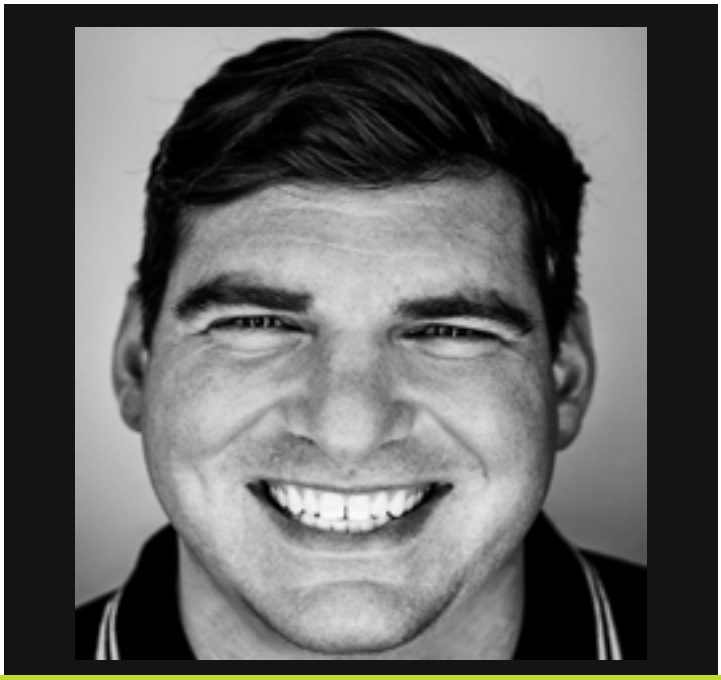
MAU [Talk]

EP. 015

A CONVERSATION WITH:



MOBILE DEV MEMO

ERIC SEUFERT

EDITOR

This transcript was developed with the help of otter.ai software, please excuse any errors.

MAU [Talk]

EP. 015

MOBILE DEV MEMO

MAU[Talk] 00:00

Hey guys, welcome to MAU Talk a podcast from MAU Vegas, the premier mobile acquisition and retention summit. In this episode, Adam chats with MAU Vegas alumni, Eric Seufert, of Mobile Dev Memo for a well rounded discussion regarding the future of advertising measurement. Let's hear what these two have to say. Over to you, Adam.

Adam Lovallo 00:19

Okay, Eric, welcome to the podcast. Thank you for doing this. This is technically your second appearance, but hopefully the first that I will record successfully, so I appreciate your patience.

Eric Seufert 00:31

Yeah, no, that's that's right. You should be you should be saying welcome back.

Adam Lovallo 00:35

Yeah, exactly. So I think quite likely that literally every single listener to a podcast as specialized as this one knows who you are, but just to be thorough, can you tell us a little bit about your background and especially your current work, and, you know, the writing you've been doing just like this, your State of the Union for you personally.

Eric Seufert 00:58

Sure. Um, so my background is in consumer mobile. I spent about 10 years in consumer mobile started my career at Skype, working in Estonia, and bounced around to a number of mobile gaming startups, I ended up as the head of marketing at wooga, which is a social gaming company based out of Berlin, they were acquired by play Tikka. And then I was the VP of user acquisition at Rovio, which makes the angry birds games in Helsinki. And then I, I started a company that created an analytics platform for mobile marketing, and I sold that to a mobile gaming company. And then about two years ago, just kind of struck out on my own. You know, that whole time that I was working for these various companies, I was writing a blog called Mobile Dev Memo that I launched when I when I published my book, Freemium Economics in 2014. And I, you know, just was blogging and enjoyed that. And I wanted to kind of, you know, do that full time ish, or, you know, things related to that full time. So I write the blog, I do, you know, a handful of kind of consulting engagements, I advise companies in I've been running an investments in again, for the last 10 ish months, that's made a number of investments across the mobile ecosystem, so just kind of a bunch of different things. But yeah, most people if they are aware of who I am, it's probably from Mobile Dev Memo.

Adam Lovallo 02:34

And I don't I don't think you've included in there you have a super popular and active Slack channel, right?

Eric Seufert 02:43

Yeah, that's the Mobile Dev Memo Slack. Yeah. So the community is pretty big there about 3000 people got much more, you know, vibrant during, during the att. epoch. But yeah, it's, it's it's grown into like a pretty sizable community. It's pretty, it's pretty cool.

Adam Lovallo 03:01

Yeah, that's awesome. Okay, great. And I'll add, Eric, you know, this well, but I talked to, you know, like equity research, public market, hedge fund people on occasion, and all of them, like, read everything you write, like religiously. So you've got a lot of a lot of fans out there, particularly on the topic of Facebook. Okay, so for our conversation today, we wanted to talk about how to use your words, the future of advertising, measurement, or just just measurement in general. And so, just just to start, I want to talk about multi touch measurement, multi touch attribution. Okay. In as I understand it, for a very, very, very long time, the entire advertising ecosystem was very much like a last click focused approach across the board. And there have been attempts in recent years to introduce this notion of, you know, multi touch measurement, as opposed to just last touch measurement. I'm curious, like, do you think, have you found that, quote, unquote, multi touch solutions have ever, you know, become mainstream or been practical, even in your own work? Like, like, did did multi touch measurement ever really deliver on the promise? In your opinion.

Eric Seufert 04:26

I would say no, but I would, I would not. I would kind of qualify that no, with I have seen models work that included an assumption that a a person was reached with with an ad or with you know, with ads for a product multiple times. And and that assumption was baked into the to the performance evaluation, right. So I think the problem with multi touches, multi touch, it's almost like the way that that is presented. Or the way that that's kind of packaged is almost like a brand marketing tool. And so performance marketers aren't really going to think about it that way. And brand marketers would never use would never would never kind of think so so it's almost like this weird hybrid, worst of both worlds kind of idea, right? Because you've got multiple multi touch, which kind of conceptually should be something that's like, you know, it just the way that you would you would describe multi touch, which is that we sort of, we sort of allocate our spend across a campaign to the multiple different touch points that a user had with our ads, and try to try to measure their performance sort of, on an individuated basis, but within the context of, you know, the ultimate conversion.

Adam Lovallo 05:50

Right.

Eric Seufert 05:50

So that's, that's a very direct response approach. But but it's, it's it's almost packaged in a way that at that brand, advertisers would use it. Right? You know, because it goes direct response, you typically wouldn't want to have too many you wouldn't, you wouldn't want to sort of set a campaign up to have too many touch points, because that would be like inefficient, wasteful, you'd probably end up realizing that a lot of that wasn't really incremental spend, right that that was that was spent that was kind of being wasted. And, and a brand advertiser would care about that. Because that's the purpose of brand advertising is to just drive engagement with brand and drive recognition of the brand. And you don't, you're not really so focused on a given conversion. So like the way that that's sort of packaged, is it kind of both the worst of worst of both worlds construction, right, so you've got this kind of brand advertising idea that you're trying to pitch to Dr. Advertisers, right. So brand advertisers do use, quote, unquote, multi touch, it's just more of like a media mix model, right? Like, yeah, we're running all these different campaigns. And, and then we map that to sort of like retail sales or whatever. And we update that on a quarterly basis. That's, that's, in essence, what multi touch is, it's just there's no touch, right? Because there's no ad, there's no, there's no ad that he's necessarily clicks on. But for Dr. Advertisers, I have seen this this concept be used to great effect, it's just, it's just not positioned as like this is multi touch, sort of like very specific allocation. It's more about, hey, when we run ads on these channels, that just supports the performance on the channel where we really want to drive the click, and the conversion, right, we have, we have our sort of, we have our most important channel, or we have our primary channel for driving conversions. And we have these other channels that just sort of support, name recognition, or they sort of increase the propensity of the user to click on our primary channel. And that's what we're trying to do, we're trying to sort of sequence these such that when the user finally does see our ad, the real ad, the real ad that we want them to convert on the ad that kind of most efficiently converts them, that they're sort of already primed to click, right. And they and they've been, they've been sort

of made aware of the product, and they're interested in peaks and want by the time we get them with this digital ad. That is is is sort of best position to sort of drive a click and then drive a conversion, that that they've been made aware of the they've been made aware of the product. And they're sort of like, very excited to click on the ad, right. And in that way, there's no multi touch because you're not clicking on multiple ads, and just not converting on some of them. But it's more just like an awareness, like this sort of background on being awareness campaign, that that the performance of which is really measured through the increase over the baseline of the Dr. campaign. Does that make sense?

Adam Lovallo 08:30

It does make sense, as I understand it, you've hit on media mix modeling, you've hit on incrementality, we'll talk about those two, speaking specifically about this multi touch notion. As I understand it, the MMP's in our mobile ecosystem, offer a form of multi touch measurement in that if they see the same user coming through their, you know, their links, they're they're tracking multiple times, they might cut up credit for the install to different sources, and might do this as a pre idfa, deprecation thing. Did you ever find that to be particularly, like practical or useful, I always sort of thought, Well, the fact that in the mobile ecosystem, we can't really get a good sense of views. And a lot of these channels means that like, I don't know about multi touch attribution solely in the context of people hitting the App Store, but maybe that's like, being overly negative, like do you ever see app advertisers using an MMP and actually finding the multi touch stuff to be, you know, have any practical implications?

Eric Seufert 09:39

No, because, you know, the problem with that. And the problem, you know, with the, with this sort of notion of attribution, being at all deterministic on mobile period, was that, you know, you didn't have one single source of truth, right, you didn't have the God's eye view, right, because you had the SA ends that were sort of like existed totally. Outside of that purview of the MMP. Right, and that was always a problem. So if the SA ends are just telling you what you owe them, right? And telling you which conversions they drove, and they were using, you know, view through to decide that, well then you're never MMP and MMP is not the the umpire, right, which is the way that their businesses were kind of position because it'd be like, you know, they were the each, each team had its own rep or I don't know, that extend that metaphor. Because they didn't they didn't have their there's not like one single, you know, arbiter right there, you know, that they got to determine who, who gets attributed to what, so that just didn't really work, then you'd be talking about. Well, okay, we've got this sort of, outside of, you know, outside of Facebook, you know, Google Snap, tiktok, Yeah, fine, we can tell you where there was overlap and determine, you know, who gets the actual credit. It's kind of like, you know, but aside from that, how is the plane this is thinking, right, like that the the meat of the meat of the substance of this issue, what is the overlap across Facebook, and the channels that they have MMPs could do that sort of collision avoidance for and so, you know, given that the only had really purview over the ad networks, and sort of DSP is, it didn't really matter.

Adam Lovallo 11:21

Yeah. Yeah, that makes sense. So okay. So if, if multi touch, attribution is kind of this, well intentioned, but maybe somewhat difficult to implement solution. Will you talk more about, well, just your your understanding of media mix modeling, and how that kind of maybe replaces or is a is a go forward solution, you know, for solving maybe some of the shortcomings of the super deterministic multitouch kind of approach? So slight, people probably aren't even aware, like, how do you define media mix modeling? How do people go about it? When do you think it's appropriate? It's like, kind of an intro to that great.

Eric Seufert 12:05

Sure. Well, I would, you know, maybe push back a little bit and say, you know, what we had on mobile was not super deterministic, and it hasn't been right, just because.

Adam Lovallo 12:13

Fair, fair, fair.

Eric Seufert 12:14

You know, that SA and sort of, like, collision factor, but yeah, I mean, media mix modeling is really, it's kind of an old technique, and it comes from CPG. Right. So it's, you know, it's, it's where, like, we have these campaigns running, and they're not measurable, you know, really, very well at all right, like, we have TV campaigns and radio campaigns, and, you know, you know, magazine advertising campaigns, and, and we're selling a product that that sits on store shelves, and, you know, we have all these advertising, you know, activities going on, and, and they're at different levels in different regions of the country, or even even in the world and we're using different agencies. But anyway, there's just a lot of like moving parts. And so rather than try to build a bottoms up model, that that attempts to measure each of those, each of those kind of gears that exists in this like sort of broader mosaic system, we're just going to say, look, I only really care about, you know, the top line metrics, I only care about like, sort of spend by region and revenue by region. And what I want to do is, I'll break that out, kind of granularly, maybe by channel or maybe by even by just spend time, and then I'll try to map that I'll use the variations of those inputs over time to try to map them to sort of, you know, performance overall, for whatever sort of geo-region we're looking at, you know, just just based on sales, right. So it's really just like, almost like an econometric model that uses as few inputs as possible and tries to map and uses variations over time and the inputs to try to get a sense of how they contribute to sales. And then once you get that sort of, you know, that kind of contribution factor that comes into the contribution coefficient by channel, you can decide where you should how to best allocate budget right. Now, you know, a lot of CPG companies, and it's funny, it's like, you know, kind of as my, my sort of work has expanded beyond just mobile, or just beyond, like, sort of Dr. Mobile and, you know, having having worked with companies that, you know, do CPG ever, you know, the CPG companies, they do mobile advertising, and they're, they're sort of like, review cadence is very, very slow. I mean, I think it would be like glacial by just most mobile marketing standards. I mean, you know, most people did mobile gaming or, you know, working for, like, you know, in growth that like a mobile FinTech or something. I mean, they're looking at the they're looking at their data every day. I mean, it's just they live in, in die by those numbers. You know, CPG company might review quarterly, they might review monthly, right? They might, you know, they set a marketing budget for the year and then they just spend the money, you know, cut up into segments, they might, you know, they might sort of allocate differently based on seasonality, but, but they just cut it off and they say, okay, they tell their agencies here, here's how much you can spend this month or this quarter. And we'll see you in a couple months. And we'll review. And then that's, that's how they operate. And so like a media mixed model, in that kind of environment makes a lot of sense, you know, you have this, you've got these long stretches of time, right? You know, where that you can, you can sort of use to observe these variations over time. You know, I think media mix modeling for most Dr. advertiser's is probably not, you know, appropriate, in the kind of traditional sense of that model. But we're moving more in that direction, just with the privacy changes that are taking effect. And and that sort of frameworks that are being introduced primarily by Apple at this point, but also by Google at some point, that'll that'll just make it very difficult to do that's really granular, you know, user level, especially, but like impression level attribution. And so I think there's there a middle ground, right, there's, you know, media mix model is just a big, very high level model that uses very few inputs, well, we actually don't need to use very few inputs on mobile, because we do have more granular inputs, they're just not user level, like, we don't have the full breadth of transparency that we had before. But we have, we have some stuff we have, we have some signal, we have some, you know, we have some post backs, right, with that scanner, we have post backs, right? with, you know, with the web with with PCM, we have postbacks. You know, with, you know, with flock, we'll have some data that's more granular. So, you know, we'll have, we'll have data that we can use, we don't really need to do a full on media mix model, one of the companies that the syndicate invested in is called incremental, they're building like an incrementality measurement solution that kind of sits between, you know, full on, you know, the sort of theorized, idealize, full on deterministic, which is like, we have absolute transparency and everything. And immediate mixed model, which is like, we don't care about anything below just total span and total revenue, they're building something kind of that sits in the middle of the treadmill that does measure, I should say, the incremental

impact of various ad campaigns. Um, so I think there's, there's ways to approach this, that sort of trend more towards the media mix model, end of the spectrum, then then most people have done before. But that's not full on media mix modeling, right? Because that's more of like, what you use, if you don't have any granularity, or it's just you have. So you have, so you have such a broad mix of things that it would be impossible to model each of them and then combine those those kind of models into something that was, you know, useful at all.

Adam Lovallo 17:19

Yeah. So. So you talked about incremental. And in the in the, like DTC ecosystem, there are a few companies Measured is a big one, Rockerbox. Dang, I'm forgetting a few others. But nonetheless, they're they're sort of, you know, modern attribution businesses, but but generally speaking, they're talking about incrementality. a lot. And my sense is, I'm curious if this is accurate, in the case of incremental or as you understand it, that they're relying a lot on geographic holdouts as being like the way that they can really measure everything really channel contribution, in that it's relatively easy in these digital channels to to hold out certain geographies, maybe maybe it's at a city or state or even a country level. And then you're really just looking at, you know, you're looking at the two halves is assuming it's split into where you ran the stuff and where you didn't is, is that central to what you're seeing in this like incrementality measurement space that this reliance on geographical doubts, or is it as it is, or more complexity to it, than that, or even just a different approach entirely?

Eric Seufert 18:34

With it, there's more complexity to I mean, you can get I think the next sort of the next sort of, like stage in the evolution of that type of product is to not really look at, you know, holdouts as broadly as at the GO level, but to us more just like variations over time, and spans that are just natural, that that happened naturally within campaigns, right. And then use that use those variations as like, the firm ground onto which, you know, these these, these models can be built, right. And so it's, you know, the way that the way that everything is moving, right in advertising measurement, and B because of because of, you know, this sort of changing privacy landscape is to be probabilistically modeled, or to do things that are sort of like in that do things that are that that sort of include privacy by default. And so that either either you use kind of like much, much sparser data, or much more limited data set. And you extrapolate out from that using like, you know, more sophisticated probabilistic methods, or you segment the data in such a way that it's private by default, right. So you have maybe the full access to for for various data sets, but they don't, they don't get combined in the way that they did before. Right. So you you you either extrapolate from a more limited data set or you have kind of the full data set, but you don't you don't combine it, it's all segmented into different segments, and they don't get combined. It's you're extrapolating out like that. How the combination you're sort of assuming or using probabilistic methods to assume how the combination that data would affect marketing performance. Right. And so there's sort of two different methods, I mean, that the, you know, the incremental, you know, the incremental, the company, that the, the approach they're taking is the is the first one, it's the, let's take this more limited data set that we have just kind of in the modern, you know, privacy centric marketing environment. And let's extrapolate out, meaning from that, right, let's try to replicate the same kind of reporting that we had before. But you know, we're using probabilistic modeling to fill in the gaps, you know, within the data set that you know, where the data is just missing from, from what we had before. And the other approach would be, you know, the kind of interesting things that you know, Google and other companies are doing with federated learning and differential privacy, right. So where we've got, well, differential privacy kind of belongs to the first group, but the, the, you know, we just take all the data, and it never really, it's, it sits on the device, right, so we push all the modeling onto the device, right? So the device carries all of this sort of models that we're using, and all the mechanisms that we're using to do, you know, sort of performance projections and performance forecasts, and we use your data, all of your data, but it never your data never leaves your device, your data doesn't get sort of ingested into this data environment that sits on the cloud, and it combined with everybody else's. And then and then use to sort of measure performance, it just sits on your device never leaves. And only this sort of like model coefficients get get transmitted between like the sort of central server and your phone, for instance, or your browser, or maybe there is no central server, and in those model coefficients just sort of, like, get passed around in a whirlwind across everyone's devices. And, and and, you know, browsers, it's I think that's, that's another really interesting approach. And I think, you know, the combination of these two different approaches, in some cases gets us to an environment that is very performance that is very sort of scientific and reliable, but also is very privacy centric, and

privacy protected.

Adam Lovallo 22:02

And just saying, Where do you find the like, in e-commerce, you know, post purchase surveying, but you see that it's kind of self reported user level. How did you hear about us type type surveying done, pretty much everywhere. How does that you think that kind of fits in to, to all the above, especially because that is, you know, completely platform agnostic, and universal and privacy friendly, etc, etc, etc. So what's your take on that sort of stuff?

Eric Seufert 22:32

Yeah, I mean, that's, that's just another tool in the tool belt, right? I mean, I wrote an article a couple months ago, titled, "The idfa is the Hydrocarbon of the Mobile Advertising Industry", and I kind of compared the idfa to, like, you know, it's like fossil fuels, and it's gonna be tough to wean ourselves off of it. But you know, they call it externalities, and somebody has to pay for it. In the case of advertising, you know, the lack of trust that's caused by the sort of perception that, you know, hey, these, these, these advertising companies are surveilling me, right? They're following me. And they're tracking everything I do. And it's not, they're not, they're not, you know, they're not sort of transacting as data as just, you know, coefficients to some, you know, opaque model that, that no one would understand they're transacting my name and my social security number, right? with data, bro. Right. And that's what people that's what people think. And that's an externality, right? Because that causes distrust, right? And so that maybe decreases the amount of money that people are willing to spend on, on, you know, on on goods online, right. And that's a problem, right? And so someone, no one is going to pay for that someone else make up for that, right. And so like, we, you know, we needed to wean ourselves off the industry needed to wean itself off of this, you know, user centric, identifier centric model, but it's gonna take, it's gonna take sort of an ensemble approach to do that, there's no one solution, there's no one replacement. And so things like, you know, post advertising surveys, and that's, that all just kind of fits in to this landscape, right, like, you don't replace hydrocarbons with something else, you replace them with wind and solar, and, you know, just, you know, there's there's a multitude of, and, and sort of geothermal, and there's an each of those kind of pieces, makes up for, you know, some some portion of the output of hydrocarbons, you know, in the energy economy. So, well, how do you do that with with privacy? How do you do that with digital advertising? Well, you do stuff like differential privacy, and then you do stuff like federated learning, and you do stuff like, well, well, we'll have some opt in levels, and we'll model from that. And we'll have, you know, post advertising surveys and we'll model from that and like, all of those, all of those components kind of contribute to make up for, you know, to try to fill in the giant hole that is left with the loss of you know, device centric, identifier centric, advertising measurement, I think but I think post advertising services it's great idea now, there's, there's some fuzziness to that right. A lot of a lot of people did that with influencer campaigns. Is that how did you hear about us, right? How did you hear about us and you say influencer, A, B, C, whatever. And you find that you know, when you can test that stuff, it actually works. Okay. Um, there's an error rate and there's a people just clicking whatever, rate but um, you know, for the most part, it's it's helpful signal.

Adam Lovallo 25:08

That's awesome. So let's say you're, let's say your mobile app advertiser or even like one of these DTC commerce people, right? And you're not a huge company, you're not Rovio, you don't have the kind of big teams and stuff that that a bigger team might. And practically speaking, if you're the DTC guy, you more or less look at, you know, what the facebook pixel says, what Twitter pixels as what the Snapchat pixel says, whatever, maybe look at Google Analytics, look at the business in aggregate. So like, you know, cost of sales kind of analysis, marketing as a percentage of revenue sort of thing. And you go go about your day, right? And in the in the mobile and mobile side, the equivalent would be you basically look at what the self attributing networks, say, and then you look at the blended overall, right?

Like, how do you see you're not super resource? Where do you think those types of advertisers will be a year from now? Like, are they still more or less just relying on what the channels are reporting, knowing that the channels themselves or are already starting to model performance? You know, as the the Facebook little tooltips, say, now? Or do you think that there's like a new suite of tools that they're using that that becomes standard? Because, you know, they're, they're just needed? Like, what do you think is practical for like, not a tiny advertiser, but you know, like, a smaller medium size advertiser?

Eric Seufert 26:32

You know, that's, that's the problem with this. It's, it's that and when I say this, I mean, you know, these, these privacy changes, sort of like being rolled out unilaterally, without a lot of input from the advertising industry, because a lot.

Adam Lovallo 26:43

That's an understatement.

Eric Seufert 26:45

Yeah, but but a lot of these small companies are not, they're not, you know, they're not insubstantial advertisers, they're small companies, no, but they spend a lot of money. And the reason they can spend a lot of money is because Facebook and Google have gotten so good at allocating their budget very well, and very efficient. Right, and so you get DTC companies that, you know, they're, they're running a Shopify store, they're, they're advertising on Facebook, and maybe a couple other channels, and they've got one person doing all that, and they're spending a couple million a month. And I see it a lot. And, and they, you know, all of that all of that analytical work has been abstracted away into the ad platforms, right. And so they just need to focus on you know, they focus on refreshing creatives, and they focus on like, kind of the top line metrics, but they're not doing a lot of like the analytical measurement work. That is that is that has been sort of outsourced to the platforms. And once the platforms can't do that anymore, well, then they just have to figure it out. And, you know, but but the, what a lot of people miss here. And, you know, I've been kind of banging this drum for a while, is that these companies represent a big chunk of, you know, just mobile advertising spend, and they only exist because of these platforms, because these platforms allows them to exist. And I really don't I mean, I wish I had a good answer. That is, I don't know how they manage to hold on to the same level of ad spin, right there. I mean, without having to invest into, you know, building out some of this, you know, analytical infrastructure. I mean, I don't know that there's like a spreadsheet solution here, where, you know, someone just takes a week, they build out this kind of model, and then they're, they're back in business at the same to the same degree. And, you know, a lot of that is because well, Facebook's going to get much less efficient in allocating their budget, and Google's gonna get much less efficient. So I honestly, I wish I had an answer that I think, because there's, there's a sort of, there's gonna be a deficiency on both sides, there's gonna be like, well, but these companies just aren't equipped to do that kind of analysis, and then then platforms are just gonna lose their ability to allocate the budget really well. And I do think there's going to be a different spin there. You know, now, now Facebook is, you know, modeling all of, you know, sort of ball performance. And maybe, maybe baseball is just so good at that it doesn't really matter. They don't they don't need that they had all their data, just an overwhelming amount of data before. But they didn't they didn't need it. Right. They they could have done, you know, that they could have they could have achieved the same level of efficiency without, you know, without most of that data. And if that's the case, then then then that's great. And then maybe we don't lose anything. I don't really think that's the case. So I mean, if I'm a DTC company, I've got one person working on advertising. They've been primarily using just Google or Google or Facebook. You know, I see a lot of the DTC people saying like, Well, no, come on, just just use the CAPI. And then you can still get the conversion data back to Facebook and we don't lose any. It's like, no, that's not how this works. This is like yeah, you know, this is like a total shift. This is a this is a this is kind of like a complete, you know, annihilation of the status quo. Right. You know, there's no quick fix like that. So, I mean, if I if I was, you know, in that position, I would just think how can I very quickly diversify my spend across more channels than just Facebook and I don't know if you can still do that. Which is the one person, right, maybe that requires building a team. And yeah, that creates more overhead and that needs in your margin. But maybe that's just what has to happen.

Adam Lovallo 30:08

Yeah, yeah, yeah. I think you've made a good finding point in that. Not in a misleading way. But I think the conversions API to CAPI stuff has been presented as like, here, just do this. And it's no problem. It's like, No, I mean, it's definitely a good thing to do. But it's, you know, we're talking about like apples and oranges here, like, it's not solving this? That's the fundamental problem, especially if you're right, that Facebook and other platforms to just get worse? Basically, it's spending the money like that, that's the forget about measurement, like what if there does less effective at allocating budget and targeting that's like, catastrophic for these businesses? Okay, um, this has been great. We've hit on incrementality measurement, we've hit on, at least on the edges of the, you know, the flock stocks, stuff that I barely understand multi-touch measurement we hit? Are there any other major measurement trends on your radar, that that, you know, are worth discussing or sharing? Or is that that relatively comprehensive sweep of the, the state of things?

Eric Seufert 31:15

I mean, there's, there's a bunch, I mean, I think, you know, if anybody is interested in this area, I would say the first place to start is go to the Google's privacy sandbox, GitHub pages or page or whatever, and, and they've got, you know, all these white papers for all these different solutions that they're building. And there's just a lot of really interesting things that they're out there. I don't know, pursuing, I don't know that they're building all of them per se, but that, that utilize just different approaches to kind of privacy preservation, for digital advertising. And, you know, a lot of this stuff is old, right, like, when I, you know, became interested and stuff, just realizing, like, you know, differential privacy has been used for a long time with, like, the US Census, for instance, like we're met, you know, a lot of a lot of actually, a lot of these privacy approaches come out of the field of medicine, right, because, you know, the data, they're so sensitive, right, but you know, it's, it's, it's so important to have like a, you know, kind of sizable data set to do to do tests on to try to extrapolate trends out of, but it's just, it's, it could be, it's, it's unacceptable, that, you know, there would be anyone that's identifiable from the data set. And so they've been using, you know, the medical field medicine, and in machine learning to the field of medicine has driven a lot of innovation. That got adopted by like consumer tech, but, like image recognition, for instance, a lot of that came out of like tumor detection systems for with with, you know, within like medicine. But anyway, you know, it, Google's Google's investing a lot of resources into this. And, you know, you can sort of discover a lot of this, you know, from I was never interested in this field, I didn't have to be right, I was just sort of practicing. Right, I was, you know, there was no need for me to understand this sort of what was happening under the hood. But now I think everybody kind of needs to, because the, you know, the marketplace is changing so fundamentally. But yeah, anyways, I would check out the Google privacy sandbox, you know, account on GitHub, and, and, you know, they're sort of presenting a lot of really interesting ideas that I think you know, will will ultimately represent, you know, that that part, that sort of mosaic picture that that, you know, is how advertising measurement is done, you know, and let's say in five years.

Adam Lovallo 33:35

Very cool. Okay, awesome. All right. Well, this is awesome. Thank you so much. Obviously, we'll be following your writing and so on, and maybe we'll even see you in person at MAU, either this year or next year.

Eric Seufert 33:48

Oh, I'll be there. Alright. See ya.

MAU[Talk] 33:50

Thanks for joining us. You can find Eric's contact information in the description of this episode or on our website at mauvegas.com. Make sure to subscribe wherever you get your podcasts, and we'll catch you on the next episode of MAU [Talk].