

Episode 95 | Africa can chart a new course
Ali Hussein Kassim, Ali Talks Tech
Released July 9, 2024

DR:

[00:00] I'm DR and this is Telco in 20.

[00:14] It's no secret that telcos across the globe are grappling with how to monetize their shiny new 5G networks. That's because, back in the aughts, operators offered unlimited plans to their subscribers in order to grow their revenue. Then in 2007, the iPhone was released and data usage took off, but it was too late. Carriers couldn't put the unlimited genie back in the bottle. And telcos in places like the United States and Western Europe have struggled to monetize network usage ever since.

[00:42] But things could go a little differently in Africa. Only 1% of telcos on the continent have implemented 5G. 22% are on 4G, and a whopping 76% are still operating 2G and 3G networks. This late adoption of 5G could turn out to be a huge opportunity for African carriers. And thanks to the billions of US dollars that the hyperscalers have invested in the continent over the last five years, African operators now have access to leading-edge technology that opens up a world of possibilities.

[01:11] They can use awesome tools like Totogi to integrate their older networks with AI and the public cloud. And reap amazing advantages like lower cost, unbelievable scalability, and the ability to monetize their networks like crazy. In fact, there's a telco in Sudan that's already doing this. Today I am a guest on Ali Talks Tech, a podcast focused on Africa's changing technical landscape with host Ali Hussein Kassim. We're going to cover how I got my start in Telco, just how African telcos can capitalize on using the public cloud with their 2G and 3G networks, and how AI and innovative tools like Totogi are driving real change across the continent.

[01:51] Just a note, Ali has a video podcast. If you want to watch the hour-long version of our amazing conversation, head over to the TelcoDR YouTube channel. It's kind of long, so we've created a condensed version for our Telco in 20 listeners. I hope you listen to both. So let's take 20.

Ali:

[02:12] Hi everyone. This is Ali Hussein Kassim on Ali Talks Tech. I am super glad today to have Danielle. We call her DR. I just met her a couple of weeks ago in Diani during the Novacom Summit.

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DR: [02:29] Yes. It was my first time to Kenya, and I'm so glad to be back and see you again.

Ali: [02:33] Yeah. Really, for me, I just found you so fascinating. Breaking the barriers, no glass ceiling, and really saying that telco needs to move to the public cloud. Apart from that, you have a \$1 billion telco fund. So let's talk about Danielle today.

DR: [02:55] Yeah, let's do it.

Ali: [02:56] Absolutely.

DR: [02:56] Yeah.

Ali: [02:57] Great. So Danielle, tell us a little bit about yourself, a bit of background. And then how did you get to become CEO of not just TelcoDR but CEO of Totogi?

DR: [03:11] Yeah. I'm from America. I'm from Texas. I think what people notice about me the most is my work ethic. I've always put a lot of heart into everything that I do, and I think it's something that you see throughout my career, as I'm now 53 years old. But it's always been about trying my best and trying my hardest. And so I was lucky enough to get into Stanford University and majored in computer science, which was also kind of crazy. There weren't a lot of women doing that back in the early '90s. And what's really interesting about me is that a lot of CEOs, maybe they were always in sales and marketing and went to the top.

Ali: [03:45] Yeah. Yeah.

DR: [03:46] I did a bunch of different things. I was in technical and then I was in sales and I was-

Ali: [03:51] Did you code?

DR: [03:52] I coded. I did. I then found myself in human resources.

Ali: [03:57] Oh, wow.

DR: [03:57] I did recruiting, I did leadership development, I did compensation.

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Ali: [04:03] That's interesting.

DR: [04:05] This was in, like, 2009.

Ali: [04:05] Oh, wow.

DR: [04:05] And then I got asked to become a turnaround CEO and I was like, "Me? Are you sure? Really think I could do that?" And so a turnaround CEO goes into distressed situations. There's a product, there's usually revenue, and they just have, like, an arithmetic problem.

Ali: [04:21] Some glitches that need to be solved.

DR: [04:22] Yeah. I mean it's usually like they can't figure out how to run the business more efficiently such that they're generating enough profit to do the things that they want to go do. And I don't know what it is about me, but I'm like off the charts good at that. So I did that, and I've run 20-plus companies. Yeah.

Ali: [04:39] You did turnaround situations, 20 companies?

DR: [04:43] Yeah.

Ali: [04:44] How many years was that?

DR: [04:46] From 2009 until basically... I mean I'm kind of still doing it, but 2020. And the last time I was placed as a CEO, it was a publicly traded company, which I had never done, in Canada, and it was telco. And that's how I came into the telco.

Ali: [05:03] That's how you came into the telco industry.

DR: [05:06] Yeah.

Ali: [05:06] Oh, wow.

DR: [05:07] There was this company that was near bankruptcy. I went in and turned it around and made it profitable. It took me about 18 months to do it. And the problem was that it was shrinking 25% a year.

Ali: [05:20] 25% is steep. Four years, you are gone.

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- DR: [05:24] Yeah, it's very difficult to recover.
- Ali: [05:25] Yes.
- DR: [05:25] But what's so funny is that that time in HR, working through employee issues, shrinking an organization, growing it rapidly, promoting people, looking for high potential, that actually serves me really well as a CEO, especially when I'm going into turnaround situations.
- Ali: [05:41] Yeah so back in Diani, the thing that really intrigued me is your views around telcos globally and telcos in Africa, and specifically the Zain conversation. So we've talked about Zain. Where do you see the future of telcos in Africa and globally? What are the challenges? What are the opportunities? After all, you are running a \$1 billion telco fund.
- DR: [06:17] Well, I think Africa has immense opportunity. Most of the networks running in Africa are not 5G, right? And if you look at United States and you look at Western Europe, a lot of the telcos are already onto the fifth generation of the network. I think 20-something percent is 4G, leaving most of it being 2G, 3G. Now, 2G is the '90s. 3G is like early 2000s. And the biggest problem they have is that they let the unlimited data genie out of the bottle early on 3G and they can't put it back in. And their challenge is that data is growing and voice is shrinking.
- [06:58] Meanwhile, networks are costing billions of dollars. I think in the United States, you know, Spectrum plus the build-out, something like \$50 billion per telco. So that's 50 times three.
- Ali: [07:10] Wow.
- DR: [07:10] Verizon I think spent 50. AT&T, 50. And now they can't get the ROI on the network. So I think what's happening in some of these other places where the network is on the latest generation, it's stopping them from doing 6G because they're like, "We couldn't get the payback on 4G. We couldn't get the payback on 5G."
- Ali: [07:26] Why the hell are we going to 6G?
- DR: [07:28] Why are we going to 6G? We can't pay for it.

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Ali: [07:30] Yeah.

DR: [07:30] There's no ROI there. There's no additional revenue. So if I look at Africa, you guys have not taken the unlimited plan out of the bottle. You're not on networks that people are downloading movies at the edge on their smartphones. So I think the big opportunity for Africa is to not copy what the rest of the world has done. Don't do what everyone else did, and take a different path.

Ali: [07:52] So how would a different path look like?

DR: [07:54] One thing that's interesting is that, back in the '90s and the aughts, things like public cloud and AI didn't exist. One thing about Zain Sudan is it's a 2G network connected to a public cloud.

Ali: [08:06] That really shocks me.

DR: [08:09] It is shocking. Because a lot of times I think other vendors are like, "Well, if you're a 2G network you have to use our 2G version, which is old tech."

Ali: [08:16] Yeah.

DR: [08:16] But Totogi is building tech that can work with 2G, 3G networks. So you can bring this modern technology, cheaper cost, up in the cloud, latest and greatest computation power. I think it's an amazing opportunity.

Ali: [08:31] So Danielle, let's geek out a bit. How did you do it? How did you take a 2G network and make it work with AWS?

DR: [08:43] It's pretty easy, to be honest. You know, there's this little piece of technology that knows how to speak 2G, and then we have a converter that speaks to Totogi. And it's literally just like an electrical plug converter, and it works. You're plugging into 2024 with tech from the '90s. It's insane.

Ali: [09:02] So basically what you're telling me is you use the same thinking of these conference translators. You put in your mics, and somebody's talking French and you can hear in English. That's what you did?

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- DR: [09:18] Yes, correct. You know, I'm spending a lot of time in Africa this year. I'm really excited to talk to these telcos of, like, "Whoa, whoa, whoa. You don't need to accept this older tech for your old networks. And also, don't copy the world and do unlimited and get yourself into this terrible situation that you can't monetize the network."
- Ali: [09:36] I'm really hoping that African telcos will listen because if we can learn anything from mobile money, it's that if you really think differently, mobile money is not only driving financial inclusion, it's driving financial inclusivity across Africa. And that's a telco product.
- DR: [09:58] Right. Using your phone to pay. Yeah.
- Ali: [10:00] Yes. Actually, in Kenya, M-PESA, the mobile money platform from Safaricom, is so prevalent that no bank can have a digital banking or mobile banking strategy without M-PESA. I mean, how crazy is that?
- DR: [10:17] Yeah.
- Ali: [10:18] So two years ago I participated in a McKinsey study that was looking at FinTech across Africa. 10% of payments in Africa are digital. Only 10%.
- DR: [10:32] Wow. Still a huge opportunity.
- Ali: [10:33] We are just starting to scratch the surface. And telcos like Safaricom and MTN in Southern Africa are now the platforms, the de facto financial services rails.
- DR: [10:52] And this is a great example, I think, about how Africa doesn't need to follow in the same footsteps. You're already not with this FinTech kind of angle. With Africa, so much of the land being non-dense population, rural, the big expense is the rural build-out of the network, where your cost per bit, the math on that really drops. That becomes very, very expensive. But you start to think about what Elon Musk is doing with Starlink with the low earth orbit satellites that now can do satellite-to-cell.
- Ali: [11:26] Yes.

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DR: [11:26] And maybe the cost per bit is more affordable, especially in Africa, right? It might still be a little bit too expensive, but I mean that thing's incredible.

Ali: [11:34] It is.

DR: [11:35] He's providing support for Ukraine, right? He's been doing it in the United States. I think he's with MTN in Rwanda and Nigeria.

Ali: [11:43] That's correct.

DR: [11:44] In Kenya.

Ali: [11:46] He's amazing. Crazy, for sure, but he's amazing.

DR: [11:49] I know. But I think, like again, Africa has this great opportunity, right, where you can plug in your old tech to AI and the cloud, and now you're using the tech talent of the 100,000 people of AWS.

Ali: [12:01] Yes, of the big boys. Yeah, of the big boys.

DR: [12:03] Why wouldn't you use that?

Ali: [12:04] Why not? Yeah. So TelcoDR.

DR: [12:05] Yeah.

Ali: [12:09] Tell me a little bit more about TelcoDR. What deals are you chasing? What are the opportunities you see in Africa?

DR: [12:17] Yeah. I mean, there's really two sides to TelcoDR. And the fund, as you mentioned, we raised a \$1 billion fund to transform the technology of the telco industry. And really, the insight there was, all the tech was written like the '90s and it really hasn't had a fresh look and said, "Hey, you know public cloud is ready for telco, and the public cloud tech is ready for them to use. And let's rewrite everything for the public cloud."

Ali: [12:39] Okay.

DR: [12:40] So I'm doing two things with this fund. And the first thing is I'm buying telco software companies. Old ones,

bankrupt ones, carve-outs, tiny ones, big ones. Whatever it takes to pivot the software for the public cloud and for AI. So when I said at the beginning that I'm still kind of a turnaround CEO, I have a team that helps me with that. But yes, we're still taking these businesses and pivoting them to generate high profit, but also getting them for a change in the technology.

Ali: [13:09] Okay.

DR: [13:09] And then Totogi, as you mentioned, is the startup that is brand new tech created from scratch, ground up, cloud-first, now AI-first. Really designing for where we see the next 10 years of tech going. And so a lot of people ask me like what part of the world are you focused in? We're certainly seeing a lot of great traction in Africa. Again, these opportunities that I'm talking about, right?

Ali: [13:32] Yes, yes.

DR: [13:33] The lack of access to talent, the lower cost of the cloud, the ability to bring in new tech with the old network. I think telcos are waking up to that in Africa. But we're doing stuff in India, right? We're talking to people in Latin America. I have customers in Asia-Pac as well. And so we're everywhere. We're trying to do everything, and you know, I'm hoping to move as fast as I can before people wake up and realize that I'm 100% right.

Ali: [14:00] Any deals you are chasing Africa in that sense?

DR: [14:02] Yeah. There's actually quite a lot of activity in Nigeria because the regulator there, the Nigeria Communications Commission, announced that they wanted MVNOs, mobile virtual network operators, these are people who buy connectivity from a telco and then resell it. There were no MVNOs in Nigeria, and they issued more than 40 licenses of different tiers. Understandably, the MNOs don't like that. They're really pushing back. Obviously, the MVNOs are very excited to go do that. And so, as a technology vendor, that's a great opportunity.

[14:37] And so we're talking to both sides. We're talking to the operators and we're talking to MVNOs that are looking for modern tech. And what's really interesting with MVNOs is that

the MNOs really kind of put it to the MVNOs and make them commit to a certain amount of connectivity. And so it's usually millions of dollars upfront when MVNOs don't have subscribers.

[14:56] And so the failure rate on MVNOs is kind of similar to startups, and so MVNOs really don't want to pay for a lot of technology upfront. They want to keep that cost really low. And I think that's where the public cloud is really great.

Ali: [15:08] Yes.

DR: [15:09] Public cloud allow, especially the Totogi tech, is designed to be pay as you grow.

Ali: [15:13] Yeah.

DR: [15:13] So we have a free tier for the first 250,000 subscribers. And then if you want to start to use the AI and all this other cool tech, you'll start to pay for that.

Ali: [15:21] I love this.

DR: [15:22] But you can get up and going, launch your business. If it doesn't work out, cancel it. The MNOs like that, too, because they don't want to have to spend like \$10 million upfront for businesses they're not in control of. And so I think both sides really like this equation.

Ali: [15:35] I love the fact that you've taken a freemium model, which is very prevalent in SaaS businesses, into a hidebound telco industry.

DR: [15:46] I think my competitors are upset by that because they're very old school. They're perpetually licensed, you know, millions upfront, projects that take a year or two before you can use them, right? It's a terrible model. And I'm like, "Guys, just use it. If it doesn't work, stop." Right? We want them to be successful. We don't want you to be utilities, right? You guys have the best data in the world. The best tech companies, Google, Amazon, Facebook would love the data of how people use their phones, who they're calling, where they go, what they do. And telcos have it.

Ali: [16:20] I'm glad you say this.

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- DR: [16:22] Yeah.
- Ali: [16:25] For me, I think one of the greatest opportunities ever for telcos not just in Africa but across the world.
- DR: [16:31] Yeah.
- Ali: [16:32] I have this monthly plan which I pay for. I get silly SMSs every other day telling me to buy a daily plan. I'm like, "Are you guys out of your minds?"
- DR: [16:44] This drives me insane. And it happens in the United States, too. I have an iPhone 15 and they're like, "Get an iPhone 14 Pro." And I'm like, "Guys, you know my device. How do you not know how to target these messages?" Like you know, when you check out at Amazon or these places that have really figured out how to hyper-personalize, like, "People who have bought this, bought this." Or, "You buy this all the time. This is what you should buy next." I don't understand why we can't figure this out. Actually, I do understand why. It's because they're using tech where all the data is in 1,000 different databases and they can't bring it together. It's really, really hard for them because their technology was not designed with this in mind.
- Ali: [17:24] If we can solve that I will have less blood pressure moments, but we will create some fantastic business models.
- DR: [17:36] No, the opportunity is insane. And I mean I think you need to use the public cloud because the scale of the data is pretty immense, right? We're talking petabytes. Tons of data coming off of the network of what people are doing. It's not impossible to build it yourself. Our whole engineering first principle is to leverage the technology of AWS. They have SageMaker machine learning, they have bedrock generative AI foundational models. They have pinpointed and personalized these tools. I put it together, then put a telco spin on it, and then send it to my customers. I'm not doing all of that engineering. People are like, "How are you able to pump out all these products?" I'm like, "AWS."
- Ali: [18:16] Exactly.
- DR: [18:17] AWS has all of the LEGO pieces I need to put things together and then put it out to the telcos.

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Ali: [18:23] You are just putting them together.

DR: [18:25] I'm putting together with a telco-specific spin on it. And everyone's like, "Aren't you worried that Amazon's going to come after you?" And I was like, "They're going after all of enterprise."

Ali: [18:34] 100%.

DR: [18:34] They're not trying to take over telco. Just think about where the telcos are. I mean they have most of their stuff on-premise in a bajillion different databases, all this different data heavily customized. They weren't ready for the cloud transformation. And now we have the AI transformation, right? Where people are ripping out incumbent vendors like Salesforce. I mean think about the pressure Salesforce is under. Salesforce's business model is priced by the user and, with productivity improvements with AI, you don't need as many salespeople anymore. So what is Salesforce going to do, right?

Ali: [19:06] You know back in 1999, I was working for a digital agency and we were looking for a CRM platform, and Salesforce had just launched.

DR: [19:16] It was a disruptive technology.

Ali: [19:18] All this hullabaloo. I mean, they were really the first humongously, globally scalable software as a service.

DR: [19:26] For sure. They invented SaaS. They put SaaS on the map for sure.

Ali: [19:30] And now they're being disrupted.

DR: [19:32] But everything comes to an end. And I think Bezos said this when he was maybe the last year of his tenure before he left being CEO of Amazon. He's like, "There's a day where Amazon dies, too."

Ali: [19:43] Yes.

DR: [19:43] It's so crazy to think about it, but everything dies, even companies. Yeah.

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Ali: [19:48] So let's wrap it up with a crystal ball.

DR: [19:53] I'll try.

Ali: [19:53] A telco crystal ball. Where do you see these trends and innovations going?

DR: [20:00] I think it's going my way. And strategy is one piece and the other big piece is execution. You have to go do it. And it takes a lot of hard work. And I tell my team, "How do you eat an elephant?" And you don't do it in one bite. One bite at a time, right?

Ali: [20:14] One bite at a time.

DR: [20:16] So Telefonica Germany announced that they were putting their 5G network completely on AWS, right? It's the second telco to do that after DISH in the United States. We have two other telcos, AT&T and Etisalat, in UAE that are using Microsoft Nexus. Things are going my way, and now it's up to me and my team to execute, right? I'm all about heart and my work ethic, which I talked about at the beginning. Let's see what happens.

Ali: [20:41] So I'll just simply end by saying, Danielle, here's to the crazy ones, because the ones who are crazy enough to think they can change the world are the ones who actually do.

DR: [20:52] Correct, and I'm one of them.

Ali: [20:54] I will be cheering for you, Danielle.

DR: [20:56] Yay! Well, Ali, this was a great conversation.

Ali: [21:00] Absolutely. I have had such a fantastic conversation with Danielle today. And I will end up with a Swahili word that says, "Thank you very much. Asante sana."

DR: [21:12] Yeah. I'll say, "Gracias," which is Spanish.

Ali: [21:15] Gracias. Thank you.

DR: [21:15] Take care.