EPISODE 937

[INTRODUCTION]

[0:00:00.3] JM: Peter Deng has worked on most of Facebook's major products; Newsfeed, Instagram, Oculus and Messenger. These different products have different requirements, but they're all part of the same ethos of connecting people through social networking. Facebook is a consumer product company that is powered by a strong engineering workforce.

The relationship between product managers and engineering are two parts of a three-legged relationship; product, engineering and design. Every major product within Facebook is built with the teamwork of product engineering and design.

After almost 10 years at Facebook, Peter joined Uber as the Head of Rider. At Uber, Peter works on a very different platform, a real-world two-sided marketplace. Every change to the Uber platform has an impact on the economic relationship between riders and drivers. This creates a set of product development constraints that contrast with the social network of Facebook. Peter joins the show to describe how he thinks about product management and how the core competencies of a business inform product strategy.

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[INTERVIEW]

[0:03:29.3] JM: Peter Deng, welcome to Software Engineering Daily.

[0:03:31.0] PD: Good to be here. Thanks for having me.

[0:03:33.1] JM: You were at Facebook from 2007 until 2017. You worked on most of the company's main products. You worked on Instagram, Oculus, Newsfeed, Messenger, everything. What is the long-term vision for Facebook?

[0:03:50.7] PD: My information might be a little bit dated now being out of the company for two years, but I have a huge amount of respect for the leaders what they're doing at Facebook. It really is about making the world more open and connected, at least when I was there, that was the vision. Looking at things now, there's a lot of focus on community, which I think is super cool, right? Even for me, some of the most meaningful interactions I have now are on groups, right? Groups of people with common interests.

My wife's a part of a lot of mom's groups, which is really awesome. I just think that Facebook has really cracked this nut about how do we take real-world interactions and then just bring them to the digital world in a way that really scales. I think that's pretty cool.

[0:04:31.2] JM: How does the company's long-term vision affect the day-to-day work of a product manager?

[0:04:37.0] PD: Well, when I was there we on product work very closely with design and engineering to just take this vision, this bold vision that Mark had and find ways to just inch our way towards it every single day, right? What's really cool is for all the engineers in the room and for me, I've always just loved building things, whether it was just Lego stuff when I was little, or making little model trains. It was always really cool to create and to have this direction that the company was going towards of taking real-world interactions and how do you digitize it and make them scale.

It was cool to see every single day, we'd come to work and be like, “Well, what is the feature that we'd be able to build today? What can we design today that takes this thing that we do in real life, whether it's just acknowledging each other's comments by nodding, how do we make it a little bit more lightweight?” Teams worked on adding a like button, for example. Or on Messenger, we would add different ways of sending messages, like adding the like button as a quick response, right?

What we did as PMs working with the engineering lead and the designers are just taking a look at what tools do we have at our disposal and how do we build an interface and build a feature that gets us closer to that vision.

[0:05:43.1] JM: There's that famous quote about Apple, where people say the best product that the company ever built was the company itself. Do you think that applies to Facebook?

[0:05:53.4] PD: I'm not sure if I'm in a position to answer that question. I think that the culture at Facebook is something I look back on with great fondness; just the amount of openness and the open dialogue inside the company. It's really special to be there. Recently, I think last week,

Mark released the internal Q&As. He released that in live stream that and watching it just made me really see just like, “Wow, that's the company I remember.” It's very transparent. Mark tells how he feels and it's just really cool to see that culture still intact today.

[0:06:23.6] JM: Do you feel the engineers at Facebook are there to serve the product managers, or is it more the product managers are there to serve the engineers? Or is it –

[0:06:36.1] PD: I think it's a really deep partnership. Again at Facebook, we always thought of product design and engineering as the three legs of the stool, right? We worked very closely together. There was always – for every project when I was there, there was always a design lead, an engineering lead and a product manager. We didn't really go very far without each other, right? We kept in sync. We shared ideas together. We planned roadmaps together.

I feel each of those three disciplines had a really equal seat at the table. That's what really made it super magical. That's how I just like to work with engineering teams and design teams and that's the way that I've learned how to build product. Think that partnership is tremendously important in building anything.

[0:07:17.9] JM: Among those three roles; design, product and engineering, are one of those roles devoted to being the person that gathers data from the users, or gathers data from the customers and creates the dashboards and the actual metrics that are coming in? Or is that do you need to have a data scientist on the team as well?

[0:07:39.8] PD: Yeah, we had analytics. The analytics help with those dashboards. I think that – I mean, the way that it worked was if you had a particular question about how something worked, you could either do the digging yourself, or work with a data analyst to pull that data. What I was trying to say about the way we worked was the ideas about what to investigate, or the ideas of what to do or what to build, they came from any of those three functions, or any function at all within Facebook. I mean, that level of collaboration was what made it really magical.

[0:08:09.7]JM: How did Facebook's internal tools change your job as a product manager there?

[0:08:15.2] PD: Well, it's interesting is that one thing that was super awesome about Facebook and this is just me reminiscing, we ran our company on what the public knows as workplace. It was really efficient to have groups be the center of product development, or just building things in general. What's awesome about groups is that they are opt-in conversations, right? You get a notification for the first post – for a post in a group, but you don't get the subsequent replies, unless you subscribe to it, or a comment on it, right?

What's really interesting about this model is that it gives you a bunch of ambient awareness of what's happening within the company. You can see post-service surface in the newsfeed, etc. You would only truly engage in something that is – something that is relevant to your work, right? That I would say, that hack on a communicate, or traditional communications tool, it's not the same as a mailing list on e-mail, right? Where replies all, reply all are the same level of interrupt as a new message. This is more about letting you filter into the conversation streams that you're really interested. I think that was really special about how we built product at Facebook.

[0:09:26.0] JM: I don't know much about workplace, but as far as I understand there are both notifications and messages. In that way, it's fairly different from Slack. Because if you think about Slack, there's only one type of thing you can receive. I think that might be why some people feel they're totally drowning in Slack messages.

[0:09:48.3] PD: Yeah. Well, to be honest, I'm not a Slack user, so I can't really comment on that. The way that we used it at Facebook was when you needed to get someone's attention about a certain topic one-on-one and that was the medium you wanted to use, you use messages, right? When it became to be about posting some new designs and getting feedback on them, or sharing some results of a test, they would go in groups, because people can join in and dive deeper, ask questions on a specific topic, right? That was how we used those tools at Facebook.

[0:10:20.5] JM: Uber uses the – it's like a matter most fork, right? The uChat thing?

[0:10:26.2] PD: Yeah, there's a uChat we use internally and we also use a lot of e-mail and Google Hangouts is another medium we use.

[0:10:33.4] JM: What do you think of this idea that e-mail should be killed? E-mail is a fundamentally flawed experience for the workplace?

[0:10:43.2] PD: Well, it's funny because I thought a lot about this at Facebook, because we thought a lot about communication, different media that's out there. Every one of these tools has a set of dimensions that they excel at. They're positioned in a certain way that lends itself to a certain use case. I guess, let's just talk about e-mail. E-mail is permanent, right? It's also easily forkable and forwardable, right? Just that slight difference in terms of the forkability makes groups, Facebook groups a little bit different, right?

You always know that the audience for the group for any post that you have in the group are all the members of the group today and anyone who may be associated with that group in the future, right? What e-mail lists are really difficult, make it really difficult is if you're a new person trying to ramp up on a team, you can't really go back and scan all the past messages as easily as you could scan a group, right? Another thing about a group is because of the way the dynamics work of things that are sometimes more recently commented on or liked to start the bubble up to the top, it helps curate the information flow a little bit.

Again, e-mail is really this old-school primitive tool that it's very widespread, but it has a lot of gaps that make it a little bit harder to consume. I'm not sure if it should be killed, but I do think that there are a lot of shortcomings with e-mail that other technologies, like Slack and Facebook workplace are trying to serve.

[0:12:14.4] JM: How have you avoided getting buried in notifications and messages when you've worked at these companies, where there's just so much information to triage?

[0:12:25.2] PD: Yeah. I think it's a personal struggle that I think everyone deals with, right? I think, what the way I dealt with it was I just turned off notifications, to be honest. For me, I want to be very intentional about my work. There's time that I sit down after dinner, after the kids go down and I'll just go through my e-mail and triage it. It's not the right – I know Gmail always asked me like, “Oh, do you want to get notifications?” I'm like, “No.” There's no world in which I

want to get notified for this stuff. It's really important to curate how you receive the information that is coming at you to just stay sane, honestly.

[0:13:01.1] JM: You only have notifications for messages, SMS?

[0:13:04.3] PD: Pretty much. Yeah.

[0:13:05.4] JM: Right. What about for the you uChat, or the Slack?

[0:13:10.7] PD: Yeah, when things are directed at me, I do want to make sure that I get them. I want to make sure there's a channel that people can reach me. For me, that's actually g-chat. That's the way at work that people can reach me at, but interrupt me. That is the same level of interrupt for me as an SMS, as an example. Things like e-mail, they can wait.

I have a ton of filters on my e-mail that helps me manage when I'm in a mood to context switch into some certain topic and be able to keep my mind focused without having to pay that switching cost for message to message to message. That really helps me out a bunch.

[0:13:47.6] JM: One of the reasons I'm asking about the messaging and communication stuff is I don't have a whole lot of understanding for what the tool set and the day-to-day life of a product person looks like.

[0:14:01.3] PD: Interesting.

[0:14:02.1] JM: My only experience is I worked as an engineer at Amazon. That was the only place I've worked where there was – I had close interaction with a product person. That product person was in spreadsheets all the time. That was the tool they used with spreadsheets and then instant messenger and that's based in e-mail. That's the only interaction I saw with them. What are the other tools that you use?

[0:14:24.5] PD: I think it depends on the team you're working on and the needs of that team and also the level you're operating at, in terms of are you down into the task management side

of things, or are you working on broader strategy as a PM? As you go through the development cycle, you will just approach different phases with different tools, right?

I would say straight up, documents, like Google Docs is where you would start, if you're drafting up a strategy, right? Or putting out thoughts on how you might focus in 2020 and inviting people to come comment on it, right? That is a way to present. Again in that medium, you are able to present a – it's long form, you can structure it in however you – whatever a way it makes sense. You can frame up the problem and the comments make it really easy for people to ask questions along the way and for you to fork the conversation and manage a bunch of things independently.

All the way down to as you get down to the execution mode, I remember using our version of – we had a internal tool called Tasks, that was all about how do you task up all the things that need to be done for a certain milestone, right? Depending on the stage of the product development cycle you're in, I think PMs will just use different tools, right? Strategy starts with Docs and all the way down to task management tools.

[0:15:44.6] JM: In your last 12, 13 years, has there been any tool that has really changed product management that much?

[0:15:53.7] PD: I mean, there are a few of them. I think, we use Coda a lot internally now.

[0:15:57.4] JM: What's Coda?

[0:15:58.6] PD: I can't give you the accurate picture. I think you have to look it up and tell your listeners a bit. The way it works is it's essentially – the way I see it is it allows a person managing a ton of information work to list out projects, tasks and just define arbitrary fields. It's almost like a – like a spreadsheet, right? With that, you can put interfaces on top of it, like a form, if you want to intake requirements, or if you want to take a look at how the Gantt chart looks, it can turn a bunch of the tasks into a timeline. It helps mark – you can mark things as red, yellow or green in terms of status.

It's a way to track a bunch of I guess knowledge work that seems to work really well for our internal users at Uber, right? We use that a lot. Figma has been something that's been really awesome to see evolve. In the past, man, we were sharing PowerPoint files, or just PNGs right and left on e-mail, which was pretty horrible. Now we can just go walk through a presentation, zoom in and look at designs and it enables anyone – it democratizes that idea generation. It can take components and you can remix them, which is really interesting.

Personally, I'm involved in Asana a little bit. I'm friends with the folks over there. Honestly, I use Asana at home to manage my own personal tasks and the tasks within our household. I think there's a ton of tools that have popped up, where it's trying to organize a bunch of the information a lot better.

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[0:17:33.7] JM: Looking for a job is painful. If you are in software and you have the skill set needed to get a job in technology, it can sometimes seem very strange that it takes so long to find a job that's a good fit for you.

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[INTERVIEW CONTINUED]

[0:19:22.6] JM: It seems if I were to look five years into the future, assuming Facebook for work comes to market completely, it seems like that's the only fully integrated, opinionated workplace experience. If you think about the divergences of workplace stacks. The Facebook for work one, that's going to be the opinionated, unified Mac OS of work systems. The alternative is you're piecing together Asana and Figma and –

[0:19:58.9] PD: Slack.

[0:19:59.7] JM: Slack, whatever. You think that's an accurate depiction?

[0:20:02.7] PD: I really like the word you used, opinionated. It's really true. I think that a lot of tools if you boil it down, they're just like databases, right? With any database, it requires a lot of work to distill any meaningful insights from it. Again, I'm biased, because I use workplace, or the equivalent of workplace at Facebook before. It just had this aura about the product that felt it was mirroring real life, right?

I'll give you an example. I think that if you're new to a team and you want to catch up on all the data, or all the relevant information recently or in the past, getting into a new group in a workplace, you can just scroll back and just take it all in. You could just read. You can see, wow. That was a test that they did. Wow, click through the comments. What are people saying? What were the discussions like? The way that the product takes the information that's being shared and just naturally surfaces, or suppresses things that are more or less important is just really cool.

The other thing about workplace that's awesome is this idea of ambient awareness, right? You can be in a bunch of different groups, you can either get notified for them or not, but being able to just sit in your feet and be like, "Oh, yeah. This is what so-and-so just joined the team. There's an announcement for the company." This idea of being able to get information curated

through this and filtered so that's relevant to you, I think it's super powerful." You're right, it's opinionated, right? It's not just a database, but it actually start to curate and present information that may be most relevant to your work. I think that that's an accurate statement. I would agree with that.

[0:21:33.4] JM: Look, I run a two-person organization. The number of times where we've had to do a Slack integration with github, or Dropbox, or this, or that, or QuickBooks integration, or this integration, or that integration, we are in this integration apocalypse. For people who are setting up small businesses or let alone, larger business – I mean, look at Okta, right? Okta is the point of integration. It's like the entire company is built around integration. The idea that there is at least a unified alternative is – it's an appealing future.

If you think about what makes the Facebook work opinion, what goes into that? I mean, that's part of the goal of doing this series, is the latent assumption in Silicon Valley that Facebook is a carbon copy of the Microsoft Organization, or the Google organization, or this organization, or that organization, it's not true, right? There's something unique about how the company works. What is that? What makes the company's product organization and people management system unique?

[0:22:44.1] PD: I think the culture of Facebook is really special. I think that like I said before, there's a lot of just inherent transparency and just truth-telling and being open about what you're working on. I'll interview candidates today that come from companies, where I just talked to someone on Friday who said, "Wow, I want to be at a company like Uber, that just feels you can share data across the company more freely." I'm just shocked that data in some companies isn't shared freely, right?

I think that when you have that as a cornerstone, this idea that you can be transparent and that you will be a better person and the company is a better person – a company is a better organization when people are freely sharing their ideas, the data of what's – the truth of what's happening, etc., that I think is a really powerful unlock for any organization.

I don't know what the adoption of workplace is like outside of Facebook. I never worked on that team, right? I'm just looking at it from someone who just deeply was integrated into that, a

company that had workplace as its primary tool. I thought it was extremely efficient in getting us to come up with better ideas, because we all had better understanding of what was happening in the company and on the teams. It's the way that the information is just naturally curated through the feed and through the groups, that just makes it I think just that much more powerful.

[0:24:07.1] JM: You worked on – you joined Instagram, I think at 2013. That was about a year after the company was acquired. Later on, you joined the Oculus team. When you joined those companies that were new properties within Facebook, did you look at that as an opportunity to experiment with a product that was off-brand from Facebook, so you could potentially do things that are off-brand? Or did you look at it as an opportunity, or a necessity to quickly integrate the product with the product ethos of Facebook?

[0:24:39.8] PD: It was definitely not the latter. I think when we looked at those, when I joined Instagram, it was definitely about taking a look at what Mike and Kevin had built and how do we take the best of what Facebook has to offer to help that scale, right? I'll give you an example, there was an effort that on the engineering side of how do we integrate into the Facebook's back-end, just to make things a little bit more fluid? That was a great example of leveraging Facebook's capabilities to build a better product for the customer.

It was not at all that ethos of what you're saying in terms of assimilation. It was just how do we build the best product for the customers and take everything that Facebook has to offer to help with that.

[0:25:17.5] JM: What did Facebook learn from Instagram?

[0:25:20.4] PD: I'm not so sure I'm the best person to answer that. I can tell you what I think Instagram brought to its users. In terms of what did Facebook learn from Instagram, I think that Facebook and Instagram learned from each other, if that makes sense. It was very clear, the simplicity of Instagram was really powerful, right? It's not something that you can just measure from an A/B test, but it's the belief in simplicity was going to be really powerful to the product, I think really panned out.

In a sense, I think there was things about the social graph that was just different about the two companies. With Instagram, the idea of the default being a following – a one-way relationship of what are you interested in, versus a reciprocated friendship was just different. I don't think one was better or worse. I mean, as you look at both product's success in the marketplace, I think there's just room for both models, right?

My Instagram feed is very different from my Facebook feed. It's just very different. It's very interest-based. That makes that powerful. I use both products. I don't think there's an either/or. I think both products found natural fits in people's lives.

[0:26:37.1] JM: Facebook really benefited from a broad lateral expansion when the company was getting off the ground. It built all these different products. It built messenger and newsfeed and groups and all these kinds of things. One thing it did shy away from was the company resume style space that LinkedIn was really dominating it. Or am I misremembering it, or –
[0:27:08.0] PD: No. I think LinkedIn has a place in the product ecosystem. Just the same. Yeah.

[0:27:13.5] JM: What was it about the fact that LinkedIn was having a lot of success that – because there are other domains where Facebook just says, "We must do this" like photo sharing. Facebook decided, we must solve this problem. We must figure out how to get into the photo sharing market. They paid what at the time, looked like a high price for Instagram in order to get into that market. The work side of things, it seemed they were willing to say, "Okay, we will seed this territory to LinkedIn," right? Do you think that's accurate?

[0:27:46.6] PD: I just don't think we were really focused on that side. Taking a look at making the world more open and connected, which again was the mission for the longest time that I was there, for the entire time I was there. There was just a lot of work to do, right? There are a lot of different products you could build and you got to choose where you focus. I feel Facebook focused on the areas that had the best adjacencies of how we can serve our customers in the best possible way. I think that was just the annoying ethos.

I can't remember any specific discussions one way or the other. It was very much like, yeah, this seems like, yeah, we got to do messenger. It seems a really important tool for people to be more connected, right? Same with groups, same with profiles and the changes we did there and

newsfeed. I think it was all along this master strategy that Mark had. I think that was where we focused most of our time.

[0:28:38.6] JM: The Instagram product was really capturing something that was extremely popular at the time it was acquired. With the Oculus acquisition, it was more of a bet that this is a consumer trend that is going to take off as the technology improves, as people adopt it. How did your product management experience in those two products differ from one another?

[0:29:03.9] PD: For me, I'm all about learning new things. Whenever I take on a new role, it's always probably the biggest part of it is what am I going to learn that's new in this gig? Learned a lot from newsfeed, from messenger, from Instagram. Personally, I think that for me going over it was just how can I learn about hardware development and that whole area?

Now when you take a look at what the differences and how product managers have to adapt to their field, you have to take any new situation you're put in as a product manager and just start with the most intense beginner's mindset, if that makes sense, that you can, and just soak it all in and get as much learning as you can. The two products are very different, right? I think what one quality I look for in product managers that I work with are people who are just naturally curious to learn about things, and people who come in and spend more time listening to data and what's going on in insights, than I'm pontificating on what the next direction, or the vision should be, right?

The folks that I found that don't shoot from the hip, that take a whole month to sit down and just ask questions, what's working, what's not working? What do you see the vision is? Etc. Just taking an understanding of what the industry looks like, I think those make the best and the most successful product managers in my experience.

You're right, they are different in terms of what the products were, but any product manager going into a new field or company, any good one will take time to absorb all the information they can before forming an opinion. Does that answer your question?

[0:30:48.5] JM: Partially.

[0:30:50.7] PD: I missed it.

[0:30:51.6] JM: Were you a VR user before you started using Oculus?

[0:30:53.5] PD: I was not a VR user. No.

[0:30:55.2] JM: Did you start dogfooding it a lot?

[0:30:57.1] PD: Absolutely.

[0:30:58.1] JM: Oh, man.

[0:30:58.6] PD: Yeah. No, absolutely. Learning the differences between mobile VR and desktop VR was a huge thing. I spent many hours at home in the dark after the kids went down, playing games. As someone who's a little bit motion sensitive, I really fully felt the pain of a folks who – when you dogfood your products, you get a feeling for that. There's a lot of learning to be done. A whole new industry understanding how content is created, that was new to me as well. Yeah, absolutely. For any product manager to get into a situation, you got to fully understand your customer and fully understand your product. Yeah, there's a lot of dogfooding involved.

[0:31:36.9] JM: What is like filing a ticket for a VR product look – I got sick here.

[0:31:44.5] PD: Luckily, there's a lot of smart people who are there before me to help guide me through what I might be experiencing and various concepts, right? Just understanding the latency between the display, the various refresh rates of the screens and understanding if there's going to be motion – there's blur when you move your head.

I had a lot of help in terms of naming those concepts, so I didn't have to come up with them by myself, right? There's that piece in terms of understanding the product at that level. There's also just common bugs. It's like, “Oh, yeah. Just looked off.” Or, “This didn't match my intuition or whatever it would be.” There’s just different classes of issues that we uncovered.

[0:32:25.9] JM: How did it differ from a QA person? I can imagine a QA person just sitting there in a chair, sitting there in the dark and just they keep playing the game and playing the different experience and be like, “Yeah, there's lag here.” I mean, was your role more about setting big-picture direction for the product? What do you do?

[0:32:44.6] PD: It's a great question. Yeah, thank you for asking so directly. A lot of what I did there was to work with the team to figure out what is our strategic approach to VR, right? There was a ton of smart people. I felt I was more of a remixer and a more of a helping us call out, do we do X first, or Y first, etc.?

At the time, we had two products. We had a mobile product and a desktop product. There was a lot of discussions on how do they get them to converge, right? Do we get them to converge? What is the technical capabilities of each of the platforms? What content is necessary for us to be an indispensable part of people's lives, right? Is it just gaming content right now, or is there some metaverse social connection?

That's the work that a lot of the product team did when I was there. It wasn't just does the product work or not, but how do we sequence our strategy and how do we approach this giant promise of VR that was ahead of us?

[0:33:43.6] JM: When will the market inflect from game players to a broader audience?

[0:33:50.2] PD: I think in order for productivity to really take off in VR, the resolutions got to get a lot better. In order for the resolution to get a lot better, there needs to be some more advances in eye tracking, or just full view rendering, or just ways that the information can be rendered in a way that you can see it very crisply and in a very small type field of view. I think when that happens, you're going to see a lot of this is just me being armchair VR enthusiast, a lot of more productivity where the world can even – you have your own desktop and work on projects, or coding, or Figma, or whatever it might be.

I think, productivity is going to be a little bit of time. Again, I leave it to the experts at Oculus to give you better predictions on when that's going to happen. Right now, there is a lot of really fun games and entertainment. A lot of what's going to I think dictate success for the industry is what

is the holistic product feel going to be like? What is it going to feel when you have no wires, like the current Oculus headsets that are out there, right? What does battery life look like? How does overheating work? How does the physical comfort of you being experienced work? There's going to be some hurdles to cross before I think VR really takes off.

[0:34:58.7] JM: Did you still use VR after you stopped?

[0:35:01.4] PD: Yeah. I got one of those Oculus Go's. I've yet to still splurge on the newest version, but it has been really cool to watch my former teammates and all the work that they've been doing from afar.

[0:35:14.1] JM: The first productivity app, do you think it's going to be basically this experience where you're just – you have infinite monitors and it's a better monitor experience?

[0:35:23.8] PD: I think it's going to be about data visualization. I think that's where it's going to be a big unlock, but that's again, just me being armchair VR enthusiast. As someone who on a daily basis looks through a ton of different data and tries to make sense of it, there's just a level – extra level of unlock that I think that VR could provide to that data visualization, right?

Being able to manipulate data from a three-dimensional way and just being able to say like, look at charts from different perspectives and model things differently I think is going to be one of the biggest productivity unlocks. If you take a look at Edward Tufte's work and stuff in terms of things he invented, like Sparklines and all these different data visualization things, I'm not smart enough to tell you exactly what's the new Sparkline, or what the new visualization is going to be, but I can't imagine that having something you can manipulate in front of you won't change the way the data is going to be displayed.

[0:36:19.7] JM: At this point, you've been at Uber for more than two and a half years. How does the product management experience differ between Uber and Facebook?

[0:36:28.3] PD: I think a lot of it's the same. We look after the consumer experience. We look at the business goals and how we build the best product for the customer and fits the business goals. I think the biggest difference between the two companies and one of the reasons I was

really excited to take on this role is the real-world, real-time marketplace that we operate in, where Amazon – you worked at Amazon.

Amazon operates in a real-world marketplace, but it's not quite real-time, right? Just that extra minute of a driver and writer not being able to find each other could lead to a pretty bad experience and you could be stuck in the rain for another five minutes if the driver drove off or whatnot, right? It's not a good experience for the driver to be able to not find their next ride either.

I think that was one thing that's been really challenging is to see things from a perspective of this product has to work perfectly and it has to work in real-time and it has to connect these two parts of the marketplace together. Another thing that I think is really interesting about the role at Uber is how much we have to pay very close attention to the unit economics of every single thing we build, right?

I'm responsible for the consumer side, so the rider app is what we call it and all the things that ladder up to that. Any small change we want to introduce to the product from a consumer perspective has to have a change on the driver partner perspective, or the marketplace code, right? It's very integrated. Thinking about how it all fits together, but also the unit economics of every single ride makes the role incredibly interesting and challenging.

[0:38:08.2] JM: How often is a decision you're making on the rider side of things directly trading off with the driver? Is it more of a win-win thing, or just a free lunch? Or is it oftentimes a trade-off?

[0:38:27.3] PD: I think that what's magical about the way we work is we have a head of marketplace and a head of driver product and my role. The three roles and there are many of other areas within Uber, but the three of us keep each other honest, right? I think it's really important that my counterpart on the driver product advocates fiercely for the driver partners and that I advocate fiercely for the end-customer experience and what will make it really magical. Remember that first Uber ride you took, that was magical.

For the marketplace lead to help us figure out like, okay, well how do we price this and how do we make sure that this is going to make the marketplace balanced, right? We do think a lot about each other's areas, but I think the way that we make it all work is that we are able to stretch in different and opposing direction, slightly opposing directions to stretch the gamut of the solution space, if that makes sense.

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[INTERVIEW CONTINUED]

[0:41:22.8] JM: What you said about the real-time nature of the company, I think that's something I had underestimated. Now I'm thinking back to some of the interviews with Uber

engineers that I've done. A lot of the conversations I've had have been these really gritty, low-level networking problems and low-level infrastructure problems and all about lowering latency and getting the infrastructure perfect. It makes me wonder if critics of the company, people who maybe don't see the moat in the company are underestimating the fact that that real-time, the difference you pointed out between Uber and Amazon, that real-time, that interactivity is very hard to build.

[0:42:09.9] PD: I think it's pretty hard to build. I haven't tried to build a competitor to Uber, so I can't tell you how hard it is to overcome. I think it's pretty hard to build. This is what I alluded to. When I said the unit, when we think a lot about the unit economics, it's not like we're sitting there obliviously to users' needs. We're entrenched in the users' needs. We're trying to build that magical product.

In order for the entire magic, of the experience that you experience, and maybe just feel so commonplace now that everyone takes for granted, but to make that work, there's a lot of very hard execution that needs to happen along the way, right? A lot of systems that have to all lined up. You're right, latency is a huge thing, right? If we have a slow call to the fares stack and it takes a little bit of time to show you how much your ride is going to cost, that's not a magical experience. That's pretty bad, right? You could be sitting there waiting. Maybe you're on low-connectivity Internet and that doesn't come through. A lot of these little things really do matter, because when people expect the reliability of a service like Uber, you have to deliver every single day.

[0:43:13.5] JM: With the focus on unit economics and being so product focused, do you spend a lot of time talking to Uber economists?

[0:43:24.1] PD: We have a team of economists internally. We talk to them quite often. Again, the product side of the house, we obsess over the customer experience. It's just we have the added, I think it's the added challenge in a good way of thinking about how it's going to affect the business in addition to how it's going to affect the rider's experience. Yeah, we do have some economists internally.

[0:43:46.5] JM: Give me some general tips for designing a two-sided marketplace.

[0:43:51.9] PD: I think it's really important that if you're designing a two-sided marketplace, you deeply understand the needs of both sides of the marketplace. Understanding and empathizing with what the goals are of the driver partners that we have, right? Whether that be financial, or if they're driving that platform for the first time, or part-time, or full-time, that is as really empathizing and understanding what they're looking to get out of experience, as much as you guys are on the consumer side, is the critical first step.

At the end of the day as product managers, we solve problems. We design solutions to problems. You can't design a good solution to a problem that you don't fully understand. I think that would be my first critical piece of advice when you're designing a marketplace is to really understand what's in it for the driver partner? What is the consumer looking to get out of it and then making sure that they match up? You design the right solution for that.

[0:44:48.8] JM: When you think about the – when I think about the long-term vision of both Uber and Facebook, one thing that I really like, one thing that makes me optimistic is that both systems are building reputation platforms. What kinds of products do you think you could build on Uber and what kinds of products do you think you could build on Facebook's reputation systems?

[0:45:13.9] PD: That is a good question. I'm not going to speculate on what Facebook is going to build or not build. Certainly, I can't comment on the future plans of Uber. I think, the fact that you asked that question, you're highlighting some of the most exciting parts about being internal with Uber and working on those things, right?

We look at the opportunity internally and we just really feel there's a ton more space and a ton more runway to go. That's what's really cool about working in tech in general, right? Because we build capabilities that then enable us to build more capabilities on top of that. At the end of the day, we're just delivering some pretty awesome products for our consumers and for the world and then changing the world for the better, right? It's a really good question. I'm not going to speculate for one company or the other, but is exactly the reason why I think we all work in tech.

[0:46:00.5] JM: Why do you think it is that our culture, we're comfortable with the reputation systems for consumer loans, or for background checks? We haven't yet really gone beyond that for leveraging reputation systems, for establishing credibility and then using that as a lever into other things in a formalized marketplace style way. Do you think people are just nervous about it, or do we not have the tech to do it well yet?

[0:46:33.7] PD: I don't know. Maybe you're underselling how much progress we've made as a technology. Not we as an Uber, just the general tech industry, right? Could you imagine when you were growing up, let's say you turned 18, could you imagine your mom being like, “Yeah, you should take a ride with a stranger that you've never met. You're going to give our house address and our coordinates to that person.” I feel we've really come a long way in terms of just feeling we can trust each other just a little bit more, right?

I'll give you another example. I mean, just let's use just TripAdvisor, or Yelp as an example, right? When I go to a new city now, whether it's international or here in the United States, I don't feel that level of anxiety that I'm going to go and pick a restaurant that's going to be not what I expect, right? I think that is a pretty big difference if you think back to the 80s of having Yellow Pages and telephone books. There's a lot of guesswork in terms of what will you expect when you go into this business and you have these international brands, where the brand becomes a thing that you trust, like McDonald's, like you can expect a certain level of consistency.

Don't get me wrong, I love McDonald's myself. Being able to discover what's awesome about Washington DC hole-in-the-wall spot and being will do that through Yelp or Foursquare, or TripAdvisor is pretty cool. I think reputation’s got in a way that – gotten to a stage where end-consumers benefit, but also I think it changes how people behave as well, because I think people know that there's a reputation system out there. Then I think that changes behavior a little bit.

[0:48:09.6] JM: What did you learn at Facebook in the product management category that you apply at Uber?

[0:48:16.2] PD: I feel I've learned everything I know about. Probably different from Facebook, I feel I grew up there in a sense, professionally. I mean, there's too many lessons to I think your

podcast will have to be really long for us to go through all of the lessons. I'll pick a few. One I think is investing in people. I think that being in a position where you can pick people, the right people to work on your team and investing in the right people to do awesome things, that's one of the things that I think Facebook has really taught me.

Looking at the amount of collaboration that's within Facebook, I think that culture was created not by accident, but by having some strong values in terms of finding people who are just really selfless and are lifelong learners and really want to – are curious about the right solution and curious about innovating that level of growth mindset, I would say, is something that I feel I've learned through my time. It's really value, right? I think that's one thing.

I think the other thing is the importance of systems thinking. One thing that Facebook really taught me, especially in the earlier days is Facebook was an ecosystem, right? There were incentives for why people wanted to share something. They wanted to give that feedback, right? There was incentives for you to come to Facebook to consume things that other people shared. Seeing that ecosystem brought to life really puts it in context. Because I think as a product manager, it's really easy to design features that you think are cool, but features that really augment an ecosystem and solve the needs of players in that ecosystem are the ones that are super powerful.

The third thing I would say is how to be really clear about the problem you're trying to solve, as opposed to just designing technologies in search of a problem, right? At Facebook, we were always very clear about the user research showed us this, or the data showing us that this feature is confusing. It wasn't a place that people said, “Wouldn't it be cool if we built this feature?” It was rather a place of hey, we've identified this problem through our research in the data. Then let's get into a room with smart people and see how we fix it.

[0:50:24.8] JM: Speaking of the company as an ecosystem and also thinking about marketplaces, in the interviews that we've done so far, one of the things that I learned about was this really elegant system of boot camp plus headcount.

[0:50:39.7] PD: Boot camp is awesome.

[0:50:41.1] JM: Boot camp is awesome, but also just the idea that you have this gigantic funnel of people always coming in. Then as I understand, you have this headcount system where there's a centrally planned allocation to different teams. Here's how many people you can potentially hire. You are still going to have to advocate for your team and sell the team on the people who are coming in to boot camp. You have to make your team appealing to these boot camp people.

What I really like about that is I never worked at a tech job for longer than eight months after I left school. Part of the reason for that is because I always felt my relationship with the company was firstly adversarial.

[0:51:29.4] PD: Wow. Really?

[0:51:30.4] JM: Yeah. I felt all the companies I worked for, like the job postings were misleading, I was not really given work that was appealing to me. Maybe I'm spoiled, but I was just like, "Why would I stay here? It doesn't make any sense." Facebook, I feel from the interviews I've done, assuming I understand that headcount plus boot camp system correctly, really has tapped into the idea that you need to build a system that is appealing to your engineers, or else they're going to go elsewhere.

[0:52:01.2] PD: I'm such a huge fan of that system, but also just a Facebook culture in general. That was a really, really awesome design decision made on the organizational level. You're absolutely right. I think the insight there is that fit is a two-way street. I think a lot of people, a lot of companies out there may think of it as like, "Oh, where can I get resources, or talent to do the work that I want them to do," right?

Exactly what you said is is Facebook's insight of you're going to get the best out of your engineers when they are passionate about the work, right? It's such a good system, because it ensures that only the people that are really sold on your vision and mission are going to join your team, once they come through the doors and come through boot camp. What's awesome about that is it basically has this impact on the local teams, where your teams just get stronger and stronger and people buy into the vision more and more and you're able to just execute a much faster clip when everyone's bought in on what the work is that you're doing.

It also forces the teams to get better at making the work more interesting, right? Everyone wants to be able to come and have a huge impact. It's this nice self-balancing thing, where if there's a big hole on the ads team for example, and the next engineer that comes in will have a tremendous chance at – a huge impact, that's really appealing for the next person that comes in through boot camp. Naturally, that will probably get filled faster. It has this really good balancing side effect to it that I think is – it's really brilliant and incredibly powerful for the company.

[0:53:39.7] JM: Okay, we're almost out of time. What differentiates Mark Zuckerberg as a leader?

[0:53:45.1] PD: I think what's oftentimes misunderstood about Mark is he is so deeply committed to the betterment of humanity and I don't think it always comes across, right? I think that if you take a look at the work that he's done throughout the years of building Facebook, he's always had this vision in mind of the world being a better place when there's – it's more open and connected.

I think that what's the most differentiated thing is that he – if you take a look at the work that he's doing through the Chan Zuckerberg Initiative and all the philanthropical work, he deeply believes in that. I think that's oftentimes the thing that's most misunderstood. I'm not sure that my voice is going to change anyone's opinion. I can tell you that if you were asking me that in this one-on-one setting and with all your podcast listeners, that's the one thing that I wanted to land, because I think just seeing him as a leader internally and if you guys haven't already, just watch the Q&A that he just livestreamed and published last week, right? It's pretty incredible to see how much he really cares. I think that oftentimes gets lost in translation.

[0:54:52.8] JM: I still need to watch that. I mean, I saw the link [inaudible 0:54:56.3] article around it, but they break up the audio into ways that make it hard to consume, so I need to just find the live stream and watch it.

[0:55:04.0] PD: Well, it's on Facebook, so you can just go and click through it. I recommend you watch it. It's very cool to see. As someone who was in the company, that is what it's like to work

inside the company and see him lead. It will give everyone a good glimpse into the company culture and what he's like as a leader.

[0:55:19.9] JM: I agree with you, by the way. I mean, I'm a fan of his work. I'm a fan of Facebook. Products are awesome. I think people are losing sight of that. Pretty good products. I guess you had a hand in that.

[0:55:32.0] PD: Well, I was fortunate to be a part of it, I'll put it that way.

[0:55:35.5] JM: Okay. Peter Deng, thanks for coming on the show.

[0:55:36.7] PD: I appreciate it. Thanks so much.

[END OF INTERVIEW]

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