The Measure Pod: #61 WTF Google?! GA4’s Data API quotas are breaking things!

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### Intro

[00:00:15] **Dara:** On today's episode of The Measure Pod, it's a first, Dan is unhappy with GA4.

[00:00:20] **Daniel:** I think that's slightly an understatement. I'm very annoyed at Google Analytics 4. They have recently introduced some changes enforcing quotas into their Data API. You may or may not have seen that, but it's been everywhere and it's broken a lot of dashboards. Not just in Looker Studio, but in Tableau, Power BI and everything else that uses the API. You get to hear me be really annoyed, Dara quite enjoyed it, but let us know what you think. There's a form in the show notes, Google Form to submit your own question. This is a listener submitted question, so it would be really great to hear what you think, but also any other questions you'd like us to tackle. And that's it, enjoy the show.

[00:00:53] **Dara:** Enjoy.

[00:00:54] **Dara:** Hello, and welcome back to The Measure Pod, this is episode number 61, we're back after a little break, it's very good to be back. For anyone who's joined us for the first time, this is a podcast for analytics people to talk about all things analytics. I'm Dara, I'm CEO at Measurelab.

[00:01:10] **Daniel:** And I'm Dan, I'm an analytics trainer and consultant at Measurelab. Firstly Dara, that's a new job title, congrats.

[00:01:15] **Dara:** It is a new job title, I almost forgot. Yes, it is very recent, hot off the press. So we've appointed a new Managing Director, who is Steven Elliott, we're very excited about it, which means I'm now the CEO.

[00:01:27] **Daniel:** Oh, that sounds really cool. But more importantly, Dara, what are we talking about today?

Topic

[00:01:30] **Dara:** So our topic this week has actually been suggested to us through our contact form. I'm going to read it out. “The quotas that are being applied to Looker Studio now are breaking a lot of dashboards of ours. I'm curious on how you are solving this for clients that are not on a BigQuery setup.”

[00:01:47] **Daniel:** Yeah, that's a big one and I'm glad it came through the form. By the way, if you've got a question for us, of course the form is as always in the show notes and you can get in touch that way and we can maybe pick up your question next time around. But this is something I was thinking about anyway because it's such a big deal at the moment. And this is regarding the Data API. GA4’s Data API have recently started enforcing the quotas, the token/quotas, and thus a lot of, typically Looker Studio dashboards, but this applies to a lot of other stuff as well. It just started falling over and yeah, it is a big deal and I didn't want to over grandise the problem here, but this is a huge, huge problem in the move over to GA4 and the adoption of.

[00:02:24] **Dara:** Yeah and I think a key couple of words you used there were, you said recently enforcing, because these quotas themselves aren't actually new, but for some reason Google have decided to start clamping down on this. So lots of people who have been using, again, another important point you made is this isn't just about Looker Studio, and Looker Studio is just one place where you're going to be using the GA4 API. So there's going to be lots of other effects of this enforcement of these quota limits as well. The quotas aren't new and in fact, they also existed with Universal, but the enforcement of them is new and this is causing these problems. And there's been a lot of stuff online about this and a lot of let's say angry or dissatisfied people already blogging about this and talking about it on social media because it is messing up people's reports.

[00:03:09] **Daniel:** Well, I've got first-hand experience. I'm in the middle of building a pretty big and juicy dashboard for a client of ours using their brand new GA4 property that we got set up, and we actually had a conversation as suggested by us, we set up the BigQuery export, but straight away I'm like, oh, we don't need to use the BigQuery data source for this dashboard because we're just using the standard stats, we can just use the API and save yourself a bit of time, effort, and pain because none of us were super proficient or the clients rather weren't super proficient at BigQuery. So, going down that path, six weeks later, a couple of iterations rolled out for some testing with their kind of stakeholders, and now everything's broken. Every widget on every tab, it loads up fine, once a day, when you go into it, and then as soon as you change one of the filters, it's built to be interactive the whole thing falls over, and for the rest of the day it's fallen over. It's hard because it comes back to us actually, the people that are like consulting around this. So it looks like it's an issue on us and the advice that we provided. I know that's not the case, but it just feels that way sometimes when we are kind of responsible or accountable for the stack, the solution of Google where they're not on the front lines, we are. So yeah, I'm very, very aware of what this is and how it's annoying.

[00:04:15] **Dara:** Of course, we've gone in and we've built on obviously this request, this submission from a one of our listeners, they're experiencing exactly the same things. So these are dashboards you've been asked to build for clients, you build them, they work. And then a rule change upstream that we've got no control over suddenly means we've got a bunch of reports that are broken and we have to rush to fix them. And there's a few, it's probably worth us running through some of these quota limits, although admittedly, and at least this is the case for me, some of them are quite hard to, not hard to get your head around the quota necessarily, but it's hard to understand what might be contributing to hitting that because some of them they apply per project, per property. Some are per property, some are per hour, some are per day, some are concurrent. So there's a lot of different ways that you can actually hit these quotas and if they're being applied per property then if you've got other people using the dashboard, either editing or viewing, they're all going to be contributing to these tokens that you have a quota for.

[00:05:10] **Dara:** So you're not necessarily going to know what it is that's actually triggering the error, except possibly in the one about the 10 concurrent requests, which is probably the one that you were hitting with the dashboard that you mentioned. Because if you're changing a filter, you've got more than 10 pieces of data that you're updating, and then low and behold, you saw the error message saying that you'd breached the concurrent requests quota limit.

[00:05:34] **Daniel:** That's it yeah. I mean, the error is actually, until you click into the details, it's pretty ambiguous. It’s just “cannot connect to data”, and you're like, why? And then you click through and it says, ah, quota has been reached and it was the concurrency of all the requests. Just on the kind of jargon, because we're unpicking it too and it's not super clear, as you can imagine, it's a classic piece of Google documentation. But what we're talking about here is we're talking about tokens. Tokens are just a currency that the API is using, so it's just think of it as a currency they're using, and each request, depending on how much data you're requesting and the complexity, can be more tokens or less. So if it's a simple request, it could be two tokens. If it's complicated, it could be 25 tokens, we honestly don't know the price of tokens for each request until it's made. And there is a total daily cap, so that's your quota, so when we talk about the quota or Google talks about the quota, it's your daily allowance, like pocket money, like you have daily allowance of these tokens, of these currencies.

[00:06:21] **Daniel:** But there's actually a lot of other kind of lower tier quotas as well. So the concurrency one, so at the other end of the spectrum is how many requests you can make at the same time. But when it comes to things like building a dashboard in Looker Studio, that's really important because as your dashboard loads, it's concurrently requesting all this data at the same time. And the annoying thing with this is that on the free version of Google Analytics, because of course it's paywalled, and the 360 version is slightly different. But on the free version of GA4, you can have 10 concurrent requests at any one time. And I think what I was hitting is that I've got more than 10 widgets on my dashboard, more than 10 charts, more than 10 different charts with different data sets. And so as soon as I start filtering my dashboard, everything breaks because you can't ask for more than 10 things at the same time, which fundamentally changes the way that we can use Looker Studio and build dashboards. I can't put, I mean, I'm sure there's some small print that I'm not aware of, but I now genuinely can't put more than 10 things on a single page of a dashboard, which is crazy. It's actually crazy.

[00:07:18] **Dara:** Not only that, and you caught me out doing a quick bit of, some quick sums here as you finished your sentence, but you told me earlier, I know it varies, but what's the kind of average number of tokens? 10 to 25 or something like that.

[00:07:32] **Daniel:** Yeah so I mean, 10 to 25 is a good ballpark.

[00:07:34] **Dara:** So 10 to 25, so what I was just looking at there is, yes, obviously it's very annoying when you've got like a concurrent request of 10 just feels pretty low. It's 50 if you're 360, which I think most people could probably live with. But the number of tokens per project, per property, per hour, it's a bit of a mouthful, is 1,250. So if it's up to 25 tokens per request, that's only 50 per hour and that's bearing in mind you could have 50 users of that dashboard. So that's one request, per user, per hour. So you're going to hit that pretty easily I would say.

[00:08:08] **Daniel:** I mean flipping that on its head, you can have 50 dashboards because not all of these quotas are specifically about per project or per dashboard. What they are is that they are property level settings for your GA4 sort of property. So you can imagine like you've got agencies building dashboards, you've got every analyst, you've got every person that has access to GA4 can potentially set up as many dashboards as they like in Looker Studio, Tableau, Power BI, whatever tool you're using, even in Google Sheets. Everyone can pull data from this and pull from the tokens, and you don't know how many is left, who has access, and you can't stop that either. The only control you have is to stop people having access to GA4 fundamentally, and I think this is a really big deal.

[00:08:47] **Daniel:** If I'm a company of, you know, a hundred people and I'm the only one that's using GA4, I can be in control and manage that. But if I work at a bigger company with extra people, agencies, and other people accessing GA4, then there's absolutely no chance in hell that I'll be able to keep an eye on all of the requests that are going through. Even if there's like a business-critical dashboard that I need in Looker Studio, for example. Absolutely no guarantee that's going to be working when someone on the C-suite needs it, when they need it. That's it, there's no guarantees.

[00:09:13] **Dara:** Well no, because it's not just and I know you weren't necessarily suggesting this, but it's not just about having control over the dashboard or editing it, it's actually any user of that dashboard, it completely works against the idea of making these self-serve dashboards and just goes back to, you know, pushes us back to the, maybe it'll be a bit dramatic here, but it pushes us back to the days of having to lock things down and do individual pieces of work for individual requests. So it's pretty frustrating, it actually reminds me as well of, because quotas do, as we said, they do exist elsewhere and have existed for Universal and exist for Universal 360 as well. So like with the unsampled reports, you've got a daily property level quota for unsampled reports and it's that point again about not knowing who else is maybe using them. So if you see you've only got a little bit left in your daily quota, you've got to get in there pretty quickly to get, you know, if you want to download another unsampled report to make sure you get in before somebody else does.

[00:10:06] **Dara:** It feels like a bit of a backward step because one of the biggest benefits I think when GA4 was announced was the fact that it was so much less restricted. You didn't have to worry about the same kind of sampling thresholds and the same limitations that existed before and suddenly that's not the case anymore.

[00:10:27] **Daniel:** They're going to have to back down on this. I think Google have done this before, but they're going to have to back down or roll back and then reconsider this. Just because of the fact that, I mean, take editing a dashboard, building a dashboard is just now impossible. The 10 concurrent requests at a time, for sure, if you're viewing and all that stuff. Every time I add a score card or a bar chart into a dashboard in Looker Studio, every time I drag a dimension or a metric into that chart, it refreshes the data and it refreshes the data for all of the charts as well. And so every time you add anything or change anything into any chart on Looker Studio, it refreshes everything, and then you're using these tokens. Not only you're going to use the concurrency tokens immediately, because you'll be doing more than 10 things, even if you kept it under that, you'll be reaching the hourly limit because you know that means you have to batch your dashboard buildings per hour, so I can only run it for an hour and then I have to stop, then I join the next hour and get the new kind of allowance given to me.

[00:11:17] **Daniel:** It just becomes impossible actually from my perspective and the way that I've built dashboards over my many years of doing that, in Data Studio, Looker Studio, Google Sheets, whatever. The way I build dashboards is based on what's needed from the requirement or the client or the stakeholders. Not, you can have your 10 things and they have to be super simple. It's making me think now that using things like templates is going to be mandatory because I can't build my own anymore, I can't build my own dashboards. And I wonder, this is going to be interesting, I wonder, out of all of the GA4 templates in Looker Studios gallery, I wonder how many of those are breaching the concurrency things and they're going to have to roll back and back out of it. But sorry, just that was the rant over, but it was just, they have to back down. I think they're going to have to back down because everyone has broken dashboards now, including us, including our listener that wrote in with this question too. And I just don't think this is feasible. I think they're just going to haemorrhage clients and I don't think it's necessarily going to help people get onto GA4s 360 tier, which makes it manageable, basically it gives us the ability to build dashboards again, like we had before, and I don't think this is going to work in their favour. I think the fallout is going to be bigger than they're anticipating and I think they're going to have to revert or adjust the quotas or something.

[00:12:20] **Dara:** So let's say they don't. Then part of this question, well this was kind of a statement and a question. The statement was, Google have done this and it's breaking dashboards, and then the question was about how we are solving this problem or how you can solve this problem for dashboards that are affected. So what are some of the steps that you can take, and I'm not going to annoy you by saying just do it all through BigQuery.

[00:12:42] **Daniel:** Well, let's talk about it, let's talk about the BigQuery option. There's been quite a quick response from a lot of the communities saying just to use BigQuery. But the thing about that, there's two reasons why that's not a good answer here. First of all, it's such a barrier for a lot of people. The skills, the entry requirements in terms of skills, understanding the GCP, let alone SQL. Yes, it can be manageable, but it's a learning curve a lot of people haven't started yet. The second thing is that it's not the same data that's available in the API. There is a lot of data not available in BigQuery that is available in the API. And so it's not, we're not singing from the same hymn sheet. We can't replicate all the dashboards using BigQuery, that's just not doable. We need the API. Even if you are basing a lot of your reporting on BigQuery data, you still need the API to add in those additional bits.

[00:13:22] **Daniel:** They're my two frustrations with that answer. I know you're not saying that yourself Dara, but I think that's the two frustrations. But I do think BigQuery is the way to go now, BigQuery has to be the only other option we have. If you just needed page views by per day, then yes, you'll be able to do that via BigQuery very easily, and you can do a lot of cool, clever stuff in there. But like I said, it's those two factors, the learning curve, which can be overcome, but the lack of sort of certain data that doesn't exist in BigQuery, I think that's going to be a huge challenge. But that's where I think we can think of this slightly differently because the BigQuery export is automated and it's now part of the free licence of Google Analytics 4, all that kind of lovely stuff, etc. etc. But I think what's going to start to happen now is using things like maybe third party platforms. So things like Stitch, Funnel, Supermetrics, things like that to create a store of data, either in BigQuery or somewhere else, even in a Google Sheet, for example, of the API, summarise data. So on a daily basis, call the API, use your quota, use your allowance to query the data, store it somewhere, and then build your dashboards on that data.

[00:14:23] **Daniel:** So that is data warehousing, right? That is basically doing fundamentally what we'll be doing for other data sources, but almost treat Google Analytics as like two data sources. You've got the raw data through BigQuery, but then you've got your API data, which can be sort of aggregated stats, but it comes kind of full of all the bits that you'll be missing. So I think that's the way that we'll end up going or have to go really. We need the data, we're not allowed to use it natively anymore, so we're going to have to create some kind of work around solution, which I think a lot of these tools are going to be rubbing their hands laughing because I think a lot of people are going to have to need this very, very quickly.

[00:14:53] **Dara:** Yeah, and then what might happen is if the tools do quickly pivot to try and come up with solutions for this, Google could then back down, as you suggested earlier. So it's a little early I guess to tell, maybe some of that kickback hasn't managed to reach Google's ears yet. We'll have to wait and see, but there's other things then I think that could work well batching the data daily and storing it somewhere is a pain for people. It's something extra that they have to do, but that is an option. Let's be honest, none of these are brilliant options. You could have less data in your dashboard, which is you know, in theory it's great because obviously like how often have we seen dashboards that are just crammed full of data that never gets acted on? So, yes obviously in theory it would be great to have a dashboard that has like three numbers on it or something like that, or one number even, but in reality, that's not the world we live in. So telling clients that they should just cut back the amount of data they have isn't always going to go down all that well.

[00:15:49] **Daniel:** Well that oddly is actually what I'm having to do now. So we're talking about sort of tactical, actionable things of how are we working with our clients, or how am I doing it with this, in this specific example of mine is that I am having to reduce the number of charts. So what I'm doing is I'm spreading them over more tabs than just having one long canvas. Think of it more as like a screen, one screen rather than a kind of, you know, scrollable canvas of lots of data. So that's the first thing I'm going to start to do or have to start to do, or am starting doing because, you know, I'm in the problem right now.

[00:16:19] **Daniel:** But the other two things that I'm starting to experiment with just to see what again, keeping my fingers and toes crossed that they roll back this. But for now, what I'm having to look at is one is reducing the number of charts per page. The second thing is changing the refresh of the data source from every couple of hours or minutes to daily, because we don't need it every couple of hours. Another thing is to remove the interactivity as well, so rather than having an interactive dashboard where the end user can control the date range, can control the filters and control everything else. Take that out, take out any interactivity so that one call is made and that's it, it's cached. So Looker Studio does a good job of cashing data, so then that's done, and then if all else fails, the last thing that I've done and will maybe do more if those other things fail, is using the extract data source. And so that in a sense is creating almost like a temporary mini warehouse. And you say, pull out X, Y, and Z from GA4, store it in this one table on a daily basis and just keep that table going. So it is not ideal, it's just a way to get around these tokens. You call it once, and then you use that cached to build your dashboard. It's almost like doing the first option, creating that store of it, but just doing it all within Looker Studio, less ideal.

[00:17:28] **Dara:** I mean, that's all useful advice and obviously what our listeners won't know is, I've just been shaking my head, listening to you and not to do with what you are saying, but to do with the fact that those issues, it's a common theme through all of those, which is, it's basically taking away interactivity and control from the end users of the dashboard which in many, many cases, if not most cases, the whole point of a dashboard is to give that over to the end users so they can self-serve. So, you know, anything that's going to take away, it's basically just going to create more work for the analysts. Because if your end users can't query the data themselves, they're just going to come back to you and say, can you just find out for me and it's just going to create more work for the people who were trying to offload some of that by building the dashboards in the first place.

[00:18:09] **Daniel:** It's really hard to be positive about GA4 when they do stuff like this. I do a lot of work with Google Analytics 4 in terms of training and usage and implementation, and it's really hard to sell it as a valid successor to Universal Analytics when they come out with things like this. I get it that it's more of a marketing tool. I think we've discussed it lots, how Universal Analytics was a data tool first and a marketing tool second. GA4 is a marketing tool first and a data tool second, but this kind of makes it kind of redundant from a data perspective. They might as well have called this Google Ads Analytics. You know what I mean? They may as well have just called it Google's marketing platform analytics solution. Like it's not really an independent data tool anymore, it's purely a way of measuring ad performance using machine learning and syncing that with your campaigns to optimise. Which is great and a really powerful feature, but for a lot of people that maybe don't put all of their eggs in the one Google Ad basket or people that want to use it from a data perspective and have some dashboards, I'm struggling to understand and thus, kind of sell the value.

[00:19:05] **Daniel:** This is probably the biggest single negative impact they've done ever since they've rolled out Google Analytics 4. And then there's lots of stuff. It's just, yeah, it's fine because of X, Y, and Z. It's fine because of that, or you know, it's not as bad as you're making it out to be. Whereas this is like, I have nothing, I have nothing on my sleeve, I have no justification. I don't know why Google has done this. And yes, it's annoying and yeah, it sucks, doesn't it?

[00:19:27] **Dara:** How I can say for certain that this is the most backwards, or counterproductive action they have taken is because I don't think I've ever heard you this unhappy about GA4. I think that is the proof of what a bad, bad move this is.

[00:19:40] **Daniel:** Yeah maybe, I'm lost for words, so if I can't figure it out how does anyone else expect to. I'm not exactly the biggest fanboy of it, but I could understand, right? I was always understanding and I was just like, you know what, it's not the end of the world you know, it's just Google Analytics, jesus. Whereas this is like, it can make the whole thing redundant. It can make the whole use of the product, if you can't build 4 dashboards and have 10 people look at them, then what's the point?

[00:20:02] **Dara:** Well, exactly. And just to go back to something that we kind of quickly mentioned earlier, this isn't just affecting Looker Studio, not by any stretch. This is anything that uses the Google Analytics 4 API. So this will be other dashboarding and BI tools like Tableau and Power BI. And it'll be, you know, any kind of custom-built tools that anybody's using internally that's pulling data. Even my old friend, the Google Sheets, you know, pulling data from Google Analytics into sheets that's going to be affected. So basically anything that's querying the Google Analytics 4. The GA4 API is going to be affected by these quotas.

[00:20:42] **Daniel:** Yeah and this raises a really interesting question that is not my question. I've seen this raised a hundred times elsewhere, but why doesn't Google give preferential treatment to the other Google products. Why does Looker Studio use the standard API. Why isn't looker studio exempt from the quotas for example. If the Google ecosystem can self-sustain and support itself using Google Analytics, BigQuery, Looker Studio, Google Ads, surely that's what they want people to do. By putting this huge block in for one of its own products now people think of this as a, and I've seen this come up a bunch of times on forums. It's like, my dashboard is broken, my Looker Studio dashboard is broken, what's wrong? And it's actually, no, this is Google Analytics doing something, so I bet the Looker Studio team are hating it right now. I bet they're like sending a bunch of angry emails to their kind of extended colleagues being like, what the hell are you guys doing? Like, everything's coming back to us now.

[00:21:30] **Dara:** I need to stop with the blast from the past. But it reminds me of when the Google Search team first obscured the search query and everybody was complaining about Google Analytics and was like, this is not Google Analytics. And in fact, it's going to affect every analytics tool, this is Google Search doing this. So you're right, a lot of the stuff online is about the, you know, this breaking Looker Studio. Of course, it's not Looker Studio's fault and also it's not just affecting Looker Studio, it's a GA4 API thing.

[00:21:56] **Daniel:** So back to the question, what are we doing? We're doing a bunch of workarounds that we are really, really hoping we don't have to do for very long before Google realises the grandeur and the scale of this cockup and rolls back or makes it a bit more lenient. So, apologies it's not a great answer, but it is the answer that we're working with right now and we're still banking on the fact that Google are going to revert this or update this and make it a bit less crap. But at the moment it's yeah, it's unusable the way it is, and I don't think, like I said before, I don't think this is going to do what Google might expect to do and push people onto 360. I think this is going to do the opposite effect and I think people maybe start pulling out more seriously.

[00:22:32] **Daniel:** I mean, the fact that four countries in the EU have already come out, sort of saying sort of big terms like Google Analytics is illegal, that didn't stop people using Google Analytics in the most part, right? Blocking things like the API into Looker Studio is potentially going to stop people using Google Analytics. And I think this is, like I said, the single biggest impact they're going to have on their user base I think, in terms of that transition. I think people are going to more seriously consider other solutions or they'll just stop using Looker Studio and they'll just log into GA (Google Analytics) and get the data there. And you know, but again, it's just such a worse experience and I don't want to give a lot of people access to GA4 a lot of the times you know, that's in itself is another learning curve, this is the issue.

[00:23:06] **Dara:** Yeah and actually again, that was something that when GA4 first came about, it was, you know, the advice was almost don't use the interface because that's not, you know, the benefit of it is that you can get it into BigQuery, you can get it into, well what was Data Studio. And this was, I think this was even advice coming from Google. It was like, oh, you know, don't focus on the interface too much because you don't need to, you can work with the data outside of it. It would be quite a turnaround to then say, oh, actually, you know, don't worry, you can get all this data in the interface. I look forward to us being able to do a follow up episode where we say, oh, don't worry about all of that, it's all fine, it was a mistake, and everything's back to normal now.

[00:23:43] **Daniel:** I look forward to that episode, Dara.

[00:23:45] **Dara:** Hopefully it's going to be the next one.

[00:23:46] **Daniel:** Yeah, me too. I'd love that to happen.

Wind down

[00:23:48] **Dara:** Never have I been happier to ask you what you've been doing to wind down outside of work because I think I'm worried that this is just going to wind you up too much. So what fun things have you done outside of work lately?

[00:23:59] **Daniel:** What fun things have I done? Well, any of our longstanding listeners may have remembered that I have become a certified Skateboard GB coach, so I can now teach skateboarding. So I've managed to rope one of my friends who lives locally into teaching him how to skate. Actually he requested, he wants to learn how to skate and I'm not charging money for this or anything like that, it's basically I'm teaching my mate, but I'm using what I've learned to do it. So I've now had my first session with him on last Saturday as of the time I'm recording and yeah, we're going to make it a regular thing and he's really excited, he's loving it. So I've started to flex my skateboard teaching skills, which has been really, really nice.

[00:24:35] **Dara:** Amazing and nice to try out those skills with a friend as well, just to kind of ease yourself into it.

[00:24:39] **Daniel:** Yeah, exactly. There's no pressure, he's not a kid, he's not paying money for something. So he is not sort of demanding or expecting a huge thing in return. Yeah it's more social than anything, but it's formalised, you know, it's enough to be fun. But anyway, that's me. How about you Dara, what have you been up to?

[00:24:51] **Dara:** Well, I mean should I mention that I've got glasses? Does that count as a fun thing? I'm not sure it does to be honest, but I am actually weirdly quite excited about it. I am now a glasses wearer as of today, so, you are one of the first people to see me wearing my new glasses. Our listeners don't get to see it, they'll just have to trust me unless they bump into me somewhere. But yeah, as of today, I'm a glasses wearer. But that feels like a bit of a cop out so I'll give you another one as well and then I'll be under pressure next week. And I don't think I've mentioned this before on the podcast, but I've been learning and that's a real stretch, saying learning, but I've been learning a little bit of Vietnamese. I'm in Vietnam in January so I'm trying to just learn a few basics just so I can at least make an effort while I'm over there. It was really difficult at the beginning and it's not getting that much easier, but it is a little bit easier now. I'm starting to kind of understand and, you know, and get some of the pronunciation, at least I think I am. But the test will be when I'm over there and I try and practise it and people just look at me like I'm crazy. But it's been fun actually and I'm just doing it with Duolingo. I'm not taking lessons or anything, but it's been quite fun.

[00:25:57] **Daniel:** All right Dara, putting you on the spot. Let's say goodbye in Vietnamese.

[00:26:01] **Dara:** Tạm biệt.

[00:26:03] **Daniel:** What he said.

### Outro

[00:26:04] **Dara:** That's it for this week, to hear more from me and Dan on GA4 and other analytics related topics, all our previous episodes are available in our archive at [measurelab.co.uk/podcast](https://www.measurelab.co.uk/podcast/?utm_medium=podcast&utm_source=transcript&utm_campaign=61) or you can simply use whatever app you're using right now to listen to this, to go back and listen to previous episodes.

[00:26:22] **Daniel:** And if you want to suggest a topic for something me and Dara should be talking about, or if you want to suggest a guest who we should be talking to, there's a [Google Form](https://docs.google.com/forms/d/e/1FAIpQLSeMwfzg9TdNKeZYRxHci_y0D9up4EyAL5zNMYZNE9P_82fz3Q/viewform) in the show notes that you can fill out and leave us a note. Or alternatively, you can just email us at [podcast@measurelab.co.uk](mailto:podcast@measurelab.co.uk) to get in touch with us both directly.

[00:26:39] **Dara:** Our theme is from Confidential, you can find a link to their music in the show notes. So on behalf of Dan and I, thanks for listening, see you next time.