you need to have something that's amazingly transformatively better than what

else is out there for like at least a few people. If you're starting out as a new thing, if you're kind of good to a big market, that actually doesn't help you very much. But if you're wonderfully great to a small market, that is a good place to start. And then often what you find is that you can then kind of – By going narrow and deep, you can find the adjacent spaces where if we just added this one more thing, then it expands the people who this would be great for. And you can kind of play that playbook.

And I think that's what we've done with Substack. And the main growth loop that we've had is basically finding writers who are awesome and who would do well on Substack. Going out of our way to recruit them and over serve them and make sure that they're successful and happy. And then the fact is that basically all writers are also readers. And so there'll be some set of people who see that success and see the thing that they're able to do and think, "Oh, maybe I might like to do that." And then we can kind of just like repeat that cycle. And so our repeated challenge ends up being how do we really serve and over-serve these like set of kind of paragon customers who we want to prove that this thing is good for.

[00:14:20] JM: Have you put much work into – Or had to put much work into building moderation tools?

[00:14:26] CB: One of the nice things about Substack is that it puts the writers and the readers in charge, right? We're not serving up a feed of kind of like, "Hey, here's all the things that we recommend you read." In fact, this is kind of the philosophy behind the company, I would say. Like the pitch for writers is, "Hey, this is going to let you be independent. This is going to let you build your most valuable audience. And this is your thing. People are subscribing to you. They're not subscribing to Substack. You're in charge. It's your audience. It's your work. You can do the work that you think is valuable."

And for readers, it's basically take back your mind, right? You don't want to be delegating, giving all of your attention to a feed that's optimized to keep you hooked on it. You want to be choosing for yourself who to trust and who to have a relationship with. So like I'm giving you my email address. And then you're sending me some emails.

And so there are still circumstances under which we might want to intervene in that relationship. But we think that we should have a really high bar. And there's a really easy built-in kind of mechanism that readers can use themselves. Like, if you're getting email, if you sign up for somebody's email list and you don't like the things they're sending you, you can unsubscribe, and you can sort of solve it yourself. So we have to do some.

The biggest one for us obviously is spam. Like that's the thing that's like we need to make sure that no one's using Substack to send spam. And that is for us, as I think it is for everybody, basically like an infinite cat and mouse game that we will play forever and has lots of fun technological challenges within it. But that's really the big one.

[00:15:57] JM: What are the most frequent kinds of spam? Like, crypto scams?

[00:16:04] CB: There's been a bunch of different content. I mean, the two big vectors have been obviously like email spam. So people that want to like – A way to send spam to an email list for a whole bunch of reasons. But the other one that we probably didn't take as seriously as we should have out of the gate as SEO spam. So people who are basically running weird SEO hacks that are trying to like game Google, etc., and making kind of fake Substack pages to do that. And for a while we were like, "Oh, they're not sending email. Like, this is fine." But then it turns out it tanks your search reputation and we had to end up taking that stuff a lot more seriously.

[00:16:43] JM: Taking a detour, you were the co-founder of Kik, I believe. The messaging app? How did scaling Kik compare to the scalability challenges of Substack?

[00:16:57] CB: It was very different. And at Kik, I was the technical co-founder. I wasn't the CEO. I kind of like started out building some of the – Building the Android app and some of the server code, and then like grew the engineering work over time and kind of gravitated towards product, because it was the thing that excited me and the thing that I kind of found most motivating.

When we started Kik, I was in my third year of college. We had no idea what we were doing. It was a complete – We like used some open source XMBP server. And we weren't even in AWS.

We had some physical hosting. And it blew up so quickly. We went from zero to a million users in like 10 days. And we were just sitting there – Like, I was literally like how to cluster a server? Like, I have no idea what I'm doing. And we kind of just like flailed around and solved one thing or another, and it kind of eventually worked. Like, there was a long period where if we were only down like one day a week, we were doing well, which is terrible. But we were just growing so quickly. And we were so unprepared for it.

So from like a technical – We've done so much better this time. It's kind of hilarious. Part of it it's, in some ways, it's an easier problem. But in some ways, we just know so much more. And the ecosystem is so much better than it was back then.

[00:18:28] JM: And would you say that building a newsletter service is harder or easier than building a messaging application? Or just totally disjoint?

[00:18:41] CB: I don't even know totally how to answer that. Like, there's pieces that are hard about each, I think. And there are some problems that are the same. Like, you have spam problems on both. I'm trying to think of something interesting to say about this. They're different. They're different. And we've been able to make it easier on ourselves to build Substack, I think. Some of that might be that it's an easier problem. But some of it, we've made it easy on ourselves. We've given ourselves leverage. We've made decisions that kept us out of worlds of pain. Not that there aren't still. Sometimes does. But –

[00:19:19] JM: Maybe, again, this would be a question that's better served for your CTO. But what have you done to build the recommendation engine for Substack?

[00:19:30] CB: So we actually haven't done too much recommendation on Substack. And this kind of goes back to this principle of putting writers and readers in charge. You don't subscribe to Substack. You subscribe to a writer. And most readers come to Substack for a writer, right? They already read this person. They follow them. They find out about them. They read something that was shared. And they can discover more writers because the writer links to them.

We have done some stuff, and this is something we're going to be doing a lot more of. The only way that we really have right now – Well, there's a few ways. One is that we have these leaderboards, the sort of top-ranking things by category that get generated by just like revenue.

I guess the thing that I think about here is like always designing with the second order effects in mind, right? It's easy to get trapped in thinking, "Well, okay. I'm a reader. I want to find some stuff to read. I'm a writer. I want to get discovered. And therefore, we should just like recommend the popular thing to the people." And that's like an obvious first order thing that would be good.

But what you do when you do that is you create an incentive structure where whatever gets you in that recommended thing is now your job as a writer, basically, because you've created this game that everyone's competing to win at to get traffic, get attention. And so as we build this out, we're very thoughtful about what are the mechanisms that we can use to do this that create the right games, right?

So one example of this we had very early on is we did a leaderboard where it's like, "Hey, well, here are the top Substack's ranked by revenue. Ranked by how many people like this thing enough to want to continually pay for it." And the thing that's nice about that, A, it's like kind of a transparent signal of like what's here. But B, if people want to game it, go ahead, right? Go ahead and make more money. Like, make something that's good enough that more people want to pay for it. The way that you win that game is the right thing for Substack.

And so this is one of our big focuses now. We're thinking about more ways to help introduce readers to writers that they love and value. Not just writers that they click on. Not just writers that they hit some middle engagement metric. And the way that we want to always focus on doing it is kind of like putting the writers and readers in charge and making sure that the way to succeed on Substack is by making stuff that's great and that people think is great. As opposed to, for example, getting something that's going to like push people's buttons and get a lot of retweets or whatever.

[00:22:08] JM: And I guess you're moving into video in the near future. Is that right?

[00:22:17] CB: Yes. Jay – So, my co-founder and our CTO, Jay, wrote a video feature in a fit of peak a couple weeks ago, and it was really good. And it's in beta now.

[00:22:28] JM: It's kind of interesting, because like when Substack came out – And I think you know a lot of people felt this way, and it felt like something that was quite a long time coming. And even after it came out for just writing, you might have had an expectation that something decisively similar for podcasting or for video would come out. But all of the other – I know this as a podcaster who's been in the space for a while. The other platforms like Patreon, for example, or YouTube, in the case of video, there's something about them that is less streamlined than Substack. And I'm wondering if there's a collection of design decisions or engineering decisions that lends to that streamlined sense.

[00:23:22] CB: I do think that this is a product philosophy thing. And it's interesting to me that you call it out, because I actually do think this is one of the decisive advantages we've been able to build at Substack. And it's funny because it's something that – It's the kind of thing. And I think a lot of good engineering is like this, too, actually. It's the kind of thing when you do a really good job of it, it's almost invisible, right? Like, if you design something – If you go over and over and over and like iterate on a design a bunch of times and get contact with reality by showing it to people and like do a really good job of a design of something, you'll often show it to people. And they'll go like, "Yeah, obviously. Like, you spend how long coming up with that? Like, you idiot." Of course that's how it would work. And that's actually that's not something that happens by accident, as anyone who's tried to like design products to be used by humans probably finds out at some point. It's something that it's a skill and it's like something you actually have to like believe in and commit to doing as an organization.

And I think we do a reasonable job at that. And to me, it comes from this same philosophy of kind of being human-centric in what we're doing, right? None of the things we build are there to serve our technology. We didn't build a cool podcasting thing and then think, "Okay, how do we do this?" We started with the people who are using it, a lot of writers who have a podcast. And we thought, "Okay, how would this work? And then how could we make this work for their readers and listeners in a way that took up – That asked as little of their attention and mind as possible so that it gets out of the way and just works and just does the thing?"

And I actually think there's a lot more we could be doing on that front. I think this is something – Building great products is part art and part science. And you have to take both of those seriously. And you have to build teams of people who have enough mutual respect that you can kind of like lean on both of those things. And I think for one of the things I think about in engineering culture at Substack is like everybody getting better at this makes us much stronger. Like, everybody empathizing with the users, everybody – Like, we do customer support shadowing where everybody in the company spent some time talking to customers that have problems with the product and jump in like the discussion threads where we're talking to our users.

And the reason for that is – Part of it' is like just a cultural thing to remind us that we have a culture of service, and this is why we're here. But part of it's practical. But if you're an engineer and you have not just the technical architecture in your head but you also have this map of the people that you're building this for, and what they need, and what they care about, and how they think. And you have kind of the philosophical context of the company and why it exists and where it comes from. That actually enables you to make much more impactful things than if you're just a technologist that has to wait for someone else to tell you what to do.

[00:26:24] JM: As far as the changing media landscape, there has been this sense of animosity towards Substack from established journalistic outlets. And to give the most credence to the critics that come from those established journalistic outlets, I think probably their strongest argument is a lack of maybe editorial oversight for newsletter content. And I wonder if you have any perspective on, I guess, the difference between what makes good editorial content versus what makes good peer-reviewed journalism, and the gradient between the two.

[00:27:18] CB: One good editorial content – I don't know you can draw a sharp distinction there. I think the thing that we think about at Substack is that the people that do well on Substack tend to have a distinct perspective or something about what they do that's not fundable, it's not replaceable. It's not like there's this information that I could be getting anywhere. And this is the like best way for me to get that information. Nobody signs up. Nobody pays for a Substack because they don't have enough email, they don't have enough things to read. That's a problem that zero people have.

And so the thing that is at the core of what makes a Substack valuable is I've got some relationship with this author, this thinker, this editorial viewpoint. I understand something about how they think or what they know or how they see the world that I find valuable and worth spending my attention on. It doesn't mean I believe them. It doesn't mean they're right. It doesn't mean I necessarily agree with everything they say. But I've decided that this is worth spending some of my time with.

And I think the thing that a platform like Substack does that wasn't really possible in previous ages of media is return that power to readers to decide for themselves who they want to invest that attention with. And we at Substack don't see our job as telling people where to invest their attention and having opinions about what exactly what that should be. We see our job as helping them make that decision for themselves by their own lights as best they can, as their best possible selves, right? Not making the decision as they do one more scroll before they fall asleep and like whatever jumps out of them is the thing they're going to click on. But sitting back and thinking, "Which voices do I want in my life? How do I choose my own heroes? How do I construct my own view of the world? And who am I going to want to read and listen to?" And I do think that provokes some annoyance among the previous generation of platforms that just got to take that stuff for granted, where it's like people are going to read my thing because this is the thing to read.

[00:29:35] JM: How do you see the narratives when you look at like the common section of Substack versus the freewheeling debates that go on in Twitter? Is there a difference in tonality and a difference in what you see in just the person-to-person communication?

[00:29:59] CB: Yeah. We see this a lot. And I get back to this idea of designing for the second order effects, right? Designing not just for what can I do with this product immediately. But given that this is what's possible to do, what ends up happening? I think there's a few things that we – Few advantages that we can have there. One of the most interesting things actually is you don't even have to comment on a Substack newsletter. You can also just reply to it.

And one of the earliest pieces of feedback we got from people that were heavy Twitter users that switched to sending out a newsletter and then some people would reply is the tenor of the response that I get from people replying to me is just completely 180 degrees different than

what I can expect when I tweet about the same thing. And in that case, I think it's just the – As the person replying, you're just doing it for different audience. If I'm replying privately to you, I kind of have to convince you. I'm like, "Here. This is something that I'm going to invest my time in to talk to you about." Whereas when I'm on Twitter, that I'm performing. I'm performing for – It's not really about you. It's about you, the broader audience. Like, I'm kind of like out there trying to get my own status and get my own message out by exploiting the dynamics of the platform. And so in everything we build, we kind of try to like set these things up so that, without heavy-handed moderation or with sort of minimal need for moderation, the dynamics of the system pull the right way.

One example of this is, by default, if you have a paid publication on Substack, you can publish stuff for free. And this is still that everybody still publishes stuff for free. It's really good. You can put some stuff behind the paywall. But we encourage you to put your **[inaudible 00:31:40]**. But by default, comments are only turned on for paid subscribers.

And even just that is a huge difference, right? The people who are here are the people who are invested in being here. And if you want to come and be a jerk and mess with the – Try and disrupt what's going on, well, as an author, you can profitably moderate comments at 10 bucks a pop or five bucks a pop. Like, that's pretty easy to do. And so you kind of get this – You have a community of people that have paid this costly signal to say that they all care deeply about this thing. And that's just a more interesting community a lot of the time than like whoever might respond to a tweet or whatever.

The other thing that it does is it makes clear, like, whose space this is, right? Within a writer's Substack, they're sort of the benevolent dictator for life. And this is part of our philosophy on moderation. It's not that there shouldn't be moderation. But it should be like the author gets to choose this. They get to say, "This is a place for a freewheeling debate. Say whatever you want you know," whatever. Or they can say, "Hey, we want to be all really nice to each other here," or anywhere in between. And they already get this advantage of having people who actually want to be there and feel like a community and care about the same things. And they can kick people out.

And I think when you set those systems up correctly, you can make a much better environment.

[00:33:11] JM: When you go beyond the product vision of subscription, paid-based newsletter, podcast, video, what else can you build in Substack? Like, can you give me a sense of where the product vision goes beyond that?

[00:33:32] CB: I mean, I would like to say you've just described an absolutely enormous thing. Like, okay. So we've got paid writing, and audio, and video. I actually think that that – Even just paid writing. If you look at like how big the newspaper industry was at its peak, it's a tremendous thing. You add audio and video, that I think it's huge.

I do think there's more that we can do. Like the other things that I think work really well in the Substack model of kind of like this valued relationship or like live streaming, live events, sort of live interaction and like community stuff. One of the things that's interesting about Substack even just for the written stuff is – Not every Substack, but many of them have turned into this community space that becomes almost as valuable as a community as it was as just a newsletter where the author and the writing serves to kind of put up the bat signal. And that bat signal attracts a community of like-minded people who then start to talk to each other and get to know each other.

And the fact that there's a paid component or some way to show that you're in it creates this valuable sort of sense of commitment, follow people. Anyway, that community itself can end up being quite a valuable thing. I also think there's lots that we can do at the layer of the platform to make all of that more powerful, right? The company is heavily built on email, because email is a place where you can have a direct relationship. It's one of the last places where you have an app on your phone that a writer can reach readers unmediated by an attention monster algorithm basically. Modular the Gmail algorithm, which sometimes a pain in the butt. But whatever. It's like basically email and podcast are kind of one of the last places where you can have a direct relationship between a writer and a reader, a podcaster and a listener. And I think we can do more to unlock that too, which could be exciting.

[00:35:38] JM: As someone who's, I think, probably roughly my age, do you feel like those attention-grabbing algorithms – And this is kind of a cliched question. But the older I get, the

more pernicious I feel these things have been to my life. Do you think the news feed algorithms have played a role in, I don't know, affecting your mental state in a negative way?

[00:36:05] CB: Yeah, I do think that. It's one of the reasons that I was excited to work on at this company. I have a love-hate relationship with Twitter, where I like it, and I like that it connects me to a wider world of ideas. But it does kind of feel like smoking for my brain. But I go through this loop where I like install the Twitter app on my phone and then I eventually find myself using it a lot more than I want to, and it's kind of deranged me, and I have to uninstall it for a while.

I do think these products, because of the business model, because the business model is get as much of your attention as possible, then auction off a slice of it. They're designed to be addictive, right? They're designed to be superficially compelling. And it's not that you – Nobody's forcing you to use Twitter. It's still your choice, but it tries to get you to choose as your worst self. It's like a slot machine or like a cheap junk food candy that is delicious and you're sitting there eating it, but is not actually the most nourishing or the most satisfying.

And I don't think any of these platforms can fix that from the inside because it's baked into the business model. And even if one of them started to defect, it would just get out-competed, right? Like, if YouTube becomes less addictive, TikTok is going to come in and take over. And TikTok is like the even more distilled version of this.

And so our theory with Substack is basically the only way to win that game is not to play. We have to have a different idea. And the pitch to readers is going to be, "Look, this is a different place that is going to help you take back your mind." And it's not that we don't want to be compelling, we don't want to be exciting, we don't want to be nice to use. That's all good. But we're not going to try and make it as wildly addicting as these other things. We're going to make it a place where you can actually spend your attention in the way that you find deeply meaningful, not just superficially exciting. And if we can make that good enough, we can make that like a plausible choice that you can make. And so I have felt this in my own life. And I actually think it's one of the like defining things of our time especially as we went through this pandemic where everybody spent more of their life on the Internet. I think it's driving people crazy.

[00:38:18] JM: And from a company perspective, how has the pandemic been for you? How's the organization of the company adjusted to going fully remote?

[00:38:34] CB: That was a challenge. I think we've done a pretty credible job of it. And we're going to have a hybrid contingent of the company forever now. Like, we're never going to be not have a remote sort of like big arm of the company now that we've learned how to do it. That took a lot of adjustment. And I think we're get getting to be a decent place there.

I mean, in terms of the business, it was actually a tailwind for us, because there are so many more people that are spending so much more time online. Like, we grew 6X in the first year of the pandemic. It was kind of a wild thing.

[00:39:10] JM: As a team, you grew 6X?

[00:39:12] CB: No.

[00:39:13] JM: Or just traffic-wise?

[00:39:14] CB: [inaudible 00:39:14]. We didn't quite grew 6X as a team. I think there were 10 of us in February 2020. And we're like now.

[00:39:26] JM: When you were building that first version of Substack, is there any particular engineering problem that stands out as having been particularly difficult?

[00:39:38] CB: I'll tell a really pathetic story here. I'll see if I can think of a better one as I tell this one. But this one's really sad, is when I first clicked like file new project to try to muck around with Substack, I started it as like a Python thing in App Engine. Because I played around with App Engine before. And I kind of knew some of the scaling properties. I thought it was nice.

And one of our first writers had a lot of Chinese and his newsletter, like, Chinese characters. And I was trying to like get my Python strings to like render the Unicode correctly. And I couldn't switch to Python 3, because at the time App Engine didn't support it. And I just literally couldn't be bothered. Like, I couldn't learn Python strings. And so I gave up and rewrote the whole thing

in Node. And we're using Node to this day because of my pathetic failure. So that was a technical challenge I remember being quite interesting.

Let's see if I can think of one that's like actually good and not just terribly embarrassing for me. What's been fun? I mean, lots of the normal scaling stuff. Lots of like fun database stuff. Lots of fun find the next bottleneck. Sorry. I wish I had better stories. My co-founder, Jay, has done all the smart things. I've only done the dumb things.

[00:40:49] JM: So what have you had to say no to? Are there any particular features that were on the table and you were really tempted to say yes but you had to say no?

[00:41:01] CB: All the time. I mean, I feel like – And this is part of this. We talked about simplicity being a key feature, right? Something that everybody really values even if no one or a few people consciously value it. I feel like we've been in a position for a while at Substack where there are so many exciting surface areas of opportunity. And the limiting factor is just like how many of these can we put a first-class effort into to like actually do it? Because if you try to do too many things at once, you end up not succeeding at any of them. I mean, even like podcasting and video.

Like, we just did a video recently. We've known for years that video is going to be a cool, exciting thing. Like, "Look at this huge like world of things that we could unlock by doing it." But it's always been – We've always been really focused on that idea of like going deep first, right? Making something that's the best thing in the world for a relatively a small group of people and then expanding bit by bit. Like, we added podcasting. And once we had a lot of writers who wanted to start a podcast. And I think that that's the right way to go about it. I'm trying to think if there's anything that's like a particularly compelling example of that. It's just constant. Like, we have a list of like 30 things we'd love to do. And we got to do like four of them at once.

[00:42:19] JM: There was kind of I feel like a glut of movement towards these integrated newsletters after Substack came out. Twitter had their newsletter thing .

[00:42:32] CB: Up, Twitter bot review. Facebook cloned us in loving detail. One of our engineers with Bulletin, one of our engineers – We had a hack week where people like build

whatever random thing they've been wanting to. And it's just a good – Or a hackathon. We'd make creative stuff. And one of our engineers built like a reading progress indicator and put it in just for fun. And Facebook could copy it within two weeks, the exact same feature. It's just a beautiful thing.

[00:42:59] JM: What I wonder is it's easy for us in Silicon Valley to identify when a copycat product comes out. But I wonder what the ability to persuade their existing user bases who don't know about competing products is. Do you have any indication of what market they've been able to snap up by jumping on and kind of tacking on a Substack-like product?

[00:43:31] CB: I don't think that either Twitter or Facebook has cracked this yet. And they've managed to recruit a few good writers that we wish could be on Substack. I think there are times when that approach works. Like, I think, Instagram copying Snapchat stories, or even Twitter making Twitter Spaces as a clone of Clubhouse. Like, sometimes that stuff works.

The thing that I worry about though for us is not so much Twitter and Facebook or any of the existing big things, but all of the exciting energy that's unlocked in the space from new companies, right? I see lots of pitches that we're Substack for X or Substack for Y. And I'm like, "I do believe that's a good idea." Like, this is a model we know is going to work.

And I think someone who's doing it as their life or death main thing is always more likely to succeed than someone that's doing it as a tack-on, especially with a case like this where Substack is not a thing that ought to be a feature of Twitter. It's a complete negation of Twitter. It's like a complete alternative. It's a complete – Like, don't do Twitter. Do this thing instead. A complete different business model. A complete different idea. I don't think you can like do that off the corner of your desk.

[00:44:45] JM: Well, as we begin to wrap up, I'd love to know if you just have any thoughts on the future of media that have come to mind recently. Any recent ruminations or conversations you've been having given you're kind of in this epicenter?

[00:45:00] CB: One thing that's just kind of like a high-level thing is sometimes people ask me like isn't there some limit to how much people will pay for Substack? Or like are people really

giong to pay for things? And that was really the big question at the start of the company. People would be like, "Oh, it's a great idea. But no one's going to pay for it."

I think there's a specific answer to this, which is like when I'd ask people. They'd say, "I'd never pay for something." But I'd say, "Well, who's your favorite writer?" They'd say so and so. I'd be like, ""Would you pay for them?" They'd be like, "Well, I pay for them. But that's a special case." So there's this fun like cognitive illusion there or whatever you would call that.

But just like the bigger argument to me is like how valuable is this stuff? How valuable is our culture? And are we, as a society, over-investing, under-investing, or investing about the right amount in great writing, great thinking, great art, great media? And to me, the answer to – Like when you put it that way, the answer to that is it's really clear. We're dramatically under-investing it. And a lot of what we do invest gets misinvested. It's not actually set up in a way to foster great writing, great thinking, great art.

And so I'm actually like just as a category and as a field of human endeavor, I feel like we're in this space that's just so potentially massive. And we have not come close to like unlocking the potential of the Internet with this stuff. And so it's just going to be – Both with Substack and with just the wider world of this stuff, I think there's going to be a wild time.

[00:46:32] JM: Actually, okay, one more random question. Why do you think video podcasts never took off?

[00:46:38] CB: Did they never take off? I mean, there's a few that are really good. You could argue, Joe Rogan's a video podcast.

[00:46:43] JM: No. I don't think anybody subscribes to Joe Rogan on RSS. The video podcast.

[00:46:48] CB: I don't know. I think that there's probably like different ways that you want to consume things. And I think podcasting is actually the most distinct in my mind. Like reading and video are in some ways closer together. Because the thing with podcasting is that people listen to podcasts like in a different setting. Like when you're in your car, or you're commuting, or you're doing something where it really is like just a completely different mode. And when you sit

down and listen to a podcast, you're not like, "Am I going to listen to a podcast or read something?" You're like, "I'm going to listen to a podcast."

And so I suspect that there's like the way that we got to podcast I think is path-dependent and there could be a bunch of different ways you could do audio that'd be interesting. But I think this idea of like audio-first being its own special thing is a real thing. I think that's like because of the properties of how people want to consume stuff. That'd be my hunch. But I don't pretend to have a good answer to that.

[00:47:44] JM: Well, Chris, it's been a real pleasure talking to you. And as a Substack user, I'm a huge fan of the platform. Thank you.

[00:47:49] CB: Thank you very much. I really appreciate it.

[END]