Chris Strahl:

Hi, and welcome to the Design Systems Podcast. This podcast is about the place where design and development overlap. We talk with experts to get their point of view about trends in design, code, and how it relates to the world around us. As always, this podcast is brought to you by Knapsack. Check us out at knapsack.cloud. If you want to get in touch with the show, ask some questions, or generally tell us what you think, go ahead and tweet us @TheDSPod. We'd love to hear from you.

Hey everybody. Welcome to the Design Systems Podcast. I'm your host, Chris Strahl. I'm here with Adekunle Oduye, he is with Plaid and works on the Plaid design system. Welcome to the program.

Adekunle Oduye:

Hey, what's going on? I'm glad to be here.

Chris Strahl:

Why don't you tell me a little bit about what you do at Plaid, and the Plaid design system, because this has got some interesting leans to it that are a little different than most design systems

Adekunle Oduye:

Yeah, for sure. So I'm a design engineer on the Plaid design system. We're a team of five, two design engineers, two designers, and then one design technologist. And, yeah, our goal is to basically build a lot of reusable, accessible components and whatnot. But the thing is, when people think about Plaid, they think about, "Oh, it's like a API." There's no real UI, but we have a lot of products like Link, which is what you use when you want to connect your bank account to Venmo or any other financial apps and whatnot, and then we're starting to have more dashboards for developers and all that stuff. So our consumer facing products are expanding, so that's how we have a design system team right now.

Chris Strahl:

Yeah, it is interesting because when you think about Plaid, I mean, I can see the logo in my head, right? I remember that and I remember all of those steps of connecting my bank to Venmo or to whatever service that I require some sort of financial connection to. I even think when I'm doing some credit checks and stuff like that, like when I'm buying something on the Google store or whatever, right? And so I can very easily visualize it, but I don't think I've ever gone to the website and tried to experience any of that consumer product, but obviously there's somebody doing that. And I think it's interesting in particular when UI is in the background of what a user is trying to do. How do you think about designing for that?

Adekunle Oduye:

It's interesting, because even though we're not the end product ourselves, we're basically a product that serves other products. So a lot of times what people will do is they're like, "Hey, we're doing something where we need to get people's information," and usually once they start that process, there will be some sort of iframe or Plaid workflow and whatnot. And in some cases they want to theme it to their liking so that users are not distraught, because they'd be like, "Wait, what is Plaid? Why does this look so different," and whatnot. So a lot of this is trying to figure out how could we be integrated into other products and be very seamless, but also a little bit promote what Plaid is, because I think a lot of times

people, if they see Plaid for the first time, I know when I first used it, I was like, "Wait, I'm not giving my credit card information to this company. I don't know this company."

Especially with passwords and all that stuff, especially for banks, the last thing you want to do is just give it out to some company and then they'll take advantage of it. So I actually had to do my research before I was working at Plaid to understand what they did, and I was like, "Okay, it makes sense." And I think even for right now we're getting to a point where we're driving the initiative of having accessible APIs for banking so that it makes it easier for big companies like Bank of America or Chase to mom and pop credit unions for people to transfer their money from their banks to these other products and whatnot. So it's invisible, to a certain extent, but we still have a lot of dashboards that developers use that we're able to be more intentional with our designs and be more visible.

Chris Strahl:

It's fun to think about this idea of how do you have a brand that highlights other brands, but also still has to have its own system of trust baked into it. And it's funny you mentioned you're a product that serves other products. That's how we describe design systems at Knapsack, where design systems are products that serve other products. And so it makes me want to be like, "Well, if you were Plaid using Knapsack, you'd be using a product that serves other products that serves another product system that serves your end customer." I love how meta design systems get really, really quickly.

Adekunle Oduye:

Yeah, I think that's one of the interesting challenges now compared to my previous design system experience where it's like, "This is how a button should look like. This is how this heading look like." We have to be more flexible because different products have different needs, and sometimes you want to give the consumers, or even our product engineers, the ability to make changes when necessary. So flexibility is the key because again, we're super meta where it's our product that serves a product that serves other products. So they might want to be like, "Oh, I want to change this button because I'm Venmo and all the buttons should be blue." And we'd be like, "All right, we have to support that within our system themselves," which could be tricky because the more flexible it is the harder it is making sure that you have a cohesive design language. But it makes sense, especially in our use case.

Chris Strahl:

So you'd mentioned other systems you'd worked on in your career before. Have there been any that have been like Plaid, and maybe take us through that journey of how you got to this position that you're in right now.

Adekunle Oduye:

Yeah, for sure. My first experience working in design systems, and obviously I worked doing a lot of style guides, and this is when I was doing graphic design work, but I think the first time I was actually working on design systems it was when I was at Nasdaq. The interesting thing over there was we were basically serving financial products, and a lot of the products are data heavy because our main customers was basically hedge fund managers that basically want to know... Like if I'm at Coca-Cola, I want to know who has ownership in my company, and that could be thousands of different corporations, individuals, and whatnot.

So that was my first experience with design systems, and then eventually after that project I worked on a database system, I would say. That was a very interesting challenge because I thought I knew everything about charts and graphs and whatever like that, and when I was diving deep into it, I was like, "Oh, I have no clue what I'm talking about." But it was interesting, because it allowed us to systemize the process of displaying data and also educating people about the different data models and different graphs, and when to use one or the other.

Chris Strahl:

Was it the visualization part that was the epiphany, or was it broadly just the idea of how people think about displaying complex data on the internet?

Adekunle Oduye:

I think it was a little bit of both, because in some cases we had area charts, they were very visual, but also it was hard to navigate. So a lot of it was understanding the process of creating good data viz, and a lot of it's understanding the data. And then once you understand the data, you can really understand what types of visualizations will work for that. And also it depends on the story you want to tell. So in a case where we wanted to walk you through the process, and then give you the right tools and patterns in place that allow for you to take the information and create that visualization and help tell that story.

So I would say that was probably the biggest challenge I ever had when working in design systems, because it was super new for me, but also I think what made it better was having a great team to work with, and I think that was the first time I worked with a content person. I was like, "Whoa." A content person and design system is the key, because we would write documentation, and she was like, "Wait, it seems like you're talking in a foreign language. Break it down." And I think that helped us be more approachable for anyone within the organization to understand.

Chris Strahl:

So that's really interesting. You went from essentially doing graphic design and style guide work, producing presumably PDFs or Photoshop files of how things should look, to actually working on this systems team. And that first exposure you had something that was very data heavy, something that was very visualization heavy, and you also got to work with somebody on the content side to help you shape the language of that design system. How was that first experience? Maybe give us an idea of what it felt like going into it and then what it felt like coming out of it.

Adekunle Oduye:

Yeah, I think going into it, I was unsure. I was like, "Well, I've done style guides before. I should be able to do it. It should be the same thing." And I think the difference was there's a lot of aspects around interaction, animation, and especially around dashboards that we were creating, a lot of it was data heavy so we actually had to be very mindful of how we want to display data and whatnot. So it was a lot of thinking about, all right, what makes sense, but also understanding who's using our actual design system, because I think one of the bigger mistakes I made was like, "Oh, I'm designing for myself." And I was familiar with design. I was familiar with codes. I'm like, "Okay, I could make this work." But then one of the biggest pain points was sometimes it was too technical for non-technical designers to be able to use it, or sometimes it was hard to use the system overall.

So that's where I started to really understand really taking account for understanding your users, doing your user research, and testing your design system. Because I think oftentimes people design for themselves, which is cool, but I think at the end of the day it is a product itself, so you want to act like a product where you do small iterations and you test and you validate and you get testimonials and whatnot, because I think that will help you validate that you're going down the right direction. And also, if anyone from the business side wants to say, "Well, do we need a design systems," we have enough information to back up our work. So that's the thing I came out of it where you want to be scrappy in the beginning, but also making sure that you're gaining feedback and validating as quick as possible.

Chris Strahl:

I like what you said there about considering the business case for the design system, in particular this idea that there's some justification that you have to make for why the decisions you're making really matter. And it was also interesting to hear you talk about some of the stuff that was challenging at the beginning, right? The idea of things like states or animation or all those things that are difficult to represent in design tools, how you represent those in a design system in a way that doesn't feel too technical, that is still approachable, but ultimately is not very easily represented in something like Figma. And so maybe let's explore those things one at a time. Let's talk about first this idea of this transition from working in design tools to working in design and code, and some of the things that you could do in the design system that were not as easily expressable in your design tool.

Adekunle Oduye:

Yeah. A lot of it was around interactions and animation. Even when I was working on that design system, I think we were still using Photoshop. This is before Sketch, so this is super old school. There was a lot of tools that show animations and how to do them and interactions, but I found it super useful just to build out a sandbox and be able to demonstrate the animation but also have other people test drive it. And I think from there that was a way for us to get buy-in as a team, but also it could be a teachable moment because we can teach the technical aspects of it and really making sure they're aligned from both a design perspective but also a developer's perspective, making sure we're using the same language overall. And then for interaction, I think it's the same thing where, again, a lot of the stuff we do is not static, so you're going to click on specific things, things are going to pop up, whatnot. I used to use After Effects and all that stuff to demonstrate it, but also it's not showing the actual experience overall.

So that's why I think my goal is always to show how the end experience is going to look like, because that will ground people and ground ourselves to see this is how it's going to look like versus, hey, this is how it might look like, but it might not be as smooth because we're using web technology and it's not going to be that clean. We're not going to be able to animate specific things that way, because also animation is a hit to performance, and I think that's another thing I always want to demonstrate where it's like we could animate all this stuff, but keeping in mind of how it's going to feel from the end user is super important. So I think that's why, especially making that transition was super hard.

But I think making sure that you demonstrate it well enough, not only to yourselves but your team, was super beneficial because it allows you to iterate and move forward. And also if you want to test it with users and whatnot, you are able to do that in a way that they can interact with it versus if I'm using After Effects or anything like that where it's more of a demonstration, if that makes sense.

Chris Strahl:

Yeah, certainly. I mean, actually being able to see something in the medium it's destined for is really powerful, because you can do all sorts of stuff with video playback that is a facsimile of what's going to happen in a user experience, but it isn't the user experience. And one of the things that I always had a really hard time with was something as simple as timing, right? What does a 200 millisecond versus 600 millisecond fade in look like on an actual website, right? And having to go through that process of, okay, let's update the code, so that timing changes. Let's do another build, and then let's actually see it live. Eleven minutes later, you don't remember what the difference between 200 milliseconds, 600 milliseconds is. And so the ability to do that in a design system now where you're actually using code and you're just injecting that variable in runtime, we've come so far.

Adekunle Oduye:

Yeah, it's wild.

Chris Strahl:

So shifting gears away from the technical details side of it. That's a really good case, by the way, for why design systems matter and a practical transition point. But now thinking about that business case behind why people build these and why they're important, one of the things before the show that we talked about that I thought was really interesting is you constantly refer back to the business reasons why these things exist. So in those early days, what were those business reasons? And then as your career has progressed, have you continued to highlight those? Talk to me about that.

Adekunle Oduye:

That's something that it ingrained in me, especially the first time I was working design system, because working in a big corporation, you actually have to fight for pretty much everything. We have to fight for to do user research. We have to fight to just exist and whatnot. And even before I was going to get into design systems, I used to do a lot of prototypes and design very quickly and whatever like that. At the time, we had some sort of UI library, but it wasn't as mature as we wanted it to be. And the problems we kept on facing was it was preventing us to take ideas from concept to completion. And also there's around things around accessibility and whatnot. And there's some stuff that when you're building workflows or looking at particular views, you don't want to keep on thinking about the same thing about how buttons can look like and all this stuff.

It's weird because I think oftentimes I remember back where we had discussions about, "Oh, should the button look like this and that?" And in my head I was like, "I don't really care because I'm down to use whatever people want to use and then just focus on solving problems for the user." So I think that's the first case where it's the less we're focusing on how it looks like, then the more we can focus on, hey, is this thing going to solve people's problems? And I think that's the idea where it makes it feasible to move fast and also have some sort of production quality built in so that when you have to productionize it and whatnot, you don't have to spend a huge amount of time to do it. So that was the first business case around that. Ever since then, it's been a habit for me anytime I'm starting a new design system to do research, get understanding of the business goals, the needs, what people are struggling with, and figure out how the design system can influence those projects, because then you can prove the impact to the business.

So even right now, working on dark mode, and dark mode's a accessibly win, but also a lot of clients been asking for it. So doing that within the design system is directly showing that we're being impactful to the business overall. I always tell people that, especially when they're starting the design system, it's

like don't really necessarily focus in on the frameworks and all those other stuff. I was like, "Understand the business and what are the specific pain points, and figure out how the design system can resolve those pain ones."

Chris Strahl:

Yeah, certainly. Hearing you talk about this, it reminds me of the practical justifications of user effectiveness, right? There's this cartoon that I love that is all about a bunch of different tasks, and they're represented by balls, right? And the big hard tasks are huge, right? They're these big balls, and the little easy tasks are these little tiny dots, right? And they're all lined up in a line behind a velvet rope to get into a club. And the bouncer's like, "All right, everybody line up by order of importance." And the very first thing in line is the biggest ball in the entire system, and he is like, "Okay, nevermind. Everybody will line up by difficulty," and then it's all the small balls line up first and then the big balls later on. And they let all of the little balls in and then it gets the big ball that's really important and he closes the rope and he says, "Sorry, we're full." And that to me perfectly indicates this idea of human nature and how it oftentimes conflicts with business value, right? You want to do that big hairy thing.

We have all these little things that basically show that you've made some progress, like, "Hey, we did a thing, we did a thing, we did a... There's people in the club. We let them in." But it's not the most important thing that you could be working on. And oftentimes by the time you accomplish all those little things, it takes so much of your attention away from that big thing that is really important, you end up in this place where you're not really business aligned. And I think that your idea of starting with research to really understand what those priorities are, that helps you be able to set expectations of the business, like, "Hey, we're going to go tackle this really big hard problem. It's going to take a lot of attention. It's going to be a little while before it gets led in the door, but at the same time, it's going to be really, really valuable for this company."

Adekunle Oduye:

Yeah, I totally agree. And I always like this quote I have where it's small steps, great distances. The reason why I use that, especially around design systems, is because oftentimes people want to do these major redesigns and all that stuff and I'm like, "All right, cool. This is what you want to do," and then just break it down, break it down, break it down. So it's like, "All right, what are some things that could be quick wins?" And this is something I've done in one design system where they had like 20 different types of buttons. It's like, "All right, cool. One great small win is to create a button component and basically replace all the instances and whatnot."

And they were able to show, hey, oh, it's make it super easy to update all those buttons, but also we were able to show that the actual performance improved because we were shipping less code and whatnot. And then we were just building on top of that. And little by little until you look at it and you'd be like, "Oh, it's a totally different thing, the user experience, but also the developer experience is way better."

Chris Strahl:

And nobody ever has to think about the button again.

Adekunle Oduye:

Exactly. That's the one thing I truly despise where it's conversation about a button because it's so simple, but also it's difficult at the same time. And I remember in one case we had 130... This is when we were using Basecamp 130 comments about buttons and the styles and whatnot. And I was like, "Yeah, I rather not think about the button." I was like, "I use whatever button people will use. At the end of the day, as long as it works properly and it's accessible, that's all I care about." I feel like that's the intro into design systems, figuring out the button or also button versus the link and all that stuff.

Chris Strahl:

Yeah, the designer's bike shed, right? There's this great idea that I have for a piece of swag to hand out at a conference at some point that is a button that is of a button so you can have that meta association of the design system with the thing that we all hate to argue about most in the design system, which is the freaking button that everybody feels like there's a hundred hours that went into deciding this button pattern that has been a solved problem across millions of companies and websites over the past 20 years. Why are we reinventing the button and spending a hundred hours on this? So eventually I'm going to hand out a button swag of a button.

Adekunle Oduye:

This gets back to the business talking point where it's like, can you justify it to the CFO or whatever? "Yeah, we're going to spend a hundred hours figuring out the proper button styles," and they'll probably just look at you like, "That doesn't really make sense." So that's where you want to think about it from more of the business stand, but it's like, is this something I should be working on right now and is it going to be the most impactful to the actual business? And if not, then you probably want to focus on something else. And that's how I prioritize what I'm going to focus on. If you don't, then you can literally spend six months designing buttons or icons and not really showing impact to the actual business.

Chris Strahl:

Yeah. I was reminded of that XKCD comic where Randall Munroe is talking about if you put two people in isolation together for long enough, they'll develop strong opinions about pretty much everything. And it's two people that get locked in a room with nothing but pictures of Joe Biden eating a sandwich, and they have strong opinions about which photo is better. And human beings will argue about anything, man. I mean, you put them in Basecamp and you say, "We're going to talk about a button." That's going to get 132 comics. But at some point there is this step back about is this actually valuable? And I think that one of the hard parts of it is that isolating feeling that happens in a lot of these organizations about, "Well, if I'm not working on the button, then what am I working on?" And then you look at that big hairy ball and you're like, "Wow, that's a big hard problem. It's going to take me forever to tackle that, so it's easier to just make another comment about the button." How have you solved that problem?

Adekunle Oduye:

Yeah, I mean, I'm a big fan of working with your users. So as a design system person, I've done the cases where I just worked with a lot of product folks or product engineers or product designers on building problems and whatnot. I didn't realize it until I got out of design system. I was doing mostly prototyping product design work, then I got into the design systems. Sometimes you work in a silo. It's like you think this is a problem, but it might not be a problem. It might be a problem for you, but it might not be super impactful for your consumers. I worked with a lot with product designers prototyping examples and actually using the design system itself, and then I could see, "Wait, this doesn't make sense. We should

improve this," or, "We need to include that into our design system," because that's in the case where we've seen the problems they're facing and then basically creating solutions for them and whatnot.

Chris Strahl:

So your idea is to try to move beyond the abstraction pretty quickly, right? Instead of let's all argue about a button, let's actually use the button in context for solving a user need, and then see what problems we run into. And those are the things that are important to tackle, not the 400th button state. And by the way, I agree with you. I think that it's akin to what you were saying a while ago earlier in the episode where you were talking about how it's oftentimes difficult to realize that my problems are not necessarily the business's problems. And I think this is another example of that where you're basically saying, okay, so we have this abstract concept, vis-a-vis a button, how do we actually get some concrete implementation of that that we can learn from?

When you think about how you move into that practical space, how do you bring others along with you on that? When you think about working with that product designer or working with that design technologist to go from more than just, "Here's a collection of components," to, "Here's a finished experience using the design system," what really galvanizes that for you?

Adekunle Oduye:

I have an approach where you focus on building the right thing, then you focus on building the thing right. So it's very hard, especially for me, working abstractions, because there's no proper context and whatnot. So I've done in a case where I worked with the designer, we wanted to set patterns for pages and the different types like that. So what we basically did was we just created a prototype of all these different pages, and mind you, sometimes we were using the design system, sometimes we had to break out of it because it didn't fit the use case, and then we got feedback on it. We were like, "All right, we're going down the right direction," then we were able to take a step back and seeing, "All right, what are some things that are similar and be able to abstract out?" And I think working from that perspective, it makes it easier to see, "All right, this is the actual experience, and we can basically abstract out the components and see different patterns, and see them in context of the page."

And I think that's one issue I've seen a lot, especially design system teams, where you go into isolation, you are really focus in on the button or the badge, but then when you put it in the context of a page, it doesn't work because it's not cohesive enough. Some people might not working like this, but I think for me it's the best way because it forces you making sure that you're building something that people are going to use and it's going to work in context of the overall experience of the product itself.

Chris Strahl:

Yeah, it's going back to some core atomic design concepts there, right? You need those atoms and molecules, but then ultimately people don't consume individual bits or individual components. People consume pages. I think that there is this myopia that just comes into play when you're building in a system for so long where you do think about those components in isolation without that context so frequently that it is really important to take that step back and to say, "Hey, what does this actually mean in terms of advancing the user experience," or, "What user value is being derived from this thing that I'm building?"

When you are relating it back to the business goals, so now you're talking to that CFO and you're talking about the button that you've built and then how that button relates to the context of the broader thing.

And maybe you're not even having that conversation, because you're probably actually talking about the end experience. What is it that you do say that justifies that design system? You can't say, "We spent a hundred hours on this button," but what can you say to that person to basically say, "This is aligned with our business goals?"

Adekunle Oduye:

I think when you're speaking to business people, you always have to tailor to the language they understand. So if you're talking to a CFO, you're going to talk about, all right, the design system is going to save designers and engineers X amount of time. And I think it's hard to quantify it, because I think in some cases you might have to do a research and say how long does it take for a designer to build a button versus using the design system component? But that's how I like to approach it where it's going to save time and money, because time and money is the most important value things, especially around the business where you're always trying to push new features and whatnot.

And then if I'm talking to a marketing person or whatever like that, we could say, "Hey, with the design system, if you want to do a rebrand or refresh or whatnot, if you change it from the design system standpoint, anything that user design system is going to inherit those changes, making it easier for us to move quickly and be able to do the redesign in a timely fashion and whatnot." So I think you always want to tailor it to who you're talking to, because again, different people have different goals and initiatives, but I always think of you want to tie it back to it's either going to save you time, money, resources, or it's going to improve the experience of your end users and whatnot in order to really sell the importance of design system overall.

Chris Strahl:

So you've talked a lot about the language you use, the business case. How have you continued to bring that forward as your career's advanced? Because you had this very heavy design lean, and then you moved into this code lean, and then you got this product side of it too, and those are the three major disciplines. I guess maybe you've probably even done some work with content at some point. How has that evolved, this thinking about how to speak in business language that people understand, this idea of how to get a design system off the ground and adopted? How has that changed your role as you've moved through your career?

Adekunle Oduye:

Yeah, a lot of it stemmed from just not having enough resources. Early in my career, especially when I was working on style guides, I had to wait for an engineer in order for them to start implementing it. So I was like, "Well, I'm just going to start doing it myself." And then NASDAQ was probably the first time I was able to combine both of them together. And then right after that, I took a design role and it was only design, and I realized, yeah, that's not me because I like to be in the trenches. I like to prototype and code and whatnot. And this role started coming up where it's, oh, design technologist. And I was like, "Oh, that seems perfect for me, because I work in the design department but I'm more technical and I'm working with engineers day to day, whatnot."And the great thing about that was that sometimes you have to be a translator between two different disciplines where it's design is speaking one language and then engineers speaking another language, and you have to be able to bridge that gap, so to speak.

So that's when I started to think I really like this hybrid role of being able to design a code, and also depending on whatever situation that I'm faced, one minute I might be designing a dashboard or another minute I might be prototyping, another minute I might be focusing on building design systems.

So the role I had after that, I was a design technologist where I was focusing on design systems, and then eventually I ended up at MailChimp where, if people don't know, MailChimp probably had the oldest style guide.

Chris Strahl:

Very early investor into systematic approaches to design.

Adekunle Oduye:

Yeah, and you could tell it just by using a product. But also once a company is design focused and also they understand the importance of design systems, it made it super easy to get things done. And we were able to support a lot of the brand refresh and doing a way where the system was the foundation aspect of it. And I was there for around three years, and it was great because I was able to work on components, but I did a lot of prototyping. And the one thing that was super beneficial for me was being able to have this design system as a service approach where I go work with teams and whatnot, like being a consultant, and help them achieve their goals or whatever like that. And the one thing I did that was super helpful was that I was able to help them, but also it was a great time to teach people about the design system and really understand what works and what doesn't work for the design system, and I was able to take my findings and communicate it back to the team.

So being in this hybrid role, I enjoy it because every day is different, and also you have different problems, but also you are able to work with a larger set of people. And it might be a case where you you're working by yourself, but that's okay because you have the necessary skills and experience to be able to take any idea from concept to completion. So that's something that I've really enjoyed, especially in the past couple of years and places I worked at.

Chris Strahl:

Awesome. Well, Adekunie, thank you so much for sharing your personal journey. I really appreciate you taking the time to chat with us. Learned a lot about some of the early challenges around design and engineering, and it was great to hear your perspective, past, present, and future for how design systems are related to businesses, and also how they've changed you. So, much appreciate it. Thanks for coming on the program.

Adekunle Oduye:

Cool. Cool. Thanks for having me.

Chris Strahl:

Take care.

That's all for today. This has been another episode of the Design Systems Podcast. Thanks for listening. If you have any questions or a topic you'd like to know more about, find us on Twitter @TheDSPod. We'd love to hear from you with show ideas, recommendations, questions, or comments. As always, this pod is brought to you by Knapsack. You can check us out at knapsack.cloud. Have a great day.