Telco in 20 episode intro:

I'm Danielle Royston… And this is "Telco in 20"

We're hitting the road!

I've been in London, celebrating 'Telco in 20's' first anniversary, and chatting it up with those 'cloud lovers,' Scott Bicheno and Iain Morris from the Telecoms.com podcast.

That's right, I went to the home turf of the cloud skeptics.

And I was psyched to be a guest on the other, bit podcast in telco.

I mean if you're going to listen to two podcasts in telecom, it's "Telco in 20" and Telecoms.com, right?

Those guys like to record their podcast on Friday afternoons, and pop open a couple of beers and chat about what's going on in telco.

So I brought some killer craft beers, all the way from Austin, Texas, to loosen them up for our chat about the public cloud.

And so, we sat down to talk about why the public cloud is so awesome for telco.

This episode brings that conversation to you.

Fair warning, the Telecoms.com podcast usually runs about an hour and change.

Very different from our 20 minute podcasts.

So settle in and get ready to listen to our fun debate about the public cloud coming to telco.

And don't forget that I'm hosting a LIVE coding workshop as part of TM Forum's Digital Transformation World Series, where you can learn how to build applications with the TM Forum Open APIs, Totogi, and AWS.

So send me a DM on Twitter @TelcoDR or message me on LinkedIn and I'll get you on the list.

And now, here it is, a rare, dual-release - "Telco in 20" and Telecoms.com -- podcast.

Let's take one twenty.

Begin Telecoms.com interview:

Scott Bicheno (00:00:00):

Hello and welcome to another Telecoms.com podcast for the second week running. We've got a very special guest, and this is the much-trailed Danielle Royston. Welcome, Danielle.

Danielle Royston (00:00:09):

Thank you.

Scott Bicheno (00:00:09):

Great to have you here at long last.

Danielle Royston (00:00:10):

I am psyched. I am psyched. I feel a little bit like, uh, Obama going on to Fox News with you guys.

Iain Morris (00:00:15):

(laughs)

Scott Bicheno (00:00:15):

Right.

Danielle Royston (00:00:15):

So I am like the public... You guys tend to write a little bit about the public cloud.

Scott Bicheno (00:00:19):

Am I... Am I Tucker Carlson?

Danielle Royston (00:00:20):

(laughs)

Iain Morris (00:00:22):

(laughs)

Scott Bicheno (00:00:22):

Okay, I dunno. I'm all right with that.

Danielle Royston (00:00:23):

(laughs)

Iain Morris (00:00:23):

(laughs) Oh god.

Scott Bicheno ([00:00:24](00:00:24)):

Um, so yes. So, obviously, um, one thing we flagged up whenever we talk about a public cloud, Danielle's name often comes up because you're a self-proclaimed public cloud evangelist...

Danielle Royston ([00:00:34](00:00:34)):

Yeah. I am the...

Scott Bicheno ([00:00:35](00:00:35)):

If I've positioned you correctly.

Danielle Royston ([00:00:36](00:00:36)):

Yeah, I'm the public cloud cheerleader.

Scott Bicheno ([00:00:38](00:00:38)):

Uh oh!

Iain Morris ([00:00:38](00:00:38)):

Oh!

Scott Bicheno ([00:00:39](00:00:39)):

There we go. Look at this! She's brought props.

Iain Morris ([00:00:41](00:00:41)):

(laughs)

Danielle Royston ([00:00:42](00:00:42)):

Right?

Scott Bicheno ([00:00:42](00:00:42)):

Rah, rah, rah.

Danielle Royston ([00:00:43](00:00:43)):

Right? I mean I...

Scott Bicheno ([00:00:43](00:00:43)):

Okay.

Danielle Royston ([00:00:43](00:00:43)):

I got that guy. I got... I got... You know.

Scott Bicheno (00:00:43):

(laughs) Look at this.

Iain Morris (00:00:43):

(laughs)

Danielle Royston (00:00:43):

You're number one.

Scott Bicheno (00:00:43):

(laughs)

Iain Morris (00:00:43):

(laughs)

Danielle Royston (00:00:48):

Right, we're number one. Go public cloud! Yes. (laughs)

Scott Bicheno (00:00:52):

Well excellent.

Iain Morris (00:00:54):

[crosstalk 00:00:54]] (laughs)

Scott Bicheno (00:00:54):

Well that is um... we could not ask any more of an evangelist.

Danielle Royston (00:00:57):

(laughs)

Iain Morris (00:00:57):

(laughs)

Scott Bicheno (00:00:58):

Except for some kind of pulpit.

Danielle Royston (00:01:00):

(laughs)

Iain Morris (00:01:00):

(laughs)

Scott Bicheno ([00:01:00](#)):

And a... and a bible.

Danielle Royston ([00:01:01](#)):

I- I- I- I- I skipped the outfit. It's a little bit chilly today in London.

Scott Bicheno ([00:01:04](#)):

Right. Well okay.

Iain Morris ([00:01:04](#)):

It is.

Danielle Royston ([00:01:04](#)):

So no cheerleader outfit for you.

Iain Morris ([00:01:06](#)):

(laughs)

Danielle Royston ([00:01:06](#)):

But I do have my props (laughs).

Scott Bicheno ([00:01:08](#)):

So you did have one? You just didn't put it on. (laughs)

Iain Morris ([00:01:11](#)):

(laughs)

Danielle Royston ([00:01:12](#)):

I just didn't bring it. I do... No, honestly. I mean... I play tennis. Um.

Scott Bicheno ([00:01:14](#)):

Yeah, so you got tennis.

Danielle Royston ([00:01:15](#)):

I've got tennis skirts.

Scott Bicheno ([00:01:16](#)):

Actually, that's a good point. Um.

Danielle Royston ([00:01:17](#)):

Yeah.

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Scott Bicheno (00:01:18):
I hear you were playing tennis yesterday.

Danielle Royston (00:01:19):
Um, I was playing tennis...

Scott Bicheno (00:01:20):
Who were you playing tennis with?

Danielle Royston (00:01:21):
I was playing with, uh, Ray Lemaitre.

Scott Bicheno (00:01:24):
No way!

Iain Morris (00:01:24):
Wow.

Danielle Royston (00:01:24):
Yeah. Yeah.

Scott Bicheno (00:01:25):
Is he any good?

Iain Morris (00:01:26):
He must've had to... [inaudible 00:01:26]

Danielle Royston (00:01:26):
He challenged me.

Scott Bicheno (00:01:28):
He challenged you?

Danielle Royston (00:01:28):
He challenged me.

Scott Bicheno (00:01:29):
That's quite a brave thing to do.

Danielle Royston (00:01:29):
He wanted to play a proper...

Iain Morris ([00:01:31](00:01:31)):

Proper match?

Danielle Royston ([00:01:31](00:01:31)):

Yeah!

Scott Bicheno ([00:01:32](00:01:32)):

All right.

Danielle Royston ([00:01:32](00:01:32)):

So we played two sets.

Iain Morris ([00:01:33](00:01:33)):

Against Ray?

Scott Bicheno ([00:01:34](00:01:34)):

What was the score?

Danielle Royston ([00:01:35](00:01:35)):

Um he's... he's you know all... he's pretty good. Um and...

Scott Bicheno ([00:01:38](00:01:38)):

[inaudible 00:01:38] is he?

Danielle Royston ([00:01:38](00:01:38)):

Yeah.

Scott Bicheno ([00:01:38](00:01:38)):

Oh you knew that, did you?

Danielle Royston ([00:01:39](00:01:39)):

He's pretty good.

Iain Morris ([00:01:40](00:01:40)):

I knew he played. [crosstalk 00:01:40]

Iain Morris ([00:01:40](00:01:40)):

He's good at table tennis.

Scott Bicheno ([00:01:43](00:01:43)):

I know he's good at table tennis.

Danielle Royston ([00:01:44](00:01:44)):

Yup. And um... [crosstalk 00:01:45] He has some... he has really good court sense.

Scott Bicheno ([00:01:47](00:01:47)):

Yeah yeah.

Danielle Royston ([00:01:47](00:01:47)):

And he's faster than you think he is. And he's...

Scott Bicheno ([00:01:50](00:01:50)):

And you didn't think an old git would be.

Danielle Royston ([00:01:52](00:01:52)):

Well I didn't say that. You did. But... (laughs)

Scott Bicheno ([00:01:53](00:01:53)):

(laughs)

Danielle Royston ([00:01:54](00:01:54)):

But just, you know, kind of, you know, typically as you get older, it's tough to more side to side or front and back. And I tested all of those sort of...

Scott Bicheno ([00:02:01](00:02:01)):

Right.

Iain Morris ([00:02:01](00:02:01)):

Right.

Danielle Royston ([00:02:01](00:02:01)):

Elements. And he did a good job. Yeah. Covering the court. He... yeah.

Scott Bicheno ([00:02:06](00:02:06)):

Wow. What was the score? Come on.

Danielle Royston ([00:02:08](00:02:08)):

Um, I won 6-2 : 6-1.

Scott Bicheno ([00:02:09](00:02:09)):

That all right. You got a few games in. I mean... you were pro, were you? Or semi-pro?

Danielle Royston ([00:02:14](00:02:14)):

I'm not a pro. I'm not a pro. I play...

Iain Morris (00:02:16):
You're... you're highly ranked at ITF level, weren't you?

Danielle Royston (00:02:17):
Yeah, I played... I played university tennis. And then took, like, you know, twenty years off.

Scott Bicheno (00:02:23):
Right. (laughs).

Danielle Royston (00:02:23):
Because Mom work.

Scott Bicheno (00:02:24):
That's a bit of a gap.

Iain Morris (00:02:24):
(laughs).

Danielle Royston (00:02:25):
Yeah. (laughs). And then decided to get back into it and sort of that competitive bug doesn't ever leave you. It's just part of your DNA. And so I was, like, "What does it take to get ranked in Texas and then in United States, and then the world?"

Iain Morris (00:02:37):
Right.

Scott Bicheno (00:02:37):
Wow.

Danielle Royston (00:02:38):
And so pre-COVID, um, I achieved my highest ranking of being 20th in the world.

Scott Bicheno (00:02:43):
Wow. Nice one.

Danielle Royston (00:02:44):
I mean, it's a little bit, you know, women that play tournaments that are 50 or older. Right. It's a little bit of a...

Iain Morris (00:02:51):

Yeah it's still pretty good. [crosstalk 00:02:52]

Danielle Royston ([00:02:52](#)):

Narrow... narrow... narrowing of the field there.

Iain Morris ([00:02:53](#)):

(laughs).

Danielle Royston ([00:02:55](#)):

(laughs) Yeah but just recently I was at...

Scott Bicheno ([00:02:59](#)):

Well, pretty sure I'd get nowhere near that at all. I'm not even 50 yet. Although, I am soon. Have you heard? Um, yeah, I don't wanna get anywhere near that.

Danielle Royston ([00:03:06](#)):

Um, no, but I was just in Croatia last month, uh, participating in the ITF World Team...

Iain Morris ([00:03:10](#)):

I see you tweets. Yeah.

Danielle Royston ([00:03:10](#)):

Um Tennis Tournament, which is the only tournament that I know of that you can't just apply and play in. You have to be selected by your country. So, um, so yeah. I was competing with the best in the world in a team event, and it was super fun. And so I think... I think Ray saw that and was like, "Okay."

Scott Bicheno ([00:03:26](#)):

I want some of that action.

Danielle Royston ([00:03:27](#)):

Yeah. So we had a really good time. It was... It was windy. It was rainy.

Scott Bicheno ([00:03:31](#)):

Was it just a laugh or did he make a sort of Telecom TV thing of it?

Danielle Royston ([00:03:34](#)):

He made a Telecom TV thing...

Scott Bicheno ([00:03:36](#)):

Is he going to publish, like, highlights?

Danielle Royston ([00:03:37](#)):

We did an interview on the courts.

Scott Bicheno (00:03:40):
(Laughs)

Danielle Royston (00:03:40):
[crosstalk 00:03:40] And um, you know, uh, we mixed it up with some tennis stuff and so I think they'll publish that shortly.

Scott Bicheno (00:03:45):
Excellent.

Iain Morris (00:03:45):
Oh, brilliant.

Danielle Royston (00:03:45):
But it was super fun! We had some champagne and Pimms.

Scott Bicheno (00:03:50):
Oh! Good stuff!

Danielle Royston (00:03:50):
It was really... I mean...

Scott Bicheno (00:03:52):
After a while Ray's starting to see that thunder. We're going to need to raise our game.

Danielle Royston (00:03:55):
Yes.

Scott Bicheno (00:03:57):
If even Ray's drinking on camera.

Iain Morris (00:03:59):
All right.

Danielle Royston (00:03:59):
He was not drinking on camera.

Scott Bicheno (00:04:01):
Oh. Well, you know [crosstalk 00:04:01].

Danielle Royston ([00:04:01](#)):

I mean... we had to... I mean I think he was really... I mean... thinking seriously about the tennis. I won't play.

Iain Morris ([00:04:07](#)):

Yeah.

Danielle Royston ([00:04:07](#)):

I cannot drink and then play. So.

Iain Morris ([00:04:09](#)):

No, no.

Danielle Royston ([00:04:09](#)):

So I wasn't drinking. I was like, "Well I mean... I have to beat him."

Scott Bicheno ([00:04:13](#)):

That might have been where I've gone wrong all these years.

Danielle Royston ([00:04:14](#)):

(laughs) Drink first, then play?

Scott Bicheno ([00:04:17](#)):

(laughs). For some reason, "Gosh, there's two balls."

Iain Morris ([00:04:18](#)):

Anyways.

Scott Bicheno ([00:04:21](#)):

I'll have to get you to play my son.

Iain Morris ([00:04:22](#)):

Yeah, have you heard about his son?

Danielle Royston ([00:04:23](#)):

Is he...

Scott Bicheno ([00:04:24](#)):

He's about seventh in the country. [inaudible 00:04:25]

Danielle Royston ([00:04:25](#)):

Oh, well, I'm sure he'll destroy me.

Scott Bicheno (00:04:28):
Well, I mean, he's good. He's trying to...

Danielle Royston (00:04:29):
How old is he?

Scott Bicheno (00:04:29):
He's seventeen.

Danielle Royston (00:04:29):
Oh yeah. Game over. There's no way.

Scott Bicheno (00:04:29):
But... but it'd still be kind of, you know...

Danielle Royston (00:04:33):
I guess. He's going to hit so hard. Is he tall? I mean...

Scott Bicheno (00:04:36):
He's... he's... he wasn't tall, but he's almost my height now.

Danielle Royston (00:04:40):
Yeah.

Scott Bicheno (00:04:40):
So he's sort of going up. It's uh...

Danielle Royston (00:04:42):
Yeah. I mean.

Iain Morris (00:04:42):
It helps.

Danielle Royston (00:04:42):
He's that good and male and tall.

Scott Bicheno (00:04:45):
Yeah, I can't play against him.

Danielle Royston (00:04:46):

I can't break his serve. It will be really...

Scott Bicheno ([00:04:48](00:04:48)):
Yeah he's... he's... yeah.

Danielle Royston ([00:04:48](00:04:48)):
I mean... I'm tiny. 5'4"? I don't know what that is in the metric system but...

Scott Bicheno ([00:04:53](00:04:53)):
We use... we use feet and inches.

Danielle Royston ([00:04:54](00:04:54)):
Oh, sweet. But the world.

Scott Bicheno ([00:04:56](00:04:56)):
Yeah. But you're almost a foot shorter than I am.

Danielle Royston ([00:04:56](00:04:56)):
Yeah. (laughs).

Iain Morris ([00:04:56](00:04:56)):
(laughs).

Scott Bicheno ([00:04:56](00:04:56)):
I'm 6'3".

Danielle Royston ([00:04:59](00:04:59)):
(laughs). Yeah. My husband's 6'3". Right? We look ridiculous in...

Scott Bicheno ([00:05:02](00:05:02)):
Okay. Okay. So you're used to...

Danielle Royston ([00:05:03](00:05:03)):
In, in photographs. [crosstalk 00:05:04] But I... I actually brought you guys gifts.

Scott Bicheno ([00:05:06](00:05:06)):
Aw.

Iain Morris ([00:05:07](00:05:07)):
Aw.

Scott Bicheno ([00:05:07](00:05:07)):

Bro of the week.

Iain Morris (00:05:08):

(laughs)

Danielle Royston (00:05:09):

Right? Right? It is a little bit, I gotta, I gotta, I gotta do this. So first of all, I brought you a Yeti. It was your birthday, I think.

Scott Bicheno (00:05:15):

Oh is that for me?

Scott Bicheno (00:05:17):

[crosstalk 00:05:17]

Scott Bicheno (00:05:17):

I was asking Declan about it. He was being all shifty. I was wondering why.

Danielle Royston (00:05:20):

So Yeti... So in...

Iain Morris (00:05:22):

Those are amazing.

Scott Bicheno (00:05:23):

Cool.

Danielle Royston (00:05:24):

So in um... so in Japanese business...

Scott Bicheno (00:05:26):

This has been a very profitable birthday, so far.

Danielle Royston (00:05:28):

In Japanese business, you're supposed to bring gifts from your hometown.

Scott Bicheno (00:05:32):

Right.

Danielle Royston (00:05:32):

Right, not necessarily like fancy gifts. But that you were thoughtful. And so Yeti is actually from Austin.

Scott Bicheno ([00:05:37](00:05:37)):

Right. Cool.

Danielle Royston ([00:05:38](00:05:38)):

Right? And so... they're known for their tumblers and their coolers, mostly for hunters, right? To go out into the whatever and shoot things. Very Texan of me.

Scott Bicheno ([00:05:47](00:05:47)):

And then they get pissed after.

Danielle Royston ([00:05:49](00:05:49)):

But maybe like a uh... uh thing.

Iain Morris ([00:05:51](00:05:51)):

You know who's a big advocate of Yeti, yeah?

Scott Bicheno ([00:05:53](00:05:53)):

Rogan.

Iain Morris ([00:05:53](00:05:53)):

Yeah (laughs).

Scott Bicheno ([00:05:54](00:05:54)):

Yeah right (laughs).

Danielle Royston ([00:05:54](00:05:54)):

Are you a fan of the [inaudible 00:05:54]?

Scott Bicheno ([00:05:54](00:05:54)):

We're both big, me and Pierre, both big Rogan fans.

Danielle Royston ([00:05:57](00:05:57)):

So the other thing I did, is I brought you guys some beers. I... I realized we had like a shit-ton of beers here.

Iain Morris ([00:06:01](00:06:01)):

So these are cold?

Scott Bicheno ([00:06:02](00:06:02)):

Well that's all right, man.

Danielle Royston ([00:06:02](00:06:02)):

They're cold.

Scott Bicheno ([00:06:03](#)):

They're cold. Oh look you even got bits ice going on here.

Danielle Royston ([00:06:05](#)):

I do.

Iain Morris ([00:06:05](#)):

This is pro.

Danielle Royston ([00:06:06](#)):

So the first beer I brought you guys is made by a pizza house in Austin called "Electric Jelly Fish."

Scott Bicheno ([00:06:12](#)):

Did you bring... [crosstalk 00:06:12]

Iain Morris ([00:06:12](#)):

Did you bring...

Scott Bicheno ([00:06:14](#)):

Did you bring this over from the States with you?

Danielle Royston ([00:06:14](#)):

I did.

Scott Bicheno ([00:06:14](#)):

Aw.

Danielle Royston ([00:06:14](#)):

I lugged it personally.

Scott Bicheno ([00:06:15](#)):

Aw. You are so thoughtful. That is very...

Danielle Royston ([00:06:16](#)):

So I brought three.

Iain Morris ([00:06:18](#)):

That is very, very kind.

Scott Bicheno ([00:06:19](#)):

Now I feel bad being a dick about a public cloud. (laughs).

Iain Morris ([00:06:21](underline)):
(laughs).

Danielle Royston ([00:06:21](underline)):
(laughs). Yeah, exactly. Exactly. The second beer I brought you...

Iain Morris ([00:06:24](underline)):
Killing you with kindness.

Danielle Royston ([00:06:26](underline)):
The second beer I brought you is called "Hell Yes." And so I hope...

Scott Bicheno ([00:06:29](underline)):
Hell yeah.

Iain Morris ([00:06:30](underline)):
(laughs).

Danielle Royston ([00:06:30](underline)):
By the end of the pod, you guys are saying, "Hell yes," to the public cloud.

Scott Bicheno ([00:06:33](underline)):
Right. I see. Well, we'll see.

Iain Morris ([00:06:34](underline)):
Okay. Okay.

Danielle Royston ([00:06:34](underline)):
So that's a good... I should've researched exactly what kind of beers... And then I brought... I- I- I did bring some...

Scott Bicheno ([00:06:39](underline)):
You don't need to research. As long as it's got beer written on it.

Danielle Royston ([00:06:39](underline)):
It's a gluten-free beer, because I didn't know.

Scott Bicheno ([00:06:43](underline)):
Okay, and when Pierre sorted you out with one or two...

Danielle Royston ([00:06:45](#)):

And so this one is called "Sun Eater." I'll rename it "Cloud Eater."

Scott Bicheno ([00:06:49](#)):

Oh.

Danielle Royston ([00:06:49](#)):

Sorry, there's ice right here.

Scott Bicheno ([00:06:51](#)):

That's all right. Don't worry.

Iain Morris ([00:06:51](#)):

That's okay.

Danielle Royston ([00:06:51](#)):

But yeah. Sorry. There you go.

Iain Morris ([00:06:52](#)):

That's how good the, uh, the Yetis are. See. [crosstalk 00:06:54]

Iain Morris ([00:06:54](#)):

Emily says...

Danielle Royston ([00:06:55](#)):

Well I didn't bring it with the ice. I put the ice in the morning.

Scott Bicheno ([00:06:57](#)):

Oh that's brilliant, Danielle.

Danielle Royston ([00:06:58](#)):

There you go. This is a present for you.

Scott Bicheno ([00:07:00](#)):

That's incredibly kind of you. Thank you very much.

Danielle Royston ([00:07:01](#)):

All the way from Austin, Texas.

Iain Morris ([00:07:02](#)):

Wow. Thank you for the beers.

Scott Bicheno (00:07:04):

Right well, I reckon we'll have that on the pod every week. We'll get the beers out of the fridge and just keep it in there. [crosstalk 00:07:08]

Danielle Royston (00:07:08):

Yes. Right? Someone can be responsible for putting the...

Scott Bicheno (00:07:11):

That means that we can have like... [crosstalk 00:07:13]

Scott Bicheno (00:07:14):

Sponsored by Yeti.

Danielle Royston (00:07:16):

(laughs).

Scott Bicheno (00:07:16):

That means we can have like three-hour Rogan podcast...

Iain Morris (00:07:18):

(laughs). Yeah.

Scott Bicheno (00:07:18):

Without running out of cold beer.

Iain Morris (00:07:19):

Yeah.

Danielle Royston (00:07:20):

Yeah. So if you need uh- a- yeah. Or just whatever. So...

Iain Morris (00:07:23):

Well that's brilliant.

Danielle Royston (00:07:23):

It can hold... It can hold...

Scott Bicheno (00:07:24):

Very cool.

Danielle Royston (00:07:24):

I think it's advertised to hold six, but I have eight in there.

Scott Bicheno ([00:07:28](00:07:28)):

Yeah, yeah. No that's...

Danielle Royston ([00:07:28](00:07:28)):

Electric Jellyfish, no, highly, everyone raves about this guy.

Scott Bicheno ([00:07:32](00:07:32)):

Yeah, that's 6.5%, I might have to, I mean that's a big tin of 6.5%, it could, I might have to wait until the second half of the pod for that.

Danielle Royston ([00:07:41](00:07:41)):

And then this is from the Austin, that's at, uh Pinthouse Pizza, they have like, a little microbrewery. And then this is from Austin Beer garden.

Scott Bicheno ([00:07:48](00:07:48)):

Uh-huh.

Danielle Royston ([00:07:49](00:07:49)):

So there you go.

Scott Bicheno ([00:07:51](00:07:51)):

What's that, is that a bit more manageable? What's, what's the damage on that one, Peter?

Iain Morris ([00:07:53](00:07:53)):

Uh, what does it say? 4.5. Have one right now.

Danielle Royston ([00:07:56](00:07:56)):

(Laughs)

Scott Bicheno ([00:07:56](00:07:56)):

Go for it.

Danielle Royston ([00:07:59](00:07:59)):

Give it a taste.

Scott Bicheno ([00:08:00](00:08:00)):

Brilliant. Brilliant.

Danielle Royston ([00:08:00](00:08:00)):

So there you go. That'll warm you up, it'll warm you up before we talk about the cloud. (Laughs)

Scott Bicheno ([00:08:05](#)):

Um, um that's very cool. Okay. I think we spoke quite a lot of shit, better crack on with it.

Scott Bicheno ([00:08:12](#)):

Um, what we're going to speak about is obviously, um, Public Cloud is Danielle's thing, and has very sort of overt opinions as to the pros and cons of it. And so we finally get a chance to thrash that out in person.

Scott Bicheno ([00:08:24](#)):

So we're going to talk about that. And, and find out a bit more about what you do.

Danielle Royston ([00:08:27](#)):

Yeah.

Scott Bicheno ([00:08:28](#)):

Um, and things like mobile congress.

Danielle Royston ([00:08:31](#)):

Yeah.

Scott Bicheno ([00:08:31](#)):

Which, as you pointed out, we jokingly called Danielle Royston congress.

Danielle Royston ([00:08:34](#)):

The DRC. Yeah. I love that. That was like, actually, the goal. And I think I succeeded.

Scott Bicheno ([00:08:40](#)):

That's branding win.

Danielle Royston ([00:08:41](#)):

Yes.

Scott Bicheno ([00:08:42](#)):

Um, and then, we'll, we'll just take that as far as it takes us, but we have got a couple of other things we might um, chat about in terms of the week's news. Um, we had, we finally had the conclusion of the, of the [inaudible 00:08:54]

Scott Bicheno ([00:08:53](#)):

Wanzhou, she's been, she's sort of been in limbo for a couple of years while the U.S. tried to extradite her. And in the end they just gave up, and went, "Fuck it, go on then. Back to China with you." So off she went.

Danielle Royston (00:09:10):

Or leadership changed, in the country, but yeah.

Scott Bicheno (00:09:13):

Could be. Could be. Yeah, presumedly was Trump's bright idea in the first place.

Iain Morris (00:09:17):

Yeah.

Scott Bicheno (00:09:17):

Um, so uh-

Danielle Royston (00:09:21):

Not to get political.

Iain Morris (00:09:23):

It was just down the pile in Biden's to-do list.

Danielle Royston (00:09:25):

It was like, deal with me. (Laughs)

Scott Bicheno (00:09:33):

Um, and, you know, I don't, I don't [inaudible 00:09:33] the legalities of it, because I don't think it came down to [inaudible 00:09:37], I think it came down to politics and international diplomacy, and it's the international diplomacy side of it that interests me. And there are one or two other things that have happened in the last week or so, that, that, well, point to what I hope it a sort of positive shift in terms of international diplomacy, but we'll see.

Scott Bicheno (00:09:50):

And then the only other thing that I fancy chatting about is, sort of big tech, or big internet companies getting more into consumer devices. Uh, in the form of Facebook and the metaverse, um, and, um, Amazon [inaudible 00:10:07] uh, Amazon, uh, the sort of, I guess the, you'd call it the retail side, the e-tail side, getting into robots and sort of domestic IT and that sort of thing. And I've got some thoughts on how desirable that is. You can imagine along the lines of my usual dystopian paranoia.

Scott Bicheno (00:10:26):

So um, so that's that, and just to remind you that if you're watching it on the site or on YouTube or um, Facebook, you can also listen to it on iTunes, SoundCloud, Spotify, and loads of other Podcasting platforms.

Scott Bicheno (00:10:37):

Cool. Right, I better get this star sorted so I can get onto that bad boy. Um, so Danielle, so here we are. Why don't we start by, so you were, you were, a few years ago, you were CEO of Optima, is that right?

Danielle Royston (00:10:55):
Yeah, formally Redknee, I think a lot of people know it as Redknee, but yeah.

Scott Bicheno (00:10:57):
And then, and then when that finished, you just, you started up, what's your company called now?

Danielle Royston (00:11:03):
Well I have two that I'm kind of involved with. So I got Telco Dr, which is my Twitter handle.

Scott Bicheno (00:11:08):
Yeah.

Danielle Royston (00:11:08):
Please follow me.

Scott Bicheno (00:11:09):
(Laughs)

Danielle Royston (00:11:10):
And um, the other one is Totogi, which is the software.

Scott Bicheno (00:11:13):
Before we forget, you should plug your own Podcast as well.

Danielle Royston (00:11:16):
Yeah, yeah, the Telco and Twenty Podcast.

Scott Bicheno (00:11:18):
So, and...

Danielle Royston (00:11:18):
It's the other Telco podcast. (Laughs)

Scott Bicheno (00:11:20):
The other Telco Podcast.

Scott Bicheno (00:11:22):
And, and you're actually planning to get some of this and sort of whack it into your podcast, so...

Danielle Royston (00:11:27):

Yeah, we're gonna, it's gonna be a dual drop, I think that's right.

Scott Bicheno (00:11:30):

Is that the technical term?

Danielle Royston (00:11:32):

I don't know if that's a technical term, I just coined it.

Scott Bicheno (00:11:32):

Maybe it's an American thing.

Danielle Royston (00:11:33):

We're gonna drop them at the same time on Monday.

Scott Bicheno (00:11:36):

It's like a drug dealing term.

Danielle Royston (00:11:37):

(Laughs)

Iain Morris (00:11:37):

(Laughs)

Danielle Royston (00:11:37):

It sound like a Beyonce... yeah it's like, a Beyonce and Kanye like, double-drop.

Scott Bicheno (00:11:42):

I've just been watching The Wire, so I'm, I'm really up on the parlance.

Danielle Royston (00:11:44):

You're into the, you know, sort of drug dealing lingo.

Scott Bicheno (00:11:48):

Just the lingo. I don't actually deal. Thank you, my boss is a former.

Scott Bicheno (00:11:53):

Okay so Telco Dr, so you got that pod, and you talk about Telecom stuff.

Danielle Royston (00:11:59):

I talk on my podcast I focus on how Telco is going to move to the public cloud. IT's called Telco and Twenty because I think it's going to take 20-ish years, it's going to take a long time.

Scott Bicheno ([00:12:08](#)):

Okay so don't start panicking yet.

Danielle Royston ([00:12:10](#)):

And then the podcast is usually about 20-minute episodes, right. Really geared towards Telco executives, so.

Scott Bicheno ([00:12:15](#)):

Okay, cool. And you said you've got another business. Or is that-

Danielle Royston ([00:12:20](#)):

Totogi.

Scott Bicheno ([00:12:20](#)):

Remind us, what's, remind us, I don't think I was aware of that one.

Danielle Royston ([00:12:22](#)):

Yeah, Totogi is a software business. And it's building all the software you need if you're a Telco that's hellbent on going to the public cloud. You need tools that really know how to use the public cloud the right way. And so we've launched a charger. Because that's like the heart of monetization. And we've launched a BSS. And so, that's not all of it, it's going to be a lot more. We think you're like, I mean let's take like, dish for example, who's kind of gone really all-in on the

Scott Bicheno ([00:12:49](#)):

All in.

Danielle Royston ([00:12:49](#)):

I think the most that we

Danielle Royston ([00:12:54](#)):

[crosstalk 00:12:54]

Danielle Royston ([00:12:57](#)):

Yeah, and Totogi's, yeah, there's reasons for that, but you know, if you're a dish and you go shopping for software, right, and the things that you need for that, let us just say that that's your strategy. You need, you have a shopping list. And so Totogi's gonna build all that software for you, and for those people that are all-in on the public cloud, and don't have the trepidations of it, right, get over it...

Iain Morris ([00:13:20](#)):

So charging would be the sort of stuff that you might associate with OpenNet or charging software [crosstalk 00:13:28]

Danielle Royston (00:13:27):

I mean, my previous employer Optiva, was a charging company. And so, I love charging. Some people thought it was a dead commodity. I think it's the most exciting thing out there.

Scott Bicheno (00:13:38):

That's charging as in billing, as opposed to charging up your phone.

Danielle Royston (00:13:41):

Well now remember nights and weekends? If you're as old as me? Like uh, minutes, you're supposed to call on nights and weekends, because it was cheaper. That's rating. AKA

Danielle Royston (00:13:52):

[crosstalk 00:13:52]

Scott Bicheno (00:13:57):

Well, I always just group that in BSS.

Scott Bicheno (00:13:57):

[crosstalk 00:13:57]

Danielle Royston (00:13:57):

Well it's kind of like a little, it's like, it's like the one thing that kind of spans OSS, right? It's just sort of like, sometimes an organization's network owns it, and sometimes an organization's IT owns it, but it... it really spans, because it sits on the network to like, figure out, you know, quota, and do you have enough, um, credits to, to get it to go through.

Scott Bicheno (00:14:16):

And the Totogi thing, I mean, you make quite a big investment in that, didn't you? I think

Danielle Royston (00:14:21):

$100 million dollars, yeah.

Iain Morris (00:14:23):

Well, good for you, man.

Danielle Royston (00:14:23):

Now I can afford to bring you beers.

Scott Bicheno (00:14:28):

There's also other, others in mind, other kind of companies in mind?

Danielle Royston ([00:14:31](00:14:31)):

Yeah so, I mean your question was, you know, who am I and what am I doing? And so, you know, I have this huge vision. I, you know, it's kind of why I'm here, I think that it's a mega-trend, it's coming to Telco, you can't really stop it, you've gotta think about, as a Telco executive, as a Telco company, you've gotta decide what you're gonna do about it, right. Um, are you gonna avoid it, are you gonna use it, how much are you gonna use it? And so, I think number one, with an idea like that, there needs to be an evangelist in the industry. And no one really is the public cloud cheerleader. So I was like, there was a gap, and I was like, that's gonna be me.

Scott Bicheno ([00:15:05](00:15:05)):

A cheeky question, if it's so inevitable, why does it need to be evangelized at all?

Danielle Royston ([00:15:08](00:15:08)):

Well, I think, I think there's a lot of confusion about it. And so, I mean, a couple of years ago, everyone told me I was wrong, it would never happen.

Scott Bicheno ([00:15:17](00:15:17)):

Right.

Danielle Royston ([00:15:17](00:15:17)):

And now here we are, seeing people using it in different ways.

Scott Bicheno ([00:15:20](00:15:20)):

It seems every month we're writing another article on how another operator has gone all in.

Danielle Royston ([00:15:23](00:15:23)):

Yeah, I mean maybe at some point I will have to stop. But I think there's still a lot of, there's, I'll be happy.

Scott Bicheno ([00:15:29](00:15:29)):

Maybe in 20 years.

Danielle Royston ([00:15:30](00:15:30)):

Maybe. I hope it doesn't take that long.

Iain Morris ([00:15:32](00:15:32)):

But it is very early days, isn't it? I mean, I mean,

Scott Bicheno ([00:15:34](00:15:34)):

You say it's early days, but we keep hearing about all this-

Iain Morris ([00:15:37](#)):

There's not a lot of public, there's not a lot of Telecom in the public cloud. I mean, we, we, raise the concerns I think because we see it going that way, and you see operators doing these all in one deals, and, and you see the structure of the market, but there's very, very little Telecom at the moment in the public cloud. I mean, I would, it's probably gone more slowly than other industries, hasn't it?

Danielle Royston ([00:15:54](#)):

Yeah, I mean, I think, correct. And I think it's gonna take a long time. And so, if you look continent by continent, like, South America really, I mean, there's been some partnerships, but not like, North America, and western Europe. Right? We haven't heard anything really about Africa, for example.

Scott Bicheno ([00:16:11](#)):

Mm-hmm (affirmative).

Danielle Royston ([00:16:12](#)):

Hyperscale, there's not a lot of hyperscale activity on that continent. Right?

Scott Bicheno ([00:16:17](#)):

Yep.

Danielle Royston ([00:16:17](#)):

Middle East, right, a little bit of strategic agreements, but not a lot of movement. And so, it is early days.

Iain Morris ([00:16:22](#)):

But even in North America it's only really, I mean I did dish's announced this big deal but it's, it's an innovator anyway. It's a greenfield network. And then the only other one really is AT&T, with its plans to move the whole 5G operation, and the others haven't really, as far as I'm aware-

Danielle Royston ([00:16:36](#)):

No, I think Verizon has done a lot, but they're kind of, they're using like AWS for edge stuff with wavelength, they're using GCP for some AI stuff, and so they're kind of splitting their, their bets a little bit. And so um, I think T-Mobile does stuff as well, but it's, it's obviously a little bit easier in North America, because the hyperscalers are from the United States, and so that's a little bit easy. But like, I think in Europe it's starting to pick up steam, and Asia, I think there's KDDI just signed a deal with um, well I don't know if it's just, but with AWS wavelength. So I think the experimentation is-

Iain Morris ([00:17:08](#)):

Yeah, and we'll see more bits and bobs, it's a bit more piecemeal over here in Europe. I mean, I suppose, it's a bit, it's gonna be easier for a greenfield operator like dish to go all-in. And just go, "fuck it," from the start.

Scott Bicheno ([00:17:19](#)):

I think, I think they're turning up in a lot of deals, like you see a lot of, like, you know Scott and I write every week almost it seems, as you just said, about AWS doing an edge deal with Vodaphone or something, but there's a difference between that and actually having, you know, putting all of your workloads into the cloud, which is sort of what you're talking about, isn't it, and moving that, and embracing it completely.

Danielle Royston (00:17:38):

Yeah, I mean, I definitely talk about the edge, and I think a lot of people focus on the network obviously, because that's where the cap expense is, but I talk about IT side. Right? I talk about all those workloads. And so I think there's thousands of applications, not even like the super critical ones, right, that I think you should just like, move them over to the public cloud.

Scott Bicheno (00:17:58):

And what would be the argument for doing it? Because there's various views on this, I know, and there's, there's one, I mean, I guess when this came along originally, the idea of sort of running things from the cloud, as I understand it, it was Silicon Valley small Silicon Valley companies that wouldn't necessarily want to go and spend money on their own servers

Scott Bicheno (00:18:18):

[crosstalk 00:18:18]

Scott Bicheno (00:18:19):

Yeah, and therefore to sort of do it through the cloud was a cost-effective way of doing it, but one criticism would be as you get bigger, and you know it's like when you sell out your own taxi company and it gets big enough, you don't want hire cars, you actually want to buy your own fleet.

Danielle Royston (00:18:31):

Right.

Scott Bicheno (00:18:31):

So um, I mean, does that apply, when you're really big operator and you're scaling up, are you still seeing benefits in terms of costs and other things from making this move?

Danielle Royston (00:18:41):

I do. I, I think the cost benefits is an easy, obvious thing. But I think the other side that people tend to forget about is the, the amount of organizational energy a company has. Right? Which is the sum of your people times the hours in a day, times the weeks in a year. And what percentage of that group is focused on mundane tasks like updating servers and keeping them you know secure, and you know, sort of dealing with all that. And could you reallocate that into um, people focused on driving better experiences for your customers. Right? And so, how much of that energy do you want to do?

Danielle Royston (00:19:23):

And I saw a really good Twitter thread around this. Um, that, basically you get the opportunity to... one of the hardest things to build and find are great people. And so, when AWS or GCP or Azure is letting you get access to talent, and then you pay by the minute. Right? And it is talent at the end of the day, managing the servers and managing all those workloads for you. That's such a rare thing to have that opportunity. Take it when it presents itself. And then reallocate your organizational energy to be focusing on what matters which is your own business.

Scott Bicheno ([00:19:58](#)):

So that point one in favor of public cloud is efficiency.

PART 1 OF 4 ENDS [00:20:04]

Scott Bicheno ([00:20:02](#)):

... in favor of public cloud is efficiency. You'll- you'll find I'll concede of them.

Danielle Royston ([00:20:05](#)):

Mm-hmm (affirmative).

Scott Bicheno ([00:20:06](#)):

The- because the- the point in favor and the point against are not mutually excessive.

Danielle Royston ([00:20:10](#)):

Yeah.

Scott Bicheno ([00:20:10](#)):

Um, so point one in favor is efficiency, and I totally get that. And it's not just smaller companies, um, it's not just lowering the barrier to entry to certain sectors for smaller companies. It's also larger legacy companies creating efficiencies by getting rid of, uh, existing data centers and just go, fuck it, let's get Amazon to do it. Or whatever. Um...

Scott Bicheno ([00:20:31](#)):

Yeah. Yeah, you're just not buying, you know, it's not good news for Hewlett-Packard is it, really? Because they're already selling [crosstalk 00:20:37]

Scott Bicheno ([00:20:38](#)):

No. Or Dell, or Intel. [crosstalk 00:20:39]

Danielle Royston ([00:20:39](#)):

[crosstalk 00:20:39] or- or Intel. You know, I mean-

Scott Bicheno ([00:20:39](#)):

Perhaps- perhaps-

Danielle Royston (00:20:39):

... but- but you go look at the earnings clause of, like, those guys in Intel and AMD, about the cloud...

Scott Bicheno (00:20:45):

Yeah, they're just flogging it to...

Danielle Royston (00:20:46):

Well, they want to-

Scott Bicheno (00:20:47):

[inaudible 00:20:47]

Danielle Royston (00:20:47):

... be able... They want to sell their, yeah, exactly, their chips to those guys.

Scott Bicheno (00:20:51):

Yeah.

Danielle Royston (00:20:51):

Right? That's, I mean...

Scott Bicheno (00:20:52):

But you- you wonder, presumably with great efficiency come- becomes- comes less duplication and redundancy. So, presumably, while they could sell to, like, a football field sized data center, uh, hyperscaler, that might theoretically, I'm just, just, um...

Danielle Royston (00:21:07):

Yeah.

Scott Bicheno (00:21:07):

I'm thinking out loud here, that might theoretically be less than selling to 100 different people who were having to do their own thing. But either way, I mean, I also take your point about the inevitability of it.

Scott Bicheno (00:21:18):

You know, um, I think Apple and you- you were just showing your lovely shiny new-

Danielle Royston (00:21:21):

I know, yeah.

Scott Bicheno (00:21:22):

... iPhone 13.

Danielle Royston (00:21:22):

My new 13 Max.

Scott Bicheno (00:21:24):

I mean, I remember covering, when I was more consumer tech focused, I remember covering them when they, um... when they were coming out with products that were cannibalizing their own successful products that they came a... Pretend if it's the iPhone or- or- or maybe it was the, um, the i- the iPhone without a modem. What'd they used to call that, the iPod Deluxe? Or something like that.

Danielle Royston (00:21:44):

Yeah, yeah.

Scott Bicheno (00:21:44):

Um, and it was cannibalizing other stuff they had. But, you know, the- they'd always talk about people like, sort of, Kodak and Polaroid and people who didn't. People who held onto their legacy shit for too long.

Danielle Royston (00:21:55):

Yeah.

Scott Bicheno (00:21:55):

Until it was too late, and then other people had stepped in when they coulda got there. So, yeah, in terms of inevitability I get all that as well, but before I- before I, sort of, get into the pushback side of it. So, point one efficiencies.

Scott Bicheno (00:22:07):

What about the... what about the extra wins? That you get on top of efficiency from being at Telco and the public cloud, why don't you tell us a bit more about that?

Danielle Royston (00:22:15):

Yeah. I mean, I think a lot of people see the public cloud as outs- data s- data center outsourcing. Right? And Jamie Dimon, CEO of JPMorgan Chase, has quotes out there where he was like, "It's outsourcing. Why would I outsource this when I have it- I have it in-house."

Danielle Royston (00:22:34):

And over the course of probably like six or seven year, he starts to realize that there's, um, technical capabilities, software, that the public cloud vendors provide. That he can't buy, and put in his own data center.

Danielle Royston (00:22:48):

And that, um, software, is available as almost Lego pieces that you can assemble together, and reduce the amount of code that his developers have to write. Right? You can assemble these Lego pieces into new application and new offerings in minutes. Right?

Scott Bicheno ([00:23:03](#)):

Yeah.

Danielle Royston ([00:23:03](#)):

In- in hours. Which previously, used to take months. Or maybe years. And so, um, the speed of business, right, feature velocity, right? He could add it to old legacy systems without having to go through an upgrade.

Danielle Royston ([00:23:16](#)):

He could put out new ideas and experiment em- with them, in smaller batches, and see if that idea works. And he's, like, "Ah-ha, I get it."

Scott Bicheno ([00:23:25](#)):

Isn't- isn't some of that and argument in favor of the cloud and virtualization and softwarization in general?

Danielle Royston ([00:23:32](#)):

I mean, yeah, but I think, I mean, these are tools that these guys have been using in their own businesses. Like, either Google in search, or Amazon in retail. That they've not commercialized and made available for anyone to leverage, right?

Scott Bicheno ([00:23:44](#)):

Yeah.

Danielle Royston ([00:23:44](#)):

And they're sharing their innovation with the world, and-

Scott Bicheno ([00:23:46](#)):

So you'd have to reinvent the wheel, it's all that.

Danielle Royston ([00:23:48](#)):

Right, you're like, hey, I need to do some crazy AI or machine learning on a big huge set of data, instead of having to figure out all this stuff out, or like, use a new kind of database that scales automatically. I can just use it. And so, I think that's the piece that people miss about the... I think even still in Telco, people miss that. Right? They- they kind of focus on the efficiencies of the cost, where I don't have to have my own team-

Scott Bicheno ([00:24:11](#)):

Yup.

Danielle Royston ([00:24:11](#)):

... or I can shut down data center. But once they star building with these Lego pieces, and we're gonna do it in a week. I'm participating in TM Forum's Digital Transformation World Series.

Danielle Royston (00:24:21):

We're gonna create a new, um, feature in- in- in the application in 20 minutes. And code it live.

Scott Bicheno (00:24:30):

Well-

Danielle Royston (00:24:30):

And- and people are gonna be like-

Scott Bicheno (00:24:30):

... are there other people, just out of interest that you- you know, 'cause we talked about the- the job side of it before. Um, that would just be at a Telco involved in looking after... It's not just about cutting out on the equipment that you're spending.

Scott Bicheno (00:24:40):

Because then you gotta rinse it through, um, AWS. But, you- you've got big teams involved in just looking after all this stuff.

Danielle Royston (00:24:47):

Well yeah, I mean, there's new skills that you have to have that I don't think Telco really has a lot of.

Scott Bicheno (00:24:52):

Yeah

Danielle Royston (00:24:52):

And it's the hottest, um, tech skill out there. You're competing against big names like Google, AWS, and Azure to attract it to a Telco. The compensation plans of a Telco, versus AWS where they're giving out stock any equity.

Scott Bicheno (00:25:05):

Yeah.

Danielle Royston (00:25:06):

I mean, that's gonna be really hard to build those teams. But, um, but yeah, I think that when people get those skills, um, their value in the market goes up, 20 to 30 percent. I think the types of skills no longer are just pure technology, but technologists need to understand, um, the financial impact of a decision of, you know, how are we gonna, you know... AWS will offer different licensing packag- packages. So p- you could then license it for, it's a reserved instance and you hold on to it for a period of time, or sometimes it's not and you c- you know, you're willing for that machine to go away. And take a little bit of risk. It's cheaper.

Scott Bicheno ([00:25:41](#)):

Yup.

Danielle Royston ([00:25:42](#)):

Right? And so, kinda thinking about, when do I wanna reserved instance that's more expensive, 'cause this is a workload that can't ever go down.

Danielle Royston ([00:25:48](#)):

Whereas, this is a financial system that's not really work- used on the weekends or nights, and it's a little bit cheaper, and so... And so that combination of technical prowess, and understanding how to value the technology, with the financial implications of those decisions, is a whole new skill that we haven't begun to talk about. Right?

Scott Bicheno ([00:26:06](#)):

Yeah.

Danielle Royston ([00:26:06](#)):

So, you know, a great examples is just tod- uh, yesterday saw eight of us announced Graviton2 is available on Lambda workloads. Lambda is serverless. Right?

Danielle Royston ([00:26:16](#)):

and so this is not Kubernetes, right? But this kind of another type of application. And so you get 34% price improvement if you move your workloads off of Intel chips, onto Amazon's proprietary, custom Graviton2 chips. And so, you're priced by-

Scott Bicheno ([00:26:32](#)):

K- I don't think I even realized they had their own chips.

Danielle Royston ([00:26:34](#)):

Yeah.

Scott Bicheno ([00:26:34](#)):

Did you realize that?

Scott Bicheno ([00:26:35](#)):

Yeah, 'cause we talked about it before. Those are the ones that DISH-

Scott Bicheno ([00:26:37](#)):

The ARM-

Scott Bicheno ([00:26:37](#)):

... want to use. In its-

Scott Bicheno ([00:26:38](00:26:38)):

... the ARM chips.

Scott Bicheno ([00:26:38](00:26:38)):

... uh-

Scott Bicheno ([00:26:38](00:26:38)):

Does it?

Scott Bicheno ([00:26:38](00:26:38)):

... those ARM-based chips that sh- DISH wants to use in its open RAN [crosstalk 00:26:41] all that.

Scott Bicheno ([00:26:42](00:26:42)):

Okay, no, well, I forget- I forget stuff that I- I knew a couple of weeks ago.

Scott Bicheno ([00:26:46](00:26:46)):

H- h- how long-

Scott Bicheno ([00:26:46](00:26:46)):

What's your name again?

Scott Bicheno ([00:26:46](00:26:46)):

(laughs)

Scott Bicheno ([00:26:47](00:26:47)):

[inaudible 00:26:47] what were you gonna say?

Danielle Royston ([00:26:47](00:26:47)):

(laughs)

Scott Bicheno ([00:26:47](00:26:47)):

How old, I wonder, yeah.

Scott Bicheno ([00:26:48](00:26:48)):

(laughs) Yeah. How old-

Scott Bicheno ([00:26:49](00:26:49)):

So, I mean-

Scott Bicheno ([00:26:49](00:26:49)):

... how old are you gonna be, Scott?

Scott Bicheno ([00:26:51](00:26:51)):

I think- I mean, if I... I'd- I- get the benefits and everything. If I was gonna- if I was donna start raising objections and I read about this a lot, I'd say that other... The thing that strikes me that's odd about the- the way Telecom is approaching this at the moment, perhaps, is, there seems to be this preoccupation with, um, diversifying that market in lots of different areas, and-

Scott Bicheno ([00:27:10](00:27:10)):

Mm-hmm (affirmative).

Scott Bicheno ([00:27:10](00:27:10)):

... you know, they're- they're very, very concerned about being overly reliant, for instance, on companies like Eriksson, Huawei, and- and Nokia. Uh, and you e- you even see that in some, you know, they, some of t- the bits of the equipment market.

Scott Bicheno ([00:27:21](00:27:21)):

And the- and the irony is that they're, I mean, maybe they're not- there's not much of a concern because they haven't really gone into the public cloud at the moment.

Danielle Royston ([00:27:28](00:27:28)):

Yeah.

Scott Bicheno ([00:27:28](00:27:28)):

But, it seems to me that they should be thinking, well, uh, do we replace that type of- of lock-in, if you like, with a different type of lock-in where we do a deal with AWS, and we've put all of our systems in the- in the- in- in it- into it, you know, into its public cloud.

Scott Bicheno ([00:27:45](00:27:45)):

And there aren't really that many alternatives. And from talking to people, it sounds like switching between AWS and, um, Microsoft, might be even harder than- that it is to kind of swap out an- a- a mobile radio access network-

Danielle Royston ([00:27:56](00:27:56)):

(laughs)

Scott Bicheno ([00:27:57](00:27:57)):

... and- and change to Huawei. And that will be... That... I suppose that will be my number one, kind of, pushback-

Scott Bicheno ([00:28:02](00:28:02)):

[crosstalk 00:28:02]

Scott Bicheno ([00:28:02](00:28:02)):

... pushback on it, yeah.

Danielle Royston (00:28:03):

Yeah.

Scott Bicheno (00:28:03):

[crosstalk 00:28:03]

Scott Bicheno (00:28:03):

[crosstalk 00:28:03] kicked off the pushbacks phase.

Scott Bicheno (00:28:05):

Yeah, I mean, if I was gonna... If I was gonna be awkward about it, and say, well, I get- I get the benefits, but here's why I'd [crosstalk 00:28:09]-

Scott Bicheno (00:28:09):

Yeah.

Danielle Royston (00:28:09):

Yeah.

Scott Bicheno (00:28:09):

... raise concerns about-

Danielle Royston (00:28:10):

Yeah, yeah.

Scott Bicheno (00:28:10):

... it, that would be my number one. One, I- I guess.

Danielle Royston (00:28:10):

Yeah, yeah.

Scott Bicheno (00:28:13):

Yeah.

Danielle Royston (00:28:13):

Well, I think, i- what that leads to, is this thinking around building my workloads in a way that I can repatriate them, back somewhere, or move them easily.

Scott Bicheno (00:28:23):

Right.

Danielle Royston ([00:28:24](#)):

And I think that leads you to choosing tools and systems that, um, can be moved. Right? You don't pick a- a proprietary database of Amazon, you know, or Spanner, y- I think i-

Scott Bucheon ([00:28:36](#)):

I mentioned Spa-

Danielle Royston ([00:28:37](#)):

... [crosstalk 00:28:37] an article about this-

Scott Bicheno ([00:28:38](#)):

... yeah, yeah, well I-

Danielle Royston ([00:28:38](#)):

[crosstalk 00:28:38]

Scott Bicheno ([00:28:38](#)):

... that, I mean, that was [crosstalk 00:28:38] be something I knew I should-

Danielle Royston ([00:28:38](#)):

Yeah,

Scott Bicheno ([00:28:38](#)):

... talk to James-

Danielle Royston ([00:28:38](#)):

Yeah.

Scott Bicheno ([00:28:41](#)):

... Crawshaw, who's an a- you know, you know James-

Danielle Royston ([00:28:42](#)):

I know James, yeah.

Scott Bicheno ([00:28:43](#)):

... somebody who [crosstalk 00:28:43] what he's talking about. So, [crosstalk 00:28:43]. Yeah.

Danielle Royston ([00:28:45](#)):

Right, so, Spanner's a proprietary database of Google-

Scott Bicheno ([00:28:47](#)):

Right.

Danielle Royston (00:28:47):

... but, like, Dynamo DB is a propriet-... i- they all have their proprietar-... Cosmo's DB is- is Azure, right?

Scott Bicheno (00:28:52):

Yup.

Danielle Royston (00:28:52):

They all have these proprietary... Not just databases, but the Graviton2 chips, right?

Scott Bicheno (00:28:57):

Yup.

Danielle Royston (00:28:57):

They don't exist in any other public cloud.

Scott Bicheno (00:28:59):

Yeah.

Danielle Royston (00:28:59):

And so, I think the danger of that is, like, okay, well we're gonna keep our workloads all on Intel. And give up a 40% price improvement on our workloads. Right? Needing less machines, or needing less time on those machines. Right?

Danielle Royston (00:29:12):

Because I wanna stay agnostic. And I wanna be able to move. And, um, you know, you have that problem today, right? With Oracle. Or with Amdocs. You can't switch off with those guys easily.

Scott Bicheno (00:29:24):

Right.

Danielle Royston (00:29:24):

You have it with your- your ki-... You're always gonna have this, and so-

Scott Bicheno (00:29:27):

Mmm. [inaudible 00:29:27] lock-in.

Danielle Royston (00:29:27):

Y- your always gonna ha- I mean, you just, you are. Right? I mean, and so, I think with the public cloud, with being API-based, like, all of the services are API-based. Almost always there's a mapping, you know, of, like, you know, there was a- a database like Spanner at- at Azure in a- AWS.

Scott Bicheno ([00:29:44](#)):

Yup.

Danielle Royston ([00:29:45](#)):

And so, yeah, you'd have to update it and stuff like that. I don't think it's impossible.

Scott Bicheno ([00:29:50](#)):

Yeah.

Danielle Royston ([00:29:50](#)):

It's possible, but I- I wouldn't go, "Oh I'm scared of that lock-in, and so I'm gonna build my workloads in a way that they can move at any time.

Danielle Royston ([00:29:59](#)):

And I think you give up a lot of the benefits of the public cloud when you do that. And so, if that's where you're gonna end up, I'm like, keep everything on premise, then.

Scott Bicheno ([00:30:06](#)):

Right.

Danielle Royston ([00:30:07](#)):

Okay.

Scott Bicheno ([00:30:07](#)):

But that- but that... speaks to the core p- objection pushback concern that Iain and I have discussed on the pod. So, you seem to be saying, I'm gonna do a bit of act- active listening here, make sure I've understood you correctly.

Scott Bicheno ([00:30:20](#)):

You seem to be saying that, if you're gonna get the best out of the public cloud, you gotta be all in.

Scott Bicheno ([00:30:25](#)):

And then, that feeds our concern about being all in.

Danielle Royston ([00:30:29](#)):

Yeah.

Scott Bicheno ([00:30:29](#)):

And surrendering that much control to a third party. I mean, the one I always, you know, I've got, as you may have gathered because I know you've listened-

Danielle Royston ([00:30:36](#)):

Mm-hmm (affirmative).

Scott Bicheno ([00:30:36](00:30:36)):

... to a few pods. So you may have gathered I- I'm... Things like, sort of, figure of speech, censorship-

Danielle Royston ([00:30:41](00:30:41)):

Yeah.

Scott Bicheno ([00:30:41](00:30:41)):

... civil liberties, that sort of thing are a big thing for me, for whatever reason. Um, and there was, um, at the start of the year there was this, uh, social media platform called Parlor.

Danielle Royston ([00:30:51](00:30:51)):

Yeah.

Scott Bicheno ([00:30:51](00:30:51)):

Which I didn't particularly use.

Danielle Royston ([00:30:52](00:30:52)):

Yeah.

Scott Bicheno ([00:30:53](00:30:53)):

But I was pleased that it existed as an alternative to Twitter-

Danielle Royston ([00:30:56](00:30:56)):

Mm-hmm (affirmative).

Scott Bicheno ([00:30:56](00:30:56)):

... Facebook, etc.

Danielle Royston ([00:30:57](00:30:57)):

Yeah.

Scott Bicheno ([00:30:58](00:30:58)):

Uh, and then it got branded as Trumpist or far-right, or-

Danielle Royston ([00:31:02](00:31:02)):

Yeah.

Scott Bicheno ([00:31:02](00:31:02)):

... whatever. What- whatever terms we use to conveniently other people.

Danielle Royston (00:31:06):

Yeah.

Scott Bicheno (00:31:06):

And that-

Danielle Royston (00:31:07):

Cancel.

Scott Bicheno (00:31:08):

Cancel, yeah.

Scott Bicheno (00:31:09):

[crosstalk 00:31:09]

Danielle Royston (00:31:09):

Cancel culture.

Scott Bicheno (00:31:09):

Exactly. Uh, and- and then, one thing led to another and AWS kicked them off. And that, to me, you know, and I- I'm not a bother about Parlor, in and of itself, but that to me, it was symptomatic of the... the almost infinite power-

Danielle Royston (00:31:26):

Yeah.

Scott Bicheno (00:31:27):

... that- that the platform- that a platform has. And th- and then you are- and you're saying that, you got to go all in. You know, they're not gonna kick off Vodafone.

Danielle Royston (00:31:34):

Yeah.

Scott Bicheno (00:31:34):

Or something.

Danielle Royston (00:31:35):

Yeah.

Scott Bicheno (00:31:36):

Um, but they could. I mean, it would be a weird-

Danielle Royston ([00:31:39](00:31:39)):

Mmm.

Scott Bicheno ([00:31:39](00:31:39)):

... business decision to kick off a, you know, a big multi-national.

Danielle Royston ([00:31:42](00:31:42)):

Big, yeah.

Scott Bicheno ([00:31:42](00:31:42)):

As opposed to a fringe little social media platform.

Scott Bicheno ([00:31:44](00:31:44)):

Well they- they could raise prices, is another one, I suppose, isn't it? That once, I mean at the moment it's... I know you talk about the- the cost savings and the efficiencies, but once everybody's on these platforms and there's only- there's only sort of... We're never gonna use Chinese platform, are we, probably?

Danielle Royston ([00:32:00](00:32:00)):

Yeah.

Scott Bicheno ([00:32:00](00:32:00)):

Uh- less- less likely than ever right now, isn't it?

Scott Bicheno ([00:32:00](00:32:00)):

So the- and, I- and I-

Danielle Royston ([00:32:01](00:32:01)):

Well, the other clouds are pretty far behind these [crosstalk 00:32:03]

Scott Bicheno ([00:32:02](00:32:02)):

Well, ah, you talk about that, as well Oracle and, who's the other one, there's only IBM.

Danielle Royston ([00:32:03](00:32:03)):

Well, IBM is fake.

Scott Bicheno ([00:32:07](00:32:07)):

That's pretty-

Danielle Royston ([00:32:07](00:32:07)):

I call it fake cloud. 'Cause it's not really-

Scott Bicheno (00:32:08):

Right.

Danielle Royston (00:32:09):

[inaudible 00:32:09]

Scott Bicheno (00:32:09):

So there's- so the other options aren't good.

Danielle Royston (00:32:12):

I mean, I don't know how a infrastructure company lost an infrastructure play-

Scott Bicheno (00:32:13):

Yeah.

Danielle Royston (00:32:13):

... to a retail company [inaudible 00:32:15] Amazon. But, IBM totally missed the boat on that.

Scott Bicheno (00:32:17):

That is a good point. How did they, do you think they were just slow?

Danielle Royston (00:32:20):

Yeah. I just, I-

Scott Bicheno (00:32:20):

To- to recognize the opportunity.

Danielle Royston (00:32:22):

I was really... Was I really-

Scott Bicheno (00:32:23):

And what-

Scott Bicheno (00:32:23):

[crosstalk 00:32:23] this one.

Scott Bicheno (00:32:24):

Go for it [crosstalk 00:32:24]

Danielle Royston (00:32:25):

Yeah, go for it. Electric Jellyfish, baby.

Scott Bicheno (00:32:26):

Only six and a half.

Scott Bicheno (00:32:26):

Yeah, fuckin have it, mate.

Scott Bicheno (00:32:28):

[crosstalk 00:32:28]

Danielle Royston (00:32:28):

Or do you want the- do you want the other, um, Hell Yes?

Scott Bicheno (00:32:30):

Well, there's some more in the- in the [crosstalk 00:32:31]

Scott Bicheno (00:32:31):

No, I'll just-

Danielle Royston (00:32:31):

Since- since I'm- since I'm [inaudible 00:32:33]

Scott Bicheno (00:32:32):

We got more of that in the Yeti, don't worry about it.

Scott Bicheno (00:32:33):

No, I think I should have an Electric Jellyfish.

Danielle Royston (00:32:34):

Okay. Great. Go for it. And maybe, yeah.

Scott Bicheno (00:32:36):

(laughs)

Scott Bicheno (00:32:36):

How- what was the Hell Yes like?

Scott Bicheno (00:32:37):

Uh, very good.

Danielle Royston (00:32:39):

Yeah? [inaudible 00:32:39]

Scott Bicheno (00:32:39):

Very good.

Scott Bicheno (00:32:40):

Is it like a... Is it a proper pale ale like-

Scott Bicheno (00:32:41):

Yeah, yeah.

Scott Bicheno (00:32:41):

... we like drinking?

Scott Bicheno (00:32:41):

Mm-hmm (affirmative).

Danielle Royston (00:32:42):

Yeah?

Scott Bicheno (00:32:42):

Cool.

Danielle Royston (00:32:42):

Approved? Maybe I'll have to ship- bring in more.

Scott Bicheno (00:32:45):

Well we- we got two of each left in the Yeti, here.

Danielle Royston (00:32:47):

Put in- put in- put in the order, when I come. I'll be back in December for The Great Telco Debate, so. Coming back.

Scott Bicheno (00:32:53):

I [inaudible 00:32:53] remember [crosstalk 00:32:53] Telecom TV, now.

Scott Bicheno (00:32:55):

Who does The Great Telco Debate?

Danielle Royston (00:32:59):

Yeah, uh...

Scott Bicheno (00:32:59):

That's a- that's a-

Danielle Royston ([00:32:59](#)):
[crosstalk 00:32:59]

Scott Bicheno ([00:32:59](#)):
[crosstalk 00:32:59]

Scott Bicheno ([00:32:59](#)):
Is that a-

Danielle Royston ([00:32:59](#)):
Yeah, oh, did they?

Scott Bicheno ([00:32:59](#)):
... uh, Telecom TV thing, The Great Telco Debate?

Scott Bicheno ([00:32:59](#)):
Yeah, they- they used to be separate, but, uh...

Danielle Royston ([00:33:00](#)):
I'm gonna there with my pom-poms.

Scott Bicheno ([00:33:02](#)):
Cool.

Scott Bicheno ([00:33:02](#)):
(laughs)

Scott Bicheno ([00:33:03](#)):
Well, well you're welcome back, you got an open invitation.

Danielle Royston ([00:33:05](#)):
Okay.

Scott Bicheno ([00:33:05](#)):
We'll have a round two.

Danielle Royston ([00:33:06](#)):
Yeah, I'll bring more beers.

Scott Bicheno ([00:33:07](#)):

Ye- (laughs)

Danielle Royston (00:33:09):
I had to [crosstalk 00:33:09]

Scott Bicheno (00:33:09):
You definitely got an open invitation.

Danielle Royston (00:33:10):
I had to ask people, like, I have, like, beer-drinking friends that are experts. I'm like, "Which one would you bring?"

Danielle Royston (00:33:14):
Do you like i- well, I have-

Scott Bicheno (00:33:15):
(laughs)

Danielle Royston (00:33:15):
... one question before, digress.

Scott Bicheno (00:33:17):
Yep.

Danielle Royston (00:33:17):
What are they called? Sour. Sours. Do you like-

Scott Bicheno (00:33:21):
I'm not a fan of sours.

Danielle Royston (00:33:21):
I- I thought it was whisky.

Scott Bicheno (00:33:23):
Sours. It tastes a bit like vomit.

Scott Bicheno (00:33:23):
I don't think I've... I don't think I've had one.

Danielle Royston (00:33:25):
(laughs) Sour beers.

Scott Bicheno ([00:33:26](#)):

Oh, yeah-

Scott Bicheno ([00:33:28](#)):

[crosstalk 00:33:28]

Scott Bicheno ([00:33:28](#)):

... I know them. No, not so much.

Danielle Royston ([00:33:28](#)):

Yeah, I decided, they were like, "Do they like sours?" And I was like, "Ooh, what is a sour?" And I was like, "Ooh, I don't [crosstalk 00:33:32]"

Scott Bicheno ([00:33:32](#)):

[crosstalk 00:33:32]

Scott Bicheno ([00:33:33](#)):

That's almost like a beer that's not been well maintained in a British pub.

Scott Bicheno ([00:33:36](#)):

Do you know what, while- while we're going for the tangent, I just-

Scott Bicheno ([00:33:37](#)):

(laughs)

Scott Bicheno ([00:33:38](#)):

... remembered, when- when I first met [inaudible 00:33:40] Danielle, so this is the first time we've met face-to-face.

Danielle Royston ([00:33:42](#)):

Mm-hmm (affirmative).

Scott Bicheno ([00:33:43](#)):

Um, first time we met. So Danielle, um-

Danielle Royston ([00:33:45](#)):

This is a great story.

Scott Bicheno ([00:33:46](#)):

... does a- does a PR through Babel. Uh- who we've mentioned a few times in this po-... In fact, they're the only of the- of the three PR agencies that- that- that sort of really got to know us.

Scott Bicheno ([00:33:55](00:33:55)):

Barely anyones, since Elena was on last, we- they haven't been on the pod.

Scott Bicheno ([00:33:59](00:33:59)):

Yeah.

Scott Bicheno ([00:33:59](00:33:59)):

So, you know, Iain, Narelle, Katie-

Scott Bicheno ([00:34:02](00:34:02)):

(laughs)

Scott Bicheno ([00:34:02](00:34:02)):

... I mean, Declan's outside.

Danielle Royston ([00:34:04](00:34:04)):

Yeah.

Scott Bicheno ([00:34:04](00:34:04)):

Um, they're all welcome, if they fancy... I mean, you know, the thing- the thing we do on the pod, which, you know, I had a feeling- a feeling, um, would be fine on it. But, the reason we don't get s- regular execs, we get, I get incoming stuff all the time going, you know, my-

Danielle Royston ([00:34:19](00:34:19)):

My person, yeah. Would love to be on.

Scott Bicheno ([00:34:19](00:34:19)):

... my VP of this, that, and the other would love to come on. And it's, like, no, it's- they've gotta be somebody who's up for the chat.

Danielle Royston ([00:34:25](00:34:25)):

Yeah.

Scott Bicheno ([00:34:25](00:34:25)):

Figured you would be, and you've definitely proven yourself to be. And-

Danielle Royston ([00:34:29](00:34:29)):

I brought props. (laughs)

Scott Bicheno ([00:34:29](00:34:29)):

(laughs)

Scott Bicheno ([00:34:30](00:34:30)):

... a- i- and- but one of the reasons I figured you would be is 'cause this- this, um, anecdote. Um-

Danielle Royston ([00:34:33](00:34:33)):

(laughs)

Scott Bicheno ([00:34:33](00:34:33)):

... the first sort of PR thing that- that Danielle did to, sort of, try and introduce herself to s- UK press, I guess.

Danielle Royston ([00:34:40](00:34:40)):

This is so embarrassing.

Scott Bicheno ([00:34:41](00:34:41)):

Was this... Well, it wasn't- it wasn't embarrassing, it was an interesting evening, though. There was this thing... This is in- this is while we're in lockdown. Quite early, wasn't it? This was back a year or so ago?

Danielle Royston ([00:34:48](00:34:48)):

Um, yeah, I wanna say it was like maybe July, August?

Scott Bicheno ([00:34:51](00:34:51)):

Right.

Danielle Royston ([00:34:52](00:34:52)):

Yeah.

Scott Bicheno ([00:34:52](00:34:52)):

Um, so, we're all semi-locked down. We're- we're still in that, sort of, initial phase of what that fuck's going on with coronavirus.

Scott Bicheno ([00:34:59](00:34:59)):

Um, and so we did this remote thing where you hired this profession chef.

Danielle Royston ([00:35:04](00:35:04)):

Mm-hmm (affirmative).

Scott Bicheno ([00:35:04](00:35:04)):

You sent everyone, to their house, this- this box of ingredients.

Danielle Royston ([00:35:09](00:35:09)):

Yup.

Scott Bicheno (00:35:09):

Including a couple of decent bottles of wine, I seem to remember.

Danielle Royston (00:35:11):

Yes.

Scott Bicheno (00:35:12):

Um, and, uh, and then we all had to cook. Like, we- we had to set up a Zoom in our kitchen.

Scott Bicheno (00:35:19):

Mmm.

Scott Bicheno (00:35:19):

And we all had to cook.

Danielle Royston (00:35:21):

And cook with chef.

Scott Bicheno (00:35:22):

And we all had to cook with the chef. And...

Danielle Royston (00:35:23):

It was a total disaster. (laughs)

Scott Bicheno (00:35:25):

(laughs)

Scott Bicheno (00:35:25):

Well, I didn't- I didn't think it was gonna be, I mean, you tell me what you think it was, but-

Danielle Royston (00:35:29):

I mean, it was a disaster.

Scott Bicheno (00:35:29):

... [crosstalk 00:35:29] the biggest-

Scott Bicheno (00:35:30):

[crosstalk 00:35:30] fun [crosstalk 00:35:31]

Danielle Royston (00:35:31):

[crosstalk 00:35:31]

Scott Bicheno (00:35:31):

... the biggest criticism I have of it is that the chef dwelt too long on minutiae. Like, just making a, sort of, Bearnaise type of sauce, or something like that.

Danielle Royston (00:35:37):

Correct.

Scott Bicheno (00:35:38):

Took- took half an hour. Um-

Scott Bicheno (00:35:40):

Wow.

Danielle Royston (00:35:40):

Correct.

Scott Bicheno (00:35:40):

(laughs)

Scott Bicheno (00:35:41):

... and obviously, if he'd been more pragmatic and he would have just- he would have just [crosstalk 00:35:45]

Danielle Royston (00:35:45):

[crosstalk 00:35:45]

Scott Bicheno (00:35:46):

Yeah, sent-

Danielle Royston (00:35:46):

Shipped us pr-

Scott Bicheno (00:35:46):

... us some pre-made Bearnaise or something.

Scott Bicheno (00:35:47):

[crosstalk 00:35:47]

Danielle Royston (00:35:47):

Okay. Bearnaise sauce-

Scott Bicheno (00:35:48):

[crosstalk 00:35:48] no one had skills

Danielle Royston (00:35:49):
N- yeah...

Scott Bicheno (00:35:50):
He thought everybody [crosstalk 00:35:50] a Michelin star [crosstalk 00:35:50]

Danielle Royston (00:35:50):
Okay, no one had skills.

Scott Bicheno (00:35:51):
Guess he never never to [crosstalk 00:35:52]

Danielle Royston (00:35:53):
Most of the people were men. The men call in their wives, it's like, so embarrassing.

Scott Bicheno (00:35:58):
[inaudible 00:35:58]

Danielle Royston (00:35:58):
We're making Bearnaise sauce, which as anyone-

Scott Bicheno (00:35:59):
(laughs)

Danielle Royston (00:35:59):
... who is a chef, it's one of the most difficult-

Scott Bicheno (00:36:01):
Yeah. There's all that egg yolk and chicken.

Scott Bicheno (00:36:02):
[crosstalk 00:36:02] heard about that.

Danielle Royston (00:36:02):
... sauces to make. I turn to my... I had a marketing person with me, in the house while it was cooking.

Danielle Royston (00:36:08):
I turn to her, and I was like, "I've literally seen better looking vomit."

Scott Bicheno (00:36:11):

(laughs)

Scott Bicheno (00:36:12):
(laughs) Oh it split? It- it split?

Danielle Royston (00:36:13):
My- my Bearnaise sucked.

Scott Bicheno (00:36:15):
[inaudible 00:36:15]

Danielle Royston (00:36:15):
And I was, like, fuck it.

Scott Bicheno (00:36:17):
(laughs)

Danielle Royston (00:36:17):
And I was like, just start drinking. I'm like, we're not serving this to anyone. We're not gonna actually eat it. We'll order, you know, takeaway later.

Scott Bicheno (00:36:24):
That's right.

Scott Bicheno (00:36:25):
[crosstalk 00:36:25]

Scott Bicheno (00:36:25):
Especially, like, with mayonnaise, and if it splits, it's horrible.

Danielle Royston (00:36:26):
Oh it- it was awful.

Scott Bicheno (00:36:28):
Yeah.

Scott Bicheno (00:36:28):
(laughs)

Scott Bicheno (00:36:28):
And anyway, but then-

Danielle Royston (00:36:30):

And I- and- yeah.

Scott Bicheno (00:36:30):

... the- the reason it, from my point of view, it wasn't a disaster. And I imagine for you as the client and th- and you had a certain idea of the choreography and how it would play out.

Danielle Royston (00:36:38):

(laughs)

Scott Bicheno (00:36:38):

I can why you'd think that. Is it was just novel, and memorable. And- and i- everyone's kitchen looked like a fucking bomb had hit it.

Scott Bicheno (00:36:45):

(laughs)

Danielle Royston (00:36:45):

(laughs)

Scott Bicheno (00:36:47):

Because this- 'cause this bloke had us doing sauces and sauteing stuff.

Danielle Royston (00:36:49):

I mean, we were whisking shit.

Scott Bicheno (00:36:49):

Yeah.

Danielle Royston (00:36:49):

We're like, you know-

Scott Bicheno (00:36:49):

(laughs)

Scott Bicheno (00:36:49):

You know...

Danielle Royston (00:36:51):

... we're making clarified butter. I'm like-

Scott Bicheno (00:36:55):

[inaudible 00:36:55]

Scott Bicheno (00:36:55):
And- and also, we hasn't necessarily been told that all this gear would be necessary.

Scott Bicheno (00:36:58):
So, everyone's having to leg it off, and he go, " Right, now just get a bowl, and then, you know, separate this from that, and- and do all this." And- and then, so people were doing this. And there was no pausing.

Scott Bicheno (00:37:08):
Bloke just didn't go, "I- I'll leave you to just work that out for ten minutes."

Scott Bicheno (00:37:11):
Yeah, [inaudible 00:37:11]

Scott Bicheno (00:37:11):
He's like, "All right, and now do this."

Danielle Royston (00:37:13):
Oh, it was such a disaster.

Scott Bicheno (00:37:13):
And so, I was lobbing stuff in the sink, there's like-

Danielle Royston (00:37:15):
(laughs)

Scott Bicheno (00:37:16):
... breadcrumbs flying around.

Scott Bicheno (00:37:17):
[crosstalk 00:37:17] you ever seen the level of skills that-

Scott Bicheno (00:37:17):
(laughs)

Scott Bicheno (00:37:18):
... was [crosstalk 00:37:18]

Scott Bicheno (00:37:18):
Oh yeah, there-

Danielle Royston (00:37:18):

[crosstalk 00:37:18]

Scott Bicheno (00:37:18):

... was one bit, he got us to do these m- do these little breadcrumb balls. And the- they're incredibly fi-... You had to sort of... I think that was the Bearna- yeah, it was the Bearnaise. The Bearnaise, you then put breadcrumbs in. And then you roll them into balls and fry them. And you could imagine-

Danielle Royston (00:37:30):

Oh he was, it's a [crosstalk 00:37:30] disaster.

Scott Bicheno (00:37:30):

... they're all breaking into bits in the frying pan.

Danielle Royston (00:37:33):

At one point, the chef, like, we finally make the main course, which is some sort of, like, meat or fish, and he has on Zoom, he puts the pl- he cooks it, shows us, like, this is what it looks like. We're like, okay, whatever.

Danielle Royston (00:37:44):

He puts it down. The d- his dog comes up, and eats the meat.

Scott Bicheno (00:37:48):

No way.

Scott Bicheno (00:37:48):

Excellent.

Scott Bicheno (00:37:50):

Oh yeah, there were about two or three-

Danielle Royston (00:37:51):

Like, this is a disaster.

Scott Bicheno (00:37:53):

... types of meat that we had to deal with, as well.

Danielle Royston (00:37:53):

This is such a disaster.

Scott Bicheno (00:37:54):

I know.

Danielle Royston ([00:37:54](#)):

Oh my god.

Scott Bicheno ([00:37:55](#)):

And then- and then- and then this whole thing, presumably Danielle hoped the cooking bit would last an hour, max.

Danielle Royston ([00:37:59](#)):

Oh yeah, [crosstalk 00:38:00]

Scott Bicheno ([00:37:59](#)):

It took- it look about two plus hours.

Danielle Royston ([00:38:02](#)):

[inaudible 00:38:02] so bad.

Scott Bicheno ([00:38:03](#)):

[inaudible 00:38:03]

Scott Bicheno ([00:38:03](#)):

Danielle finally got to do her bit of-

Danielle Royston ([00:38:06](#)):

I was like, I don't even know why I'm doing this.

Scott Bicheno ([00:38:06](#)):

... you know, this is what I'm all about.

Danielle Royston ([00:38:07](#)):

I don't even know what I'm doing. I'm like, drink wine. Fuck.

Scott Bicheno ([00:38:08](#)):

(laughs)

Scott Bicheno ([00:38:09](#)):

Katie- Katie-

Danielle Royston ([00:38:10](#)):

It sucked.

Scott Bicheno ([00:38:10](#)):

... who I'm- who I'm- who I'm good mates with [crosstalk 00:38:11]

Danielle Royston (00:38:11):
Well, so afterwards-

Scott Bicheno (00:38:12):
... was looking quite frazzled.

Danielle Royston (00:38:13):
Afterwar- afterwards, we're like, okay, next time we're just gonna do, like, a wine tasting or c-... And so now-

Scott Bicheno (00:38:19):
Mm-hmm (affirmative).

Danielle Royston (00:38:19):
... I do cocktail making parties.

Scott Bicheno (00:38:24):
Yeah. Well, now [crosstalk 00:38:25]

Danielle Royston (00:38:25):
Much simpler.

Scott Bicheno (00:38:25):
[crosstalk 00:38:25]

Scott Bicheno (00:38:25):
Yeah, yeah.

Scott Bicheno (00:38:26):
[crosstalk 00:38:26] whatever you want, you know.

Danielle Royston (00:38:26):
Yeah.

Scott Bicheno (00:38:26):
Yeah, just-

Danielle Royston (00:38:26):
And it's- it's great, so.

Scott Bicheno ([00:38:26](00:38:26)):

... just teach someone how to make a really good old fashioned or something like that.

Danielle Royston ([00:38:27](00:38:27)):

I have a virtual cocktail party coming up on October 13th.

Scott Bicheno ([00:38:29](00:38:29)):

Is it?

Danielle Royston ([00:38:30](00:38:30)):

Yeah. I'm gonna host it, it's an F1 themed... F1 uses the public cloud, in the pit.

Scott Bicheno ([00:38:35](00:38:35)):

Okay.

Danielle Royston ([00:38:36](00:38:36)):

To, uh, race, you know, in the race decisions. Um, using the analytics of the public cloud. Go public cloud. And so, we're doing, uh, Austin has an F1 track.

Scott Bicheno ([00:38:45](00:38:45)):

Mmm.

Scott Bicheno ([00:38:45](00:38:45)):

Mmm.

Danielle Royston ([00:38:45](00:38:45)):

The Circuit of the Americas. Um, and the race is the following week. We actually have two races, I think, this year.

Danielle Royston ([00:38:50](00:38:50)):

Because Singapore relocated it to Austin 'cause of COVID. So two F1's. So I'm gonna be at the track. There won't be any races there, and I'll have the turn one... COTA is famous for the most left turns in any of the F1 tracks.

Scott Bicheno ([00:39:05](00:39:05)):

Really?

Scott Bicheno ([00:39:05](00:39:05)):

Yup.

Danielle Royston ([00:39:05](00:39:05)):

And so, s- turn one goes up into a hill, at a very, it's like a hairpin left.

Scott Bicheno ([00:39:10](#)):

It's like a banks. [crosstalk 00:39:11]

Danielle Royston ([00:39:11](#)):

So you'll be able to see [crosstalk 00:39:12]

Scott Bicheno ([00:39:12](#)):

[crosstalk 00:39:12] of me, because they were like, well, in America it's like NASCAR, so we have to turn left.

Scott Bicheno ([00:39:14](#)):

Yeah.

Danielle Royston ([00:39:14](#)):

I get- I guess, I don't know. But, um, so we're gonna do an F1 themed-

Scott Bicheno ([00:39:15](#)):

Wow. Cool.

Scott Bicheno ([00:39:15](#)):

Yeah.

Danielle Royston ([00:39:20](#)):

... cocktail party. It'll be fun.

Scott Bicheno ([00:39:21](#)):

Well, you certainly seem to have a, uh, imaginative [inaudible 00:39:24] which- which is good. And I've gotta say, by the way, this, um...

Danielle Royston ([00:39:26](#)):

Electric-

Scott Bicheno ([00:39:26](#)):

Yeah.

Danielle Royston ([00:39:26](#)):

... Jellyfish.

Scott Bicheno ([00:39:26](#)):

This Electric Jellyfish, which is 6.5%, it doesn't taste like 6.5%, does it?

Scott Bicheno ([00:39:32](#)):

It's delicious.

Scott Bicheno ([00:39:33](#)):
Which is even more dangerous.

Scott Bicheno ([00:39:34](#)):
It's very good.

Danielle Royston ([00:39:34](#)):
Do you want your- your...

Scott Bicheno ([00:39:35](#)):
No, I'm [inaudible 00:39:36]

Danielle Royston ([00:39:35](#)):
Okay.

Scott Bicheno ([00:39:36](#)):
And it's- it's a hazy [crosstalk 00:39:37]

Scott Bicheno ([00:39:37](#)):
Here's when we got to get back in [crosstalk 00:39:41] doesn't want to get too [crosstalk 00:39:41]

Danielle Royston ([00:39:41](#)):
So, yeah, I mean, it was hi- multiple people rave about this beer.

Scott Bicheno ([00:39:42](#)):
It's very good.

Scott Bicheno ([00:39:42](#)):
It's good.

Danielle Royston ([00:39:43](#)):
And it comes from a pizza place.

Scott Bicheno ([00:39:45](#)):
I know. W- w- [crosstalk 00:39:46]

Danielle Royston ([00:39:45](#)):
They have these big, you know, craft [crosstalk 00:39:47]

Scott Bicheno ([00:39:48](#)):

I wanna get to Austin even more, now.

Scott Bicheno (00:39:48):
[crosstalk 00:39:48] use the same yeast?

Danielle Royston (00:39:48):
Yeah. It's great.

Scott Bicheno (00:39:49):
Um...

Danielle Royston (00:39:50):
But where were we? We were- we were talking-

Scott Bicheno (00:39:51):
Uh, yeah, yeah, that was a bit of a tangent.

Danielle Royston (00:39:52):
You were talking about P- Parlor, and how [crosstalk 00:39:54] it is. Yup.

Scott Bicheno (00:39:54):
Okay, yeah, so- so, yeah. Let's... So, let me summarize, I mean, I know you know it already-

Danielle Royston (00:39:58):
Yeah, yeah.

Scott Bicheno (00:39:58):
... but for the sake of this pod. Let me summarize the pushback. It's the- it's the consolidation of power. It's the false econom-

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Scott Bicheno (00:40:03):
... pushback. It's the, it's the consolidation of power, it's the false economy of big companies thinking we can save a few quid by outsourcing all our cloud, all our service stuff-

Danielle Royston (00:40:12):
Yeah.

Scott Bicheno (00:40:12):
... to someone else. It's the, um, it's just the, the pushback on big tech, which I'm sure you're aware, there's quite a lot happening in the sort of legislative, political sort of area.

Danielle Royston (00:40:22):

Yeah, yeah.

Scott Bicheno (00:40:22):

They're all s- they've got to the point where we've got the big, you know, whichever acronym you use, but I think, you know, I th- you'd call 'em the hyperscalers. Let's say, let's say Amazon, Amazon and Google are probably the definitive ones. Apple's huge, but more from a different [crosstalk 00:40:38] and a consumer point of view. Facebook's huge, but from, from a specifically so-social media point of view-

Danielle Royston (00:40:44):

Mm-hmm (affirmative).

Scott Bicheno (00:40:44):

... and there's one or two others that come up, but I'd say A-Amazon and Google are probably the daddies, as far as having incredible reach in everyone's life, whether it's business life, or consumer life. I use Gmail, I use Google everything. I've got, I've even got a, um-

Danielle Royston (00:41:02):

Android.

Iain Morris (00:41:03):

Pixel.

Scott Bicheno (00:41:03):

Yeah, but it's not just an Android, it's a Pixel.

Danielle Royston (00:41:05):

Yeah, yeah.

Scott Bicheno (00:41:05):

It's a Google phone.

Scott Bicheno (00:41:06):

But, but the other one with, um, the, the cloud specifically as well, is the, is the, sort of, security side of it, which I think we've talked about before on the pod. I mean, there's been quite a bit of coverage recently, of things like, you know, when, when Fastly had that outage, and it brought down-

Scott Bicheno (00:41:18):

Hm.

Scott Bicheno (00:41:19):

... lots of, lots of different sites.

Danielle Royston (00:41:20):

Mm-hmm (affirmative).

Scott Bicheno (00:41:21):

I mean, if you have, um, you know, if you have a problem on a, on a, on Totogi for instance, if there's a ch- one charger-

Danielle Royston (00:41:26):

Yeah, yeah.

Scott Bicheno (00:41:27):

... for lots of customers, lots of customers, do you then have this sort of ripple effect where it could affect, or is if it's just, if it's just a sort of an on-premise solution, there was a security problem, then you'd be less sort of exposed is-

Scott Bicheno (00:41:37):

So, so I guess we could summarize the objection, which I'll, I'll then pass on to you to sort, sort of-

Danielle Royston (00:41:39):

Yeah.

Scott Bicheno (00:41:40):

... to field.

Danielle Royston (00:41:41):

Yeah.

Scott Bicheno (00:41:41):

Is it's the all your eggs in one basket objection.

Danielle Royston (00:41:44):

Mm-hmm (affirmative), mm-hmm (affirmative).

Scott Bicheno (00:41:44):

What do you think about that?

Danielle Royston (00:41:45):

Yeah, I mean, in terms of, I mean, the public cloud, your, your, your parlor point about their ability to censor you or kick you off, right? I mean, that is, you know, it is a possibility. It's not, not, it's not zero, right?

Scott Bicheno (00:41:59):

Yeah.

Danielle Royston (00:41:59):

Now, I think your point about, you know, are they gonna kick off a bi- a big brand like Vodafone? Maybe unlikely, and I think-

Scott Bicheno (00:42:07):

But they could.

Danielle Royston (00:42:08):

But they could, and the thing is is that I think executive teams at telcos, moving to the public cloud is a multi-year endeavor. It's a significant endeavor to move your workloads, move them right, optimize the pricing, understand the pricing, hire the teams. I mean, this is gonna take a long time, and so you can't just move there in a dime. And so you can sit and wait and see how these things pan, d- you know, I know Iain's you brought up it, you know, if it was regulated I'd feel a little bit better, or-

Scott Bicheno (00:42:35):

Hm.

Danielle Royston (00:42:35):

... you know, if they put in, you know, whatever it is, but-

Scott Bicheno (00:42:38):

Yep, yeah, same would go, same would go for social media as far I'm concerned, which is, which is like almost like a consumer side of a similar coin.

Danielle Royston (00:42:43):

Mm-hmm (affirmative), and so you could wait for those things to happen, but I think an exectuti- an executive team has to weigh, "Well, what is my next competitor gonna do?" And if they don't have those concerns, and they start their-

Scott Bicheno (00:42:56):

Hm.

Danielle Royston (00:42:56):

... five year journey in, right? And they start, you know, they don't get kicked off. Things get better. Things get cheaper. They get faster, and they have the ability to put out business ideas faster than you and start stealing your subscribers or stealing your enterprise customers while you're waiting for these things to be sorted, right? Those are the things you gotta weigh.

Scott Bicheno (00:43:14):

Yes.

Danielle Royston (00:43:15):

And I, and, you know, I did an MWC keynote this year on the paradox of the public cloud. I do think there's two sides to it. It's not 100% no-brainer, good you should do it.

Scott Bicheno (00:43:26):

Hm.

Danielle Royston (00:43:26):

I think there are some downsides, right? There's some risk. There's some like Fastly, there's some issues where something goes down, you are potentially exposed. But I think the upsides outweigh the downsides-

Scott Bicheno (00:43:38):

Yeah, so it's a risk reward argument in, in, in summary.

Danielle Royston (00:43:39):

It is, and I think, I-I, you know, executives, you know-

Scott Bicheno (00:43:43):

But that's honest of you-

Danielle Royston (00:43:43):

Yeah.

Scott Bicheno (00:43:43):

I mean, because, you know, it's one thing, from an English point of view, describing yourself a-as an evangelist, is not a positive.

Danielle Royston (00:43:52):

Yeah (laughs).

Scott Bicheno (00:43:52):

'Cause we, we're stuffy old-

Danielle Royston (00:43:54):

Do you have a better word for me (laughs)?

Scott Bicheno (00:43:55):

Um, oh, no.

Scott Bicheno ([00:43:57](00:43:57)):

Well, I, well [crosstalk 00:43:58]-

Scott Bicheno ([00:43:57](00:43:57)):

I mean, not necessarily-

Danielle Royston ([00:43:58](00:43:58)):

Good, yeah.

Scott Bicheno ([00:43:58](00:43:58)):

I mean, you, you sort of parodied cheerleader.

Danielle Royston ([00:44:00](00:44:00)):

Yeah, yeah.

Scott Bicheno ([00:44:00](00:44:00)):

But both evangelists and cheerleader, I mean, obviously they seem, especially cheerleaders dif- uh, by definition American.

Danielle Royston ([00:44:07](00:44:07)):

I mean, blindly, blindly devoted to that. Yeah.

Scott Bicheno ([00:44:09](00:44:09)):

Exactly, it makes, it's easy to assume that someone, and I didn't necessarily ever assume that of you by the way-

Danielle Royston ([00:44:14](00:44:14)):

Yeah, yeah.

Scott Bicheno ([00:44:14](00:44:14)):

... but and actually, if someone's got their agenda on the table, that makes things simpler.

Danielle Royston ([00:44:19](00:44:19)):

Yeah.

Scott Bicheno ([00:44:19](00:44:19)):

Then, you start from the position that we've had in this conversation. You got your agenda. We got ours. Let's see where they meet in the middle-

Danielle Royston ([00:44:25](00:44:25)):

Yeah, yeah.

Scott Bicheno ([00:44:25](00:44:25)):

... if at all.

Danielle Royston ([00:44:25](00:44:25)):

Yeah, yeah.

Scott Bicheno ([00:44:27](00:44:27)):

Um, but, yeah. No, I-I don't necessarily have a better word than evangelist. I suppose, um, enthusiast, supporter, investor, wh-which is gonna lead me onto another question I want to ask you.

Danielle Royston ([00:44:37](00:44:37)):

Yeah, yeah. Yeah, yeah.

Scott Bicheno ([00:44:38](00:44:38)):

Um, but yeah, that's the only thing. Wh-when you hear, when I hear as, with my English ears-

Danielle Royston ([00:44:43](00:44:43)):

Yeah.

Scott Bicheno ([00:44:43](00:44:43)):

... and I'm sure American ears are different. When I hear evangelist, I'm thinking, "Is this person just gonna be a single issue-"

Danielle Royston ([00:44:49](00:44:49)):

Yeah. Yeah, no, I mean-

Scott Bicheno ([00:44:50](00:44:50)):

... "banging on about it. Not listen to any counterarguments."

Danielle Royston ([00:44:53](00:44:53)):

I think, I mean, it's different by country, um, you know, the consideration of the public cloud. Is, is there a hyperscaler in country. If not, is there one that's friendly? C- are you able to do it, and it's, it is literally different country by country. Um, you know, a conversation with Russia is gonna go very differently than a conversation with Canada.

Scott Bicheno ([00:45:12](00:45:12)):

Hm.

Danielle Royston ([00:45:12](00:45:12)):

Right? And so, I mean, I have my team researching like what are the rules for, you know, when I go talk to someone-

Scott Bicheno ([00:45:20](00:45:20)):

Yeah.

Danielle Royston ([00:45:20](00:45:20)):

... what are their, what's the rule for Bolivia? I don't know what it is.

Scott Bicheno ([00:45:22](00:45:22)):

Hm.

Danielle Royston ([00:45:23](00:45:23)):

There's not a hyperscaler there. There's not one coming any time soon.

Scott Bicheno ([00:45:26](00:45:26)):

Yeah.

Danielle Royston ([00:45:26](00:45:26)):

What should a Bolivian telco do about the public cloud, and so I think, uh, yeah. I think, each leadership team has to consider it. They gotta consider, you know, the market and what their competitors are doing. And if no one's doing anything, and would it be better if the public cloud wasn't around, maybe.

Scott Bicheno ([00:45:46](00:45:46)):

Well-

Danielle Royston ([00:45:46](00:45:46)):

But it is here, and you gotta deal with it.

Scott Bicheno ([00:45:48](00:45:48)):

But I-I, the, the telco iss- I mean, we talked about this a bit ear- a bit earlier, but just coming back to this-

Danielle Royston ([00:45:51](00:45:51)):

Yeah.

Scott Bicheno ([00:45:51](00:45:51)):

... sort of lock-in issue, which does seem to be quite a, um, I talked to Orange this week. I mean, I think you read the article actually-

Danielle Royston ([00:45:56](00:45:56)):

Yeah, yeah, yeah.

Scott Bicheno ([00:45:56](00:45:56)):

... and, and they interestingly raised the point about we've al- we've been talking about Ericson and, um, and, Huawei for ages-

Danielle Royston (00:46:02):

Yeah.

Scott Bicheno (00:46:03):

... and, and we need to be careful with the public cloud that we don't have another sort of form of lock-in.

Danielle Royston (00:46:06):

Yeah.

Scott Bicheno (00:46:06):

I mean, is there-

Danielle Royston (00:46:06):

But I think software lock-in is different than-

Scott Bicheno (00:46:08):

'cause I know, I know you don't like the expression cloud ag- cloud agnostic. You've sort of objected to in the past-

Danielle Royston (00:46:12):

Yeah, yeah.

Scott Bicheno (00:46:12):

... which sounds like if a, it's one of those terms that's gets thrown out to suggest that you could sort of move things around quite easily.

Danielle Royston (00:46:18):

Yeah.

Scott Bicheno (00:46:18):

But is there something that can be done to sort of address that conc- you know, if so- if there was a point let's say in the future where someone had gone all in on AWS... Well, someone has. Dish, dish kind of has-

Danielle Royston (00:46:28):

Yeah, yeah.

Scott Bicheno (00:46:29):

And then, they went, "Well, actually, we want to go to Microsoft Azure." The, it, it could be done without it coming this sort of multi-year, you know-

Danielle Royston (00:46:37):

I mean, it's-

Scott Bicheno (00:46:38):

... massive investment project [crosstalk 00:46:40].

Danielle Royston (00:46:40):

... I think it's easier to move to a different cloud than it is to move from-on premise to a public cloud.

Scott Bicheno (00:46:45):

Right.

Danielle Royston (00:46:46):

And when you do that first move from on-premise to the public cloud, the software-ification, I think that was the word you used. Like moving everything into software, I mean, it's easier to move things around when it's software than versus hardware, right? When-

Scott Bicheno (00:46:58):

Extremely depending on how much of the proprietary stuff from the cloud-

Danielle Royston (00:47:02):

You're using.

Scott Bicheno (00:47:02):

... provide we have, uh, [crosstalk 00:47:02]-

Danielle Royston (00:47:02):

Right.

Scott Bicheno (00:47:03):

And I, I took your point earlier. I thought that was a really good one. You know, if you're really worried about it, if you're a Scott level of paranoid about it-

Danielle Royston (00:47:10):

Don't do it. Wait.

Scott Bicheno (00:47:11):

... then, then use non-proprietary sort of-

Danielle Royston (00:47:14):

You can do that, but there was a really good blog-

Scott Bicheno (00:47:16):

But they, yeah, sorry to butt in-

Danielle Royston (00:47:16):

Yeah.

Scott Bicheno (00:47:17):

But then, your, your point also seemed to be that if you do that, you lose some of the [crosstalk 00:47:20].

Danielle Royston (00:47:20):

Benefits.

Scott Bicheno (00:47:21):

But i-isn't that one of the things about Totogi though, that you're, I mean, you're based on AWS, and to, to s- to sort of use that, you'd have to be on AWS as I understand.

Danielle Royston (00:47:29):

No.

Scott Bicheno (00:47:29):

You don't have to be on [crosstalk 00:47:30].

Danielle Royston (00:47:29):

I mean, what we're providing is a managed platform.

Scott Bicheno (00:47:32):

Okay.

Danielle Royston (00:47:32):

So it's a little bit like SalesForce. Like do you know where SalesForce runs?

Scott Bicheno (00:47:35):

Right.

Danielle Royston (00:47:35):

No, do you care?

Scott Bicheno (00:47:36):

Good point.

Danielle Royston (00:47:37):

Doesn't really matter, and so we've made that decision, right? And it, it's, it's gonna be hard for telcos because they're so used to dictating, like literally, they tell vendors, "Well, we use Oracle databases."

Scott Bicheno ([00:47:49](00:47:49)):

Yeah.

Danielle Royston ([00:47:49](00:47:49)):

So your product has to support it, and then, the next guy's like, "Well, we're a Microsoft shop. We do SQL server." Forcing vendors to now support two different database for their same product. I mean, and because that's what you guys picked.

Scott Bicheno ([00:48:01](00:48:01)):

Yeah.

Danielle Royston ([00:48:01](00:48:01)):

And the rest of the world in software has moved, like "Nope, we manage the whole stack. You're not gonna pick these different technical components within it. If you wanna use our product and our service," like SalesForce, you don't know what database they're running on. You don't care. You just care that it works.

Scott Bicheno ([00:48:15](00:48:15)):

But, but could a telco be all in with, uh, um, Microsoft Azure and, and be able to make use of Totogi.

Danielle Royston ([00:48:20](00:48:20)):

Mm-hmm (affirmative).

Scott Bicheno ([00:48:20](00:48:20)):

They could do that. They can.

Danielle Royston ([00:48:20](00:48:20)):

Correct, yeah.

Scott Bicheno ([00:48:20](00:48:20)):

Okay, I got it.

Danielle Royston ([00:48:22](00:48:22)):

Yeah, absolutely, and so it'll, it, it doesn't matter where your, I mean, you're gonna have integration to other systems and-

Scott Bicheno ([00:48:27](00:48:27)):

Yeah.

Danielle Royston (00:48:27):

... they may be on-premise. They may be in another public cloud, and, and we can work with those, those things.

Scott Bicheno (00:48:32):

Okay.

Danielle Royston (00:48:32):

I mean, just, we're just trying to, to expose the layer that matters, which is, what are your tariff plans? What are your... that's the differentiation, right? I mean, think if, if another thing you guys talk about is, if you give up all the stuff, are you giving up your ability to differentiate yourself as a telco? And I like to argue, that differentiation isn't managing the Dell servers-

Scott Bicheno (00:48:53):

Yeah.

Danielle Royston (00:48:53):

The differentiation is in the topmost layer, which is what are your tariffs, and what's your value proposition to subscribers?

Scott Bicheno (00:48:58):

Yeah, although I'd say, I mean, looking, looking at this over maybe 20 years-

Danielle Royston (00:49:03):

Yeah.

Scott Bicheno (00:49:03):

... which is the, the transition that you think might happen, I mean, there's a lot of concern. It has been for, for ages now about the internet companies as, you know, this is broader than public cloud. It's on the Scott, stuff that Scott was just talking about, them being real sort of challenges on the services side to, to, to telcos. And, you know, we see the impact they've had in retail or, or, or whatever it might be.

Danielle Royston (00:49:23):

Yeah, yeah.

Scott Bicheno (00:49:23):

I mean, do we get to a point where, I-I mean Microsoft in particular seems to be very, very interested in being a-a big kind of communications force.

Danielle Royston (00:49:31):

Yeah.

Scott Bicheno ([00:49:31](00:49:31)):

It has a massive portfolio of offerings now.

Danielle Royston ([00:49:33](00:49:33)):

Yeah.

Scott Bicheno ([00:49:33](00:49:33)):

Does it get to a stage where all these networks are really just sort of utility firms run by a-a-a small number of public clouds in the next 20 years and-

Danielle Royston ([00:49:44](00:49:44)):

Well, I, yeah, yeah. I mean, I don't think they'll be-

Scott Bicheno ([00:49:45](00:49:45)):

... it's quite a philosophical sort of question to put forth but-

Danielle Royston ([00:49:48](00:49:48)):

Yeah, I mean, I don't, I think, you know, running a network, right? I don't think the public cloud vendors want that business, right?

Scott Bicheno ([00:49:54](00:49:54)):

Yeah.

Danielle Royston ([00:49:54](00:49:54)):

They're gonna leave it to the telcos, right? And so, no one wants that business, right? It's a hard business to run, so I don't think that's the threat. And I think number two, these guys are software people at their heart selling to a very, you know, they wanna sell to everyone, all the enterprises. I don't think they're going after, that's not like an easy adjacency for them of like managing-

Scott Bicheno ([00:50:15](00:50:15)):

S-so you don't think, uh, the hyperscalers, the public cloud companies would get into, for example, BSS, OSS?

Danielle Royston ([00:50:22](00:50:22)):

Um, I-I mean, I don't know that they have, uh, industry specific offerings in other industries.

Scott Bicheno ([00:50:28](00:50:28)):

Right.

Danielle Royston ([00:50:29](00:50:29)):

Like let's take fintech which is su-

Scott Bicheno ([00:50:30](#)):

But that doesn't seem like an unlikely evolution, so one of the things, one of the things that fuels my, for want of a better word, paranoia-

Danielle Royston ([00:50:38](#)):

Yeah.

Scott Bicheno ([00:50:39](#)):

... is I know compared to my contemporaries, my mates-

Danielle Royston ([00:50:42](#)):

Yeah.

Scott Bicheno ([00:50:43](#)):

... I see something happen, and I'm always extrapolating it.

Danielle Royston ([00:50:47](#)):

Yeah.

Scott Bicheno ([00:50:47](#)):

I'm going, "Okay, what's the fucking precedent that's being set here?"

Danielle Royston ([00:50:49](#)):

Yeah.

Scott Bicheno ([00:50:50](#)):

What's gonna happen five years down the line as a result of this? Like a lot of the stuff that's being going on during the whole COVID thing, a lot of the restrictions of civil liberties. Yeah, some people are like, "All right, Scott. Calm down. We're just trying to get over a pandemic." And I'm like, "Yeah, but now we've set the precedent that a state can insist on this, not insist on that-"

Danielle Royston ([00:51:06](#)):

Yeah.

Scott Bicheno ([00:51:06](#)):

... "Can mandate this, mandate that," and that's fine. [inaudible 00:51:09] like me, and I'm not even saying I'm right. I'm just, uh, just admitting my biases-

Danielle Royston ([00:51:13](#)):

Yeah, yeah.

Scott Bicheno ([00:51:14](#)):

... and, and all that sort of thing. But I think that's where lot, a lot of this stuff comes for me. I-I think, "Okay, this is fine now, but what about five years down the line?" You know, if, I use social media. If Facebook can stop me posting loony conspiracy theories about COVID now-

Danielle Royston ([00:51:31](#)):

About the public cloud (laughs).

Scott Bicheno ([00:51:31](#)):

About, about public cloud-

Danielle Royston ([00:51:32](#)):

About the public cloud.

Scott Bicheno ([00:51:32](#)):

(laughs).

Scott Bicheno ([00:51:33](#)):

No, it hasn't started-

Danielle Royston ([00:51:33](#)):

(laughs).

Scott Bicheno ([00:51:33](#)):

(laughs).

Scott Bicheno ([00:51:34](#)):

... hasn't started censoring people on that yet.

Scott Bicheno ([00:51:36](#)):

(laughs).

Scott Bicheno ([00:51:36](#)):

But it can stop me saying that, you know, it's all a conspiracy by the CIA or whatever bullshit someone make, make up.

Danielle Royston ([00:51:42](#)):

(laughs). [crosstalk 00:51:42].

Iain Morris ([00:51:42](#)):

I see, you, YouTube, YouTube just announced that they're gonna delete all anti-vax videos.

Scott Bicheno ([00:51:45](#)):

I know, I wrote about that today. I wrote about that today.

Scott Bicheno (00:51:46):

Really?

Scott Bicheno (00:51:46):

Um, so yeah, if you, well, that's a good one. I just wrote about it today. If YouTube can say that we're restricting all, all content that is skeptical about the mainstream medical consensus on COVID-

Iain Morris (00:51:57):

No, no, this one is about anti-vaxxing videos.

Scott Bicheno (00:51:59):

Yeah, [inaudible 00:52:00].

Scott Bicheno (00:52:00):

That's what he said.

Iain Morris (00:52:02):

No, you're, you're broader than what they said.

Scott Bicheno (00:52:04):

Yeah, well, because I think it is that broad. Anti-vaxxing sounds, anti-vaxxing sounds like you're just dealing with nutters. Um, I think, I think they will, they're gonna censor people who just go, it just expects, it, blah, express skepticism.

Scott Bicheno (00:52:18):

That's too much of that, that electric [crosstalk 00:52:20] you've had.

Scott Bicheno (00:52:20):

Too much of that [crosstalk 00:52:21], uh-

Scott Bicheno (00:52:20):

(laughs).

Danielle Royston (00:52:22):

It is. I'm so sorry, but also tell me how much you love the public cloud (laughs).

Scott Bicheno (00:52:24):

(laughs).

Scott Bicheno (00:52:26):

Anyway, but, but that's the point. I'll extrapolate that. You can get, you can get down, let's even if, even if, even if we frame it your way, you can get done for being an anti-vaxxer today, but can you get done for being an anti-something else-er tomorrow? But anyway, I'm not saying I'm necessarily right, and maybe I'm too twitchy in that way. Maybe I should take it down a notch, but that's what, that's what I apply to my biggest concerns about the public cloud is, is like, "Okay, they've got-"

Danielle Royston (00:52:48):

I mean, I mean, you can leave at anytime, right? Like what's so great about the public cloud, unlike some of the vendors that we have in telco where you sign multi-year deals, right? And it's, it's really hard to get out of these contracts. I mean, I think Oracle very famously it's very difficult, right?

Scott Bicheno (00:53:03):

Right.

Danielle Royston (00:53:04):

They, they come and audit you. They find how you're not using their license right. "Oh, here's this hefty fee we're gonna..." truce.

Scott Bicheno (00:53:10):

It's like Comcast. So they, they-

Scott Bicheno (00:53:10):

So they're quite popular with the government customers aren't they, Oracle (laughs)?

Danielle Royston (00:53:12):

Right, I mean, they, I mean, Oracle's famous for this.

Scott Bicheno (00:53:16):

So like their, their SLA, their SLA is setup such that it's punitive to leave, which, which seems to be what you're describing.

Danielle Royston (00:53:21):

Well, they have the right to, they have the right to audit you. When they find, they always find something wrong.

Scott Bicheno (00:53:25):

Right.

Danielle Royston (00:53:25):

They come in with a hefty-

Scott Bicheno (00:53:26):

Why do they have the right audit? I mean, that's cheap isn't it?

Danielle Royston (00:53:26):

It's in the, it's in their contract.

Scott Bicheno (00:53:27):

If I want to stop using like, I'm with EE for my phone-

Danielle Royston (00:53:31):

Well, it's a trade o-

Scott Bicheno (00:53:32):

EE couldn't come fucking audit me if I wanted to go to Vodafone. That'd be ridiculous.

Scott Bicheno (00:53:35):

(laughs).

Danielle Royston (00:53:35):

Well, no, I mean, th- you install their database on-premise, right?

Scott Bicheno (00:53:39):

Right.

Danielle Royston (00:53:40):

They give you install discs or in a, or a download. You use the license key in other places.

Scott Bicheno (00:53:46):

Yeah.

Danielle Royston (00:53:46):

They love that database to kind of proliferate through the organization. They co- They're like, "You..." Microsoft does it too, right? They come and they say, "You have X number of licenses for Windows or Office or whatever." And when you're out of compliance, they hit you with the bill. It is their right. I mean, you're, you are stealing their, their license, so they come in. And they, they wanna chew you up.

Scott Bicheno (00:54:08):

'Cause you're using it wrong.

Danielle Royston (00:54:09):

You, well, you've, you've installed it in too many places, and you have to pay.

Scott Bicheno (00:54:12):

Oh, I see. Oh, so people being cheeky when you've paid for 100 licenses and you use 110-

Danielle Royston (00:54:16):
And you use 150 or 110, right?

Scott Bicheno (00:54:17):
Yeah, yeah. Oh, I see, so that's why they have to have the audit capacity. That makes sense.

Danielle Royston (00:54:19):
And so they do, and so they come in and like, "We found it all these places." And you're like, "Holy shit. That's a big number." And they're like, "Well, sign the..." you know, hey, whatever their-

Scott Bicheno (00:54:28):
Maybe, maybe we can work something out.

Danielle Royston (00:54:29):
We can work something out.

Scott Bicheno (00:54:30):
(laughs).

Danielle Royston (00:54:30):
We, right? Why don't you use our Oracle cloud? Right?

Scott Bicheno (00:54:34):
(laughs).

Danielle Royston (00:54:34):
And then they're announce an Oracle cloud.

Scott Bicheno (00:54:35):
I'm gonna have to get my Marlon Brando voice out.

Scott Bicheno (00:54:37):
F-fake, fake, uh, fake clouds.

Danielle Royston (00:54:37):
Fake cloud.

Scott Bicheno (00:54:38):
(laughs).

Scott Bicheno ([00:54:39](https://)):

What, what, what do you think of, um, I mean, just looking at the Chinese 'cause we've just seen that we're probably not gonna be able to use those clouds here anyway but-

Danielle Royston ([00:54:45](https://)):

Yeah.

Scott Bicheno ([00:54:46](https://)):

But Huawei's quite keen on being a big, well, it says it is a big cloud player now in, in China-

Scott Bicheno ([00:54:51](https://)):

That's-

Danielle Royston ([00:54:51](https://)):

Yeah.

Scott Bicheno ([00:54:51](https://)):

That's it's, that's it's pivot.

Danielle Royston ([00:54:51](https://)):

(laughs).

Scott Bicheno ([00:54:52](https://)):

And in, in, that's, that's it's big pivot.

Danielle Royston ([00:54:52](https://)):

Well, I think-

Scott Bicheno ([00:54:53](https://)):

And I, and I remember talking to James about this-

Danielle Royston ([00:54:54](https://)):

Yeah.

Scott Bicheno ([00:54:54](https://)):

... so James Crawshaw, and he was really skeptical that they'd have any chance at all of taking on Alibaba-

Danielle Royston ([00:55:00](https://)):

Well-

Scott Bicheno ([00:55:01](https://)):

... and for the same reason, he said, "Well, what would you think if Ericson said we're gonna be a public cloud player?"

Danielle Royston ([00:55:05](#)):

Yeah.

Scott Bicheno ([00:55:05](#)):

Um-

Scott Bicheno ([00:55:05](#)):

But the Yanks aren't gonna allow, so- excuse my use of the word.

Scott Bicheno ([00:55:08](#)):

No, no I-

Scott Bicheno ([00:55:08](#)):

I don't mean it in a pejorative way.

Danielle Royston ([00:55:09](#)):

That's okay.

Scott Bicheno ([00:55:09](#)):

Uh-

Scott Bicheno ([00:55:10](#)):

But I'm not, I'm not talking about them doing it in America or the West. I'm talking about them doing it in China-

Danielle Royston ([00:55:14](#)):

Just in, just in general, yeah.

Scott Bicheno ([00:55:14](#)):

... and in Asian that are friendly to Huawei-

Scott Bicheno ([00:55:17](#)):

Oh, I see.

Danielle Royston ([00:55:17](#)):

Yeah.

Scott Bicheno ([00:55:17](#)):

Do you think it has an opportunity there to, to, to compete, or-

Danielle Royston ([00:55:20](00:55:20)):

Well, on the grand scale of clouds, right? I think the reason, when I talk about the hyperscalers, I talk about three guys, right?

Scott Bicheno ([00:55:27](00:55:27)):

Yeah.

Danielle Royston ([00:55:27](00:55:27)):

Amazon, Microsoft and Google, right?

Scott Bicheno ([00:55:30](00:55:30)):

Yeah.

Danielle Royston ([00:55:30](00:55:30)):

Even Alibaba is, even though it's been around for awhile, is significantly behind, and it's behind in that they're more infrastructure providers versus the software component, right?

Scott Bicheno ([00:55:41](00:55:41)):

Right.

Danielle Royston ([00:55:41](00:55:41)):

The databases, the services-

Scott Bicheno ([00:55:43](00:55:43)):

Yep.

Danielle Royston ([00:55:43](00:55:43)):

... the AI, the analytics machine. All, I mean, AWS has 160 servers, uh, services that you can buy a hun- and it's growing every day. Every time, right? It's just they're, they're announcing, announcing.

Scott Bicheno ([00:55:54](00:55:54)):

Yeah.

Danielle Royston ([00:55:54](00:55:54)):

So Alibaba's behind that as is, you know, Oracle and IBM is behind that. And now, Huawei's coming up. They're, they're behind all those guys, right?

Scott Bicheno ([00:56:04](00:56:04)):

Yeah.

Danielle Royston ([00:56:04](00:56:04)):

So your chances of catching up, unless you're all in like AWS and like just building like crazy, I think, I think it's low.

Scott Bicheno ([00:56:11](#)):

Well, that's where you've really got to give respect to Jeff Bezos and, and that, that lad who's taken over now that Jeff Bezos is fucking flying into space the whole time.

Danielle Royston ([00:56:19](#)):

Andy-

Scott Bicheno ([00:56:19](#)):

Jassy.

Danielle Royston ([00:56:20](#)):

Andy Jassy, yeah.

Scott Bicheno ([00:56:21](#)):

(laughs).

Scott Bicheno ([00:56:21](#)):

Jassy, yeah, um, you know-

Danielle Royston ([00:56:22](#)):

Yeah, that's in, in mine, you know, I'm from-

Scott Bicheno ([00:56:22](#)):

He used to be head of AWS, didn't he?

Scott Bicheno ([00:56:25](#)):

No, I know he is.

Danielle Royston ([00:56:25](#)):

Yes, he was. Yeah, Jassy.

Scott Bicheno ([00:56:26](#)):

I know, so that's why I'm, that's why i'm giving him props. You know, I mean, they're, they're ahead of the curve.

Danielle Royston ([00:56:29](#)):

Well, you know, his, uh, his Blue Origin is from, I was born in El Paso, Texas.

Scott Bicheno ([00:56:32](#)):

Right.

Danielle Royston ([00:56:32](#)):
And Blue Origin is like a couple hours away.

Scott Bicheno ([00:56:35](#)):
Right.

Danielle Royston ([00:56:35](#)):
So he flies into and, and stays in El Paso.

Scott Bicheno ([00:56:38](#)):
Yeah.

Scott Bicheno ([00:56:38](#)):
So yeah-

Danielle Royston ([00:56:38](#)):
Yeah.

Scott Bicheno ([00:56:39](#)):
Total respect to, to all these people, you know. While, I [crosstalk 00:56:43].

Scott Bicheno ([00:56:43](#)):
What's he saying?

Danielle Royston ([00:56:43](#)):
Totally.

Scott Bicheno ([00:56:43](#)):
He's singing?

Danielle Royston ([00:56:44](#)):
He's singing Marty Robinson's song [crosstalk 00:56:47].

Iain Morris ([00:56:47](#)):
Yeah.

Scott Bicheno ([00:56:47](#)):
I-I think you should pull the microphone in and use that as your promo for (laughs)-

Iain Morris ([00:56:51](#)):

I should have a little fun. We should have a little one minute, one minute [crosstalk 00:56:51].

Danielle Royston ([00:56:52](underline)):
No, how does it go? It's about I met a girl from El Paso.

Scott Bicheno ([00:56:54](underline)):
Do it.

Iain Morris ([00:56:54](underline)):
Out, out in west Texas the, in a-

Danielle Royston ([00:56:59](underline)):
(singing). I am Mexican.

Scott Bicheno ([00:57:03](underline)):
I've never heard that one.

Danielle Royston ([00:57:03](underline)):
Yeah.

Scott Bicheno ([00:57:04](underline)):
Yes.

Scott Bicheno ([00:57:04](underline)):
That's, that's your roots, Mexican, yeah?

Danielle Royston ([00:57:05](underline)):
I am Mexican. With a name like Royston, it's hard to tell. I'm, my husband is not Mexican (laughs).

Scott Bicheno ([00:57:10](underline)):
I see.

Scott Bicheno ([00:57:10](underline)):
What was your, what was your maiden name?

Danielle Royston ([00:57:12](underline)):
Rios.

Scott Bicheno ([00:57:13](underline)):
Okay, that's very mexican.

Danielle Royston ([00:57:13](underline)):

Yeah, it is, yeah.

Scott Bicheno ([00:57:13](#)):

It means rivers.

Danielle Royston ([00:57:13](#)):

It means, yeah, exa-

Scott Bicheno ([00:57:15](#)):

Danielle Rivers.

Danielle Royston ([00:57:16](#)):

Yeah.

Scott Bicheno ([00:57:16](#)):

Cool.

Danielle Royston ([00:57:17](#)):

Yeah.

Scott Bicheno ([00:57:18](#)):

Um, I'm gonna-

Danielle Royston ([00:57:20](#)):

But you were talking about Jeff Bezos, sorry. I interrupted.

Scott Bicheno ([00:57:21](#)):

Oh, yeah, no, so the only, the only point I wanna make, you know, while, while I'll push back and I'll get twitchy about the size of these people, they're on merit. I mean, Jeff Bezos, Andy Jaffy, is that what you're saying?

Danielle Royston ([00:57:31](#)):

Jassy.

Scott Bicheno ([00:57:32](#)):

Jassy, um, you know, and, and the Google people and the Microsoft people and all these people, you know, I mean, Microsoft's a story by itself. I've been covering 'em since they were still mainly a box software f- company-

Danielle Royston ([00:57:43](#)):

Yeah.

Scott Bicheno ([00:57:44](00:57:44)):

... and so their pivot is pretty substantial.

Scott Bicheno ([00:57:47](00:57:47)):

Hm.

Scott Bicheno ([00:57:47](00:57:47)):

And they've done it all. Once they got rid of nutters like Steve Ballmer, and got this guy Nadella in-

Danielle Royston ([00:57:52](00:57:52)):

Yeah.

Scott Bicheno ([00:57:53](00:57:53)):

... um, they, they've done a great job of it, so Bill Gates can go off and keep saving the world, bless him.

Scott Bicheno ([00:57:58](00:57:58)):

Yeah.

Danielle Royston ([00:57:59](00:57:59)):

I mean, they, I mean, they spent $ 100 billion last year in CapEX, right?

Scott Bicheno ([00:58:04](00:58:04)):

Really?

Danielle Royston ([00:58:04](00:58:04)):

Every time they built a region, it's like, it's, Amazon, it's about three bill-

Scott Bicheno ([00:58:08](00:58:08)):

It's a massive investment.

Danielle Royston ([00:58:08](00:58:08)):

It's $3 billion of investment.

Scott Bicheno ([00:58:11](00:58:11)):

Exactly, so they, they, they deserve it.

Danielle Royston ([00:58:11](00:58:11)):

I mean, it's just insane.

Scott Bicheno ([00:58:11](00:58:11)):

And they deserve it from a consumer point of view. I mean, I buy, I probably spend more money as a consumer on Amazon. Probably the only company I spend more money with than Amazon is fucking Sainsbury's.

Scott Bicheno ([00:58:19](#)):

But the-

Scott Bicheno ([00:58:19](#)):

And that's 'cause that's where my dinner comes from.

Scott Bicheno ([00:58:21](#)):

But that, that's what, that, that's what scares me in way, is that they're so... People used to get scared of oil companies, didn't they, and energy companies a few years ago. Well, more than a few years ago, and now it's, you look at the, the, the ones that have got two trilli- $2 trillion mark market capitalizations-

Danielle Royston ([00:58:36](#)):

Yeah.

Scott Bicheno ([00:58:36](#)):

... at, I mean-

Iain Morris ([00:58:36](#)):

Standard Oil.

Scott Bicheno ([00:58:37](#)):

There's a few of them there on that.

Danielle Royston ([00:58:38](#)):

Yeah.

Scott Bicheno ([00:58:38](#)):

Apple-

Scott Bicheno ([00:58:39](#)):

Yes.

Scott Bicheno ([00:58:39](#)):

I mean, I, Microsoft, I mean, it's-

Danielle Royston ([00:58:40](#)):

It, above the trillion dollars, yeah, yeah.

Scott Bicheno (00:58:42):

And then, you look at the resources they've got and how much they can spend on R&D or whatever it might be-

Scott Bicheno (00:58:46):

Yeah, [crosstalk 00:58:47] sort the market if they want to.

Danielle Royston (00:58:47):

But and you-

Scott Bicheno (00:58:47):

... and I was thinking, "Well, nobody else could really come along and do anything to, to compete."

Danielle Royston (00:58:53):

Yeah.

Scott Bicheno (00:58:53):

It's just too hard for anybody.

Danielle Royston (00:58:53):

Well, I mean, I am fighting for telco to not be a dumb pipe, and I'm fighting for telco to fight off the OTT vendors and the siphoning of R2, um, uh, ARPU. Sorry, my beer's talking now (laughs).

Scott Bicheno (00:59:03):

(laughs).

Danielle Royston (00:59:03):

R2D2.

Scott Bicheno (00:59:03):

R2, think you're getting into Star Wars.

Danielle Royston (00:59:04):

(laughs).

Scott Bicheno (00:59:04):

(laughs).

Danielle Royston (00:59:07):

Of ARPU. I-I believe that we can fight back and we can win, but-

Scott Bicheno (00:59:12):

Well, I think that's a good message-

Danielle Royston (00:59:13):
Yeah, but I think-

Scott Bicheno (00:59:13):
I completely agree with you on that.

Danielle Royston (00:59:14):
Yeah, but you, you gotta start doing things differently, and stand-

Scott Bicheno (00:59:17):
Yes, well, and that's a really good point.

Danielle Royston (00:59:19):
... and go over the top on their investment and limit.

Scott Bicheno (00:59:21):
But this is, I suppose, this is not what we've talked about that much on this discussion is, is if you, you know, if you do take the positive line of the public cloud, and then, what it allows operators to do, we've just been talking about cost. But you do think it would sort of free them up to-

Danielle Royston (00:59:33):
Yeah.

Scott Bicheno (00:59:34):
... to, to actually try and-

Scott Bicheno (00:59:34):
Well, that was your message at the start when you were talking about your, your company is-

Danielle Royston (00:59:37):
Yeah.

Scott Bicheno (00:59:37):
... it's that, that agility to, to bill in a bespoke way-

Danielle Royston (00:59:43):
I mean-

Scott Bicheno (00:59:43):
... to offer in, in [crosstalk 00:59:43]-

Danielle Royston ([00:59:43](#)):

... talk about people who have more data about us, right? You're worried about all the data they have on us as they, as they-

Scott Bicheno ([00:59:47](#)):

Hm.

Danielle Royston ([00:59:47](#)):

Right? The big tech companies. Telcos have a lot of data about you.

Scott Bicheno ([00:59:51](#)):

Yeah.

Danielle Royston ([00:59:51](#)):

You carry your phone with you everywhere you go including the bathroom, right? I mean, i-it, they know what you're looking at, they know where you're driving, and that data is powerful. And we don't use it as tel-

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Danielle Royston ([01:00:03](#)):

And that data is powerful, and we don't use it as Telco.

Scott Bicheno ([01:00:04](#)):

And you've got unique billing relationship as well.

Danielle Royston ([01:00:05](#)):

Right. I mean-

Scott Bicheno ([01:00:06](#)):

So you look at you-

Danielle Royston ([01:00:06](#)):

... Why doesn't Telco-

Scott Bicheno ([01:00:09](#)):

... might have a lot of money in Africa.

Danielle Royston ([01:00:09](#)):

Tel-

Scott Bicheno ([01:00:09](#)):

Transcends the whole banking system, doesn't it?

Danielle Royston (01:00:10):

Absolutely. I mean, Telco y-, you know, has to validate your identity to give you a SIM. You can present a Telco bill to get a mortgage or buy a car, right. It's a trusted thing. Why doesn't Telco own digital identity? Why does Apple have a wallet installed on the phone? Why isn't it a Telco wallet? And so there is opportunity there, and go get it, but you gotta, you gotta give some stuff up. You got to stop focusing on the plumbing-

Scott Bicheno (01:00:37):

Fair enough.

Danielle Royston (01:00:37):

And, to get to these other things. You gotta take the risk on the cloud and use those tools, 'cause they're the best tools out there. And so, that's what I'm fighting for. I'm like, "Let's go win again." And maybe that's my cheerleader nature co out.

Scott Bicheno (01:00:53):

No, and I think, actually, I think, if, if that's all right, you know, I think that's a good point summarize it on. I think you've stated your case very well, and I, I don't have a strong pushback on that particular case.

Iain Morris (01:00:57):

Yeah.

Scott Bicheno (01:00:58):

You know, the, the, the reservations about, you know, big tech being the matrix and all that will always be there, but I think you've made the great point of, um, well, one, what's the alternative?

Iain Morris (01:01:10):

Yeah.

Scott Bicheno (01:01:10):

Uh, and two, I, I, I suppose, you know, it's managing it. It's having service-level agreements. It's having regulations, having something, such that that power is n-, is capped.

Danielle Royston (01:01:21):

Yeah.

Scott Bicheno (01:01:22):

And such that the people who choose to go all in the public cloud have some protection, if that public cloud provider turns capricious as they did with AWS and Parler.

Danielle Royston (01:01:31):

Yeah.

Scott Bicheno (01:01:32):

That will be it. I, I want to squeeze in a couple of other topics in the-

Danielle Royston (01:01:36):

Sure.

Scott Bicheno (01:01:36):

... brief time we have. Um, are you all right?

Iain Morris (01:01:39):

It is very ... It is very brief.

Danielle Royston (01:01:39):

Yeah.

Scott Bicheno (01:01:39):

I am going to shoot off.

Danielle Royston (01:01:39):

No, I'm total-

Scott Bicheno (01:01:40):

Um, it is very brief time. It should be, like, five-

Danielle Royston (01:01:43):

[crosstalk 01:01:43].

Scott Bicheno (01:01:43):

... or so minutes per topic, isn't it?

Danielle Royston (01:01:43):

Yeah.

Scott Bicheno (01:01:44):

What are we saying, Peter? How much time we got?

Peter (01:01:45):

Uh, yeah ...

Iain Morris (01:01:46):

It really is five minutes.

Peter (01:01:47):

Seven minutes per.

Scott Bicheno (01:01:48):

Seven minutes per topic, okay. We can really let our hair down, um, because, because we always have three topics. And I think we should have three this time as well.

Iain Morris (01:01:55):

That's fine.

Danielle Royston (01:01:55):

Squeeze in three.

Scott Bicheno (01:01:56):

So ...

Danielle Royston (01:01:56):

Let's do it.

Scott Bicheno (01:01:57):

But I'll tell you what we'll do. We'll have a strict thing. I'll, um, I'll present it. I'll pass it to Ian, then to Danielle, and then maybe, conclude and move onto the next thing.

Iain Morris (01:02:06):

Yeah.

Scott Bicheno (01:02:06):

So we won't have a too [crosstalk 01:02:08].

Iain Morris (01:02:07):

Okay.

Scott Bicheno (01:02:08):

Be more like debating scientists, like-

Danielle Royston (01:02:09):

Okay, great.

Scott Bicheno (01:02:10):

Okay, so first thing I want to talk about is, I supposed, [inaudible 01:02:13] politics, so that's a nice, easy, concise subject that we can cover in five minutes.

Danielle Royston (01:02:16):

Nice and small.

Iain Morris (01:02:17):

Five minutes.

Scott Bicheno (01:02:19):

[crosstalk 01:02:19]. Um, specifically, I mean, we just touched on it. I think it was breaking when we did the pod last week, but there's been this ongoing case with, um, [inaudible 01:02:28] CFO and daughter of a fan. They're called Meng-

Iain Morris (01:02:31):

[Meng Nguyen Chu 01:02:31].

Scott Bicheno (01:02:32):

I keep, I can't remember it, so it won't stick in my head.

Iain Morris (01:02:34):

It's actually pronounce Meng Wanzhou, I think.

Scott Bicheno (01:02:35):

Meng Wanzhou, okay.

Danielle Royston (01:02:36):

Meng. I, I said Meng.

Iain Morris (01:02:37):

Well, though she's als-, she also has Sabrina as a first name that she uses sometimes.

Scott Bicheno (01:02:40):

Yeah.

Danielle Royston (01:02:40):

Mm-hmm (affirmative).

Scott Bicheno (01:02:41):

But not often. Anyway ...

Iain Morris (01:02:43):

Depends what mood she's in. If she's in a Sabrina [crosstalk 01:02:46].

Danielle Royston (01:02:45):

Call me Sabrina.

Scott Bicheno (01:02:47):

We've all, we've all been in a Sabrina kind of mood from time to time. Um, and, uh, and she'd been held in, uh, under house arrest in Vancouver, in Canada, um, because America wanted to extradite her over this very involved, very complicated case about whether or not, um, [inaudible 01:03:05] had tried to deceive America so that it could do business with Iran, which was, uh-

Iain Morris (01:03:09):

It was about deceiving HSBC banks, specifically.

Scott Bicheno (01:03:11):

Okay. Um, and cut a long story short, after two years, they sort of cut a deal, but the way I characterized it was America kind of threw in the towel.

Iain Morris (01:03:23):

Mm-hmm (affirmative).

Scott Bicheno (01:03:24):

Now, there was this big, long ... they got her to do some confession going, "Yes, I've been a naughty exec, and I shouldn't have done it, and I'll never do it again." But basically, everything America was trying to get initially, they didn't get. IE, she got to fuck off back to Canada. There were no charges. She's on some kind of weird, international law parole, whereby, if she does a similar thing again, which I'm sure she's not gonna do, uh, then they get to have a go at her again, but she's not gonna make-

Iain Morris (01:03:46):

Well, that's ridiculous-

Scott Bicheno (01:03:46):

... that mistake-

Iain Morris (01:03:47):

... 'cause she's in China, so they're not gonna extradite her.

Scott Bicheno (01:03:48):

Yeah.

Iain Morris (01:03:48):

All right.

Scott Bicheno ([01:03:49](01:03:49)):

She's probably just not gonna make the mistake of traveling through anywhere the, like Canada, again.

Iain Morris ([01:03:55](01:03:55)):

Yeah.

Scott Bicheno ([01:03:55](01:03:55)):

Um, and [crosstalk 01:03:56].

Iain Morris ([01:03:56](01:03:56)):

I think that was a face-saving thing.

Scott Bicheno ([01:03:57](01:03:57)):

Yes, I thought it was-

Iain Morris ([01:03:57](01:03:57)):

Yeah.

Scott Bicheno ([01:03:58](01:03:58)):

... face-saving. But the thing is, while I'll happily characterize it as a, an American defeat, I don't think it's necessarily bad. I don't think ... I, I think I might have said "humiliation," but that could be me being a bit hyperbolic in my writeup.

Danielle Royston ([01:04:10](01:04:10)):

Mm-hmm (affirmative).

Scott Bicheno ([01:04:10](01:04:10)):

Um, it might be the minor humiliation, but on the whole, I think it was for the best. Firstly, I don't think the case against her was that great. Secondly, and more importantly, I think it was, it, it feels like a bit of a high watermark for all the [inaudible 01:04:25] that's been going on between the US and China-

Iain Morris ([01:04:27](01:04:27)):

Hm.

Scott Bicheno ([01:04:28](01:04:28)):

Where they've sort of had a ... Presumably, there's been some political chat behind the scenes. They've had a little word. They've gone, "All right, I'll tell you what, we'll, we'll knock it on the head. She can come back." Lo and behold, these two Canadians who were held in captivity in China on, and weren't even charged for 18 months, suddenly got let free, so there's clearly some horse trading going on there. [inaudible 01:04:50] two [inaudible 01:04:50].

Iain Morris ([01:04:50](01:04:50)):

Oh.

Danielle Royston (01:04:51):

Yeah, I know what you're talking about.

Scott Bicheno (01:04:52):

Um, um, but you know, and that's fine. It's all quite cynical. It's not ... It's not the letter of the law. But maybe, this marks a point where we realize, or maybe this is a post-Trump thing, and I'm not as down on Trump as a lot of people are, but he's a bit of a nutter. Maybe this is a post-Trump thing where things have got a bit more rational, a bit more sober, he says, drinking his 6.5% beer.

Danielle Royston (01:05:11):

(laughs)

Scott Bicheno (01:05:13):

Um, and-

Iain Morris (01:05:14):

Clearly.

Scott Bicheno (01:05:15):

... and normal business has resumed, and people are just having a chat.

Iain Morris (01:05:18):

Mm-hmm (affirmative).

Scott Bicheno (01:05:19):

Um, and I'm hoping that that marks a de-escalation. What do you think?

Iain Morris (01:05:23):

Um, I don't think it marks a de-escalation.

Scott Bicheno (01:05:24):

Okay.

Iain Morris (01:05:24):

I just think ... I mean, I don't think you're sending nuclear submarines to Australia when there's a de-escalation in geopolitics. I just think the [crosstalk 01:05:31]-

Scott Bicheno (01:05:30):

Nuclear-powered.

Iain Morris ([01:05:32](01:05:32)):

Yeah, what, what, let, you know, let's look at that, at what it is. I, I mean, I don't see any other signs that Biden is, is relaxing his anti-China thing. I think this is a, very much a one-off. I think the whole Meng case had become a bit of a sideshow in the dispute with [inaudible 01:05:45]. I mean, when it started off, it, it was almost an attempt, I think, to impose the kind of sanctions that, that introduced against [inaudible 01:05:52], which-

Scott Bicheno ([01:05:52](01:05:52)):

Yeah.

Iain Morris ([01:05:52](01:05:52)):

Which was also put on the entity list, if you remember, for-

Scott Bicheno ([01:05:55](01:05:55)):

And they worked. They worked pretty-

Iain Morris ([01:05:55](01:05:55)):

... for doing things in Iran.

Danielle Royston ([01:05:55](01:05:55)):

Yep.

Iain Morris ([01:05:58](01:05:58)):

But war is, but wa-, all that has happened in parallel to the Meng case, I mean, they've done everything they possibly can to, to cripple Huawei right now-

Scott Bicheno ([01:06:04](01:06:04)):

Yes.

Iain Morris ([01:06:04](01:06:04)):

On the Telecom front.

Scott Bicheno ([01:06:06](01:06:06)):

Oh, yeah, no doubt about that.

Iain Morris ([01:06:06](01:06:06)):

And there's not anything they can do. If they tried finding it, it wouldn't pay. So I don't see that any of that's gonna change. Um-

Danielle Royston ([01:06:12](01:06:12)):

Well, like-

Iain Morris (01:06:13):

I just think that her situation was ... the case wasn't good. It was a flimsy case.

Scott Bicheno (01:06:18):

Yeah.

Iain Morris (01:06:18):

I mean, I don't know what they did. L-, but let's be honest, you don't ... transparent companies don't set up front companies that sell equipment to countries like Iran.

Scott Bicheno (01:06:28):

So there's a bit [crosstalk 01:06:29] scam.

Iain Morris (01:06:29):

So th-, so, it, it's clear that it doesn't ... It, it ... For me, the perspective, it doesn't look good, because, because you've always got that in mind. But at the same time, if ... I mean, I went through all the HSBC documents that were released, 'cause they got sent to me, and, and, and the, clearly, staff did know about the relationship.

Scott Bicheno (01:06:44):

Right.

Iain Morris (01:06:45):

So ... And, and, and-

Scott Bicheno (01:06:45):

Was there a smoking gun?

Iain Morris (01:06:47):

W-, h-, I mean, they, those document ... I mean, this is gonna, it, we don't wanna get involved in this, 'cause it's gonna go on for, like, too long [crosstalk 01:06:53].

Scott Bicheno (01:06:53):

Right, right, right, yeah.

Iain Morris (01:06:54):

But those, I mean, it was very-

Scott Bicheno (01:06:55):

I'll stop digging.

Iain Morris (01:06:56):

It was very ambiguous, like, put it like that. I mean, there were clearly emails that showed that staff within HSBC knew that Huawei had a relationship with Skycom. You know, and, and it's just a case of, really, how, how high up the ladder it went. But I just think-

Scott Bicheno (01:07:09):

So they could have-

Iain Morris (01:07:09):

... it was getting to the stage where-

Scott Bicheno (01:07:10):

... they could have stuck with it forever.

Iain Morris (01:07:11):

I just think it was getting to the stage where it was ... it was almost a bad thing for relations between Canada and the US, because it was gonna-

Scott Bicheno (01:07:15):

Yes, no doubt.

Iain Morris (01:07:15):

... It was gonna ... It w-, the Canadian justice system was say-, was probably saying, "Well, there's probably not enough here to extradite her."

Danielle Royston (01:07:20):

Mm-hmm (affirmative), Mm-hmm (affirmative).

Iain Morris (01:07:21):

And then, what's the US gonna do? It's gonna try and lean on it, and I just think the whole thing had become a bit of a sideshow, actually, in the whole ...

Scott Bicheno (01:07:27):

Okay.

Iain Morris (01:07:27):

I, I don't think it will change the direction of travel with China at all. I don't see any easy-off-

Scott Bicheno (01:07:32):

All right.

Iain Morris (01:07:32):

... on, from Biden on that front, at all.

Scott Bicheno (01:07:33):

So-

Danielle Royston (01:07:34):

Yeah, I mean, but, like-

Scott Bicheno (01:07:34):

Carry on.

Danielle Royston (01:07:35):

Yeah, yeah, just one thing, uh, and then we can wrap it up is, I, I think it was a tactic Trump employed often, which is, uh, making perception feel like reality.

Scott Bicheno (01:07:45):

Yeah.

Danielle Royston (01:07:46):

Right. And so-

Scott Bicheno (01:07:46):

Kayfabe, all that stuff.

Danielle Royston (01:07:47):

Yeah, yeah.

Scott Bicheno (01:07:48):

Yeah, yeah.

Danielle Royston (01:07:49):

And so, you know, you know, arrest, lean on Canada, our f-, our friendly neighbor, um, get this favor done.

Scott Bicheno (01:07:58):

Generate bargaining chips. Yeah.

Danielle Royston (01:07:59):

Right. Generate that. But then, like, oh, they're evil. It starts that whole train going. No one knows which, if it's right or not. It takes time to sort out. No one's gonna read all the documents.

Iain Morris (01:08:10):

Yeah.

Danielle Royston (01:08:10):

Like that.

Scott Bicheno (01:08:11):

Except Iain, 'cause he's got no life.

Danielle Royston (01:08:12):

Right. Right. I mean, Telco execs, you know, it creates this little perception, right. And it starts the train moving on, you know, well, we, look, they are evil. Look at this.

Scott Bicheno (01:08:24):

Yeah, yeah.

Danielle Royston (01:08:24):

And it starts it.

Scott Bicheno (01:08:26):

Yeah.

Danielle Royston (01:08:26):

And it's ... it, it's worked. I mean-

Iain Morris (01:08:27):

I think that's a really good point. I think, totally-

Scott Bicheno (01:08:29):

Yeah.

Danielle Royston (01:08:29):

Yeah.

Iain Morris (01:08:29):

PR and, and, exactly.

Danielle Royston (01:08:30):

As a tactic.

Iain Morris (01:08:31):

Exactly.

Scott Bicheno (01:08:32):

Yeah.

Iain Morris (01:08:32):
Completely, yeah.

Scott Bicheno (01:08:32):
I think Danielle's-

Iain Morris (01:08:33):
But, but, but-

Scott Bicheno (01:08:33):
... characterization of Trump's on the nose.

Iain Morris (01:08:34):
But, but now, the, the, the Huawei's, I mean, I wouldn't say is finished, but it's, it's in real trouble-

Scott Bicheno (01:08:40):
[crosstalk 01:08:40].

Iain Morris (01:08:40):
[crosstalk 01:08:40] Telcom.

Danielle Royston (01:08:42):
It's left the station a little bit.

Iain Morris (01:08:42):
I mean, the-

Danielle Royston (01:08:42):
In trying to get that-

Iain Morris (01:08:42):
[crosstalk 01:08:42] they had last week-

Danielle Royston (01:08:43):
Yeah.

Iain Morris (01:08:43):
... with what they were saying is gonna happen with the smartphone business-

Danielle Royston (01:08:45):

Yeah.

Iain Morris (01:08:45):

... was much, much worse than I thought.

Danielle Royston (01:08:47):

Yeah.

Scott Bicheno (01:08:47):

Oh, really?

Danielle Royston (01:08:48):

[crosstalk 01:08:48] they-

Scott Bicheno (01:08:48):

I didn't know that.

Iain Morris (01:08:48):

Yeah, 34-

Scott Bicheno (01:08:49):

Did we talk about that?

Iain Morris (01:08:49):

I wrote about it on Friday.

Scott Bicheno (01:08:52):

All right.

Iain Morris (01:08:52):

But they ... on, or Monday, but they said $50 billion they made last year in smartphone revenues, and Eric Xu said it's gonna go down by $ 30 to $40 billion this year.

Danielle Royston (01:09:01):

Wow.

Scott Bicheno (01:09:02):

Right.

Iain Morris (01:09:02):

That's the decline.

Scott Bicheno (01:09:03):
So, like, 80 to 90%?

Iain Morris (01:09:05):
Yep.

Danielle Royston (01:09:06):
Ouch.

Scott Bicheno (01:09:07):
Go on.

Danielle Royston (01:09:08):
So no, a PR tactic, right. That's, it's a tactic you can use to, like, fight competitors, right?

Scott Bicheno (01:09:13):
Yeah, yeah.

Danielle Royston (01:09:13):
And so, public perception, or what people think and-

Scott Bicheno (01:09:16):
Yeah.

Danielle Royston (01:09:16):
Versus, like, the facts.

Scott Bicheno (01:09:17):
Yeah.

Danielle Royston (01:09:17):
Right.

Scott Bicheno (01:09:18):
Completely.

Iain Morris (01:09:18):
Yeah.

Scott Bicheno (01:09:18):
Yeah.

Danielle Royston (01:09:19):

[crosstalk 01:09:19].

Scott Bicheno (01:09:19):

Yeah, so th-, so that was, that was trumps MO, and, and I just wrote a thing today. There's been some new, um, deal done between the US and the EU that just got announced, and, and I think, um, one of the biggest negatives of the Trump reign was relations between US and its allies. He was actually quite good at setting up, like, chats in the Middle East, hanging out with that nutter in North Korea and all that sort of thing, um, maybe 'cause he recognizes a fellow nutter.

Iain Morris (01:09:49):

Yeah (laughs).

Scott Bicheno (01:09:49):

They just, they just sit. They go bah.

Danielle Royston (01:09:50):

Right.

Scott Bicheno (01:09:51):

Um, but it wasn't-

Iain Morris (01:09:53):

[crosstalk 01:09:53].

Scott Bicheno (01:09:53):

He wasn't so good, he wasn't so good at hanging out with Europe and, and Latin America [crosstalk 01:09:59].

Danielle Royston (01:09:58):

I know.

Scott Bicheno (01:09:59):

Um, my feeling is that there's a high watermark in terms of us facing down China Xi Jingping's obviously got some ideas. Um, and you know, sadly, and I regret this, but you look throughout history. You look throughout history. Most, most of the misery that has happened throughout history, most of the wars has been blokes with big egos deciding to go and beat their fucking chest on the global sca- ... and the only language they understand is other blokes with big egos or collectives, but people who stand up to them, whether it's an individual or collectives.

Scott Bicheno (01:10:32):

And what seems to be going better ... Trump tried his bit. He tried his single bloke with a big ego thing. Biden, for all his many concerns about him, seems to be going for the more collegiate, let's just get a bunch of allies together. Let's hang out with Europe. Let's hang out with UK. Let's hang out with Australia. Let's all get together and put pressure, a more so, smothering, blanketing pressure on China to, to fucking wind its neck in a little bit.

Danielle Royston (01:10:54):

Yeah, yeah, yeah.

Scott Bicheno (01:10:54):

And I think that's probably better.

Danielle Royston (01:10:56):

Yeah.

Scott Bicheno (01:10:56):

Okay. And then, the other thing is, um, hyper-scales as we define them, or, or just super-big US big tech-

Danielle Royston (01:11:06):

Tech, yeah.

Scott Bicheno (01:11:06):

... internet companies getting into consumer devices. Um, I don't know if we spoke about it last week. We might have touched on it, but Facebook did this big thing on the metaverse. And the metaverse is basically, how Facebook [inaudible 01:11:19] ... It's not just a Facebook term, but Facebook seems to be the biggest evangelist.

Iain Morris (01:11:23):

Is it a DC Comics term as well?

Scott Bicheno (01:11:24):

You'd think so, wouldn't you?

Iain Morris (01:11:25):

Is it ... isn't [crosstalk 01:11:26].

Scott Bicheno (01:11:26):

I might actually be a hero.

Iain Morris (01:11:27):

People at Wonder Woman.

Scott Bicheno (01:11:28):

Like some Thanos type of mother fucker. Anyway, um, metaverse is, it's like taking VR, virtual reality and augmented reality and, and another term, extended reality, XR, uh, into a, a more coherent, more all-encompassing, Matrix-y type of thing. You know, you know, the basic plot of The Matrix where you're actually not ... You're in a virtual world the whole time. You just don't even know you are until your red pill.

Danielle Royston (01:11:53):

You live in that.

Iain Morris (01:11:54):

Yeah.

Scott Bicheno (01:11:55):

Until your red pill.

Danielle Royston (01:11:55):

You live in that world. That's the metaverse.

Scott Bicheno (01:11:56):

Exactly.

Iain Morris (01:11:57):

[crosstalk 01:11:57].

Danielle Royston (01:11:57):

Right. You can design your avatar. Like, it's like The Matrix.

Iain Morris (01:12:00):

Yeah.

Danielle Royston (01:12:00):

Right. I look like Trinity, which, PS, would be my avatar, 'cause she's a badass.

Iain Morris (01:12:04):

Yeah.

Scott Bicheno (01:12:04):

Yeah.

Danielle Royston (01:12:04):

Right? She walks around in leather all the time.

Iain Morris (01:12:07):

I might do that as well. We might have to fight over Trinity.

Danielle Royston (01:12:07):

(laughs)

Scott Bicheno (01:12:07):

(laughs)

Iain Morris (01:12:11):

Um, no, I think I'll be, uh, I think I'll be Laurence Fishburne. He looks pretty badass.

Danielle Royston (01:12:15):

He's cool. Morpheus. Morpheus.

Iain Morris (01:12:16):

Um, but, um ...

Scott Bicheno (01:12:19):

[crosstalk 01:12:19]?

Iain Morris (01:12:20):

[crosstalk 01:12:20].

Scott Bicheno (01:12:20):

[inaudible 01:12:20], Christmas.

Iain Morris (01:12:22):

Um, and they've still got Keanu Reeves. He's still, to be [inaudible 01:12:25], does look good. He's like-

Danielle Royston (01:12:26):

He's awesome.

Iain Morris (01:12:26):

[crosstalk 01:12:26].

Scott Bicheno (01:12:26):

[crosstalk 01:12:26]. He doesn't age.

Iain Morris (01:12:27):

Even though he's getting on a bit.

Danielle Royston ([01:12:28](01:12:28)):

John Wick, I like him as John Wick too.

Scott Bicheno ([01:12:30](01:12:30)):

Yeah, yeah.

Iain Morris ([01:12:30](01:12:30)):

He's got a funny beard and long hair.

Danielle Royston ([01:12:31](01:12:31)):

Yeah.

Iain Morris ([01:12:32](01:12:32)):

So ...

Scott Bicheno ([01:12:32](01:12:32)):

Well, that's his, sort of, Bill and Ted thing, like, "Dude."

Iain Morris ([01:12:34](01:12:34)):

That's his John Wick character, pretty much.

Danielle Royston ([01:12:35](01:12:35)):

Yeah.

Iain Morris ([01:12:36](01:12:36)):

Yeah. I'd just like to see a whole film where Keanu Reeves just went, "Dude."

Scott Bicheno ([01:12:41](01:12:41)):

"Dude."

Iain Morris ([01:12:41](01:12:41)):

Um-

Danielle Royston ([01:12:41](01:12:41)):

There's a YouTube video.

Iain Morris ([01:12:43](01:12:43)):

That's the only line it had.

Danielle Royston ([01:12:43](01:12:43)):

Well, you guys should put it in your show notes. There is a YouTube video with him saying, "Dude" a bajillion different ways.

Iain Morris (01:12:48):
Yeah, yeah.

Danielle Royston (01:12:48):
Dude, well, like with different intonations, like-

Scott Bicheno (01:12:48):
No one, no one says-

Danielle Royston (01:12:48):
... Dude, with a question mark.

Scott Bicheno (01:12:52):
Yeah, yeah.

Iain Morris (01:12:53):
Dude.

Danielle Royston (01:12:53):
Dude.

Scott Bicheno (01:12:53):
It's like a [crosstalk 01:12:54].

Iain Morris (01:12:54):
[crosstalk 01:12:54] Keanu Reeves.

Danielle Royston (01:12:56):
[crosstalk 01:12:56]

Scott Bicheno (01:12:56):
Wow.

Iain Morris (01:12:56):
Um, but, um, so they ... So Facebook was, last week, banging out on metaverse and then launching all this product. So they obviously bought a company called Oculus a little while ago, and they're really into these, um, VR headsets. And, and, and they sort of put up a bloke. It was Nick [inaudible 01:13:11], keeps rolling the dice.

Scott Bicheno (01:13:12):

Hm.

Iain Morris (01:13:12):

He can't help himself, um, about how we're gonna play nice, and, and we're gonna be good, and, and everyone, basically, you know, even the US tech press that I think often can be a bit too sycophantic to big tech was just like, yeah, right. But they weren't, they weren't having it at all. And then, this week, we've had Amazon, um, uh, launch this robot called Astro.

Scott Bicheno (01:13:34):

Yeah, he looks rubbish.

Iain Morris (01:13:35):

Yeah, which is, like, a little-

Scott Bicheno (01:13:36):

That's so sad.

Iain Morris (01:13:36):

Which is basically like a little tablet on wheels that follows you around the house, trying to be helpful.

Scott Bicheno (01:13:40):

It looks like something you play-

Iain Morris (01:13:43):

[crosstalk 01:13:43] fuck off.

Scott Bicheno (01:13:43):

...[crosstalk 01:13:43].

Iain Morris (01:13:43):

Yeah, what?

Scott Bicheno (01:13:44):

It looks like something that Clive Sinclair would have come up with in the 1980s.

Iain Morris (01:13:48):

It's a bit ... It's a bit clunky, and it still costs a grand in, in dollars.

Scott Bicheno (01:13:49):

Oh, wow.

Iain Morris ([01:13:51](01:13:51)):

Anyway, and so, as, uh, in, in the in-, interest of time, that, that's my introduction, uh, to you first, Iain, what do you feel about, sort of, big tech getting more and more involved in, sort of, consumer tech, consumer hardware, our daily lives, that sort of thing?

Scott Bicheno ([01:14:05](01:14:05)):

I t-, I mean, they already are, aren't they? You know, it's-

Iain Morris ([01:14:07](01:14:07)):

Well, more ... It's relative, isn't it?

Scott Bicheno ([01:14:09](01:14:09)):

Yeah. I, I, I mean, this brings it back to the public cloud issue, I suppose, which is why-

Iain Morris ([01:14:15](01:14:15)):

It does a bit ... It's a bit full circle.

Danielle Royston ([01:14:16](01:14:16)):

Yeah, totally.

Scott Bicheno ([01:14:17](01:14:17)):

It, it, it, it's, um, you know, I, I think it's a concern if you have companies that straddle numerous sectors and that have a powerful position in all of them, because then you don't have ... You potentially have monopolies across numerous sectors of the economy, and there's just a huge distortion of, of control, I think, and power. And that will be, I mean, that, to me, the, the, the clearest example at the moment, I would say, is a company like Amazon, which has a, a huge presence in everybody's lives, I think, from the moment they wake up to the moment you go to bed, and is a huge force in, on the organizational side and the government side as well, with AWS.

Scott Bicheno ([01:14:52](01:14:52)):

And, and it's, and I don't deny that it's brilliant at what it does. I, I r-, it really is.

Scott Bicheno ([01:14:57](01:14:57)):

Hm.

Scott Bicheno ([01:14:57](01:14:57)):

And then, may ... I mean, I'm a customer of Amazon.

Scott Bicheno ([01:14:59](01:14:59)):

And there's probably [crosstalk 01:15:00].

Danielle Royston ([01:14:59](01:14:59)):

Oh, yeah.

Scott Bicheno ([01:15:01](#)):

[crosstalk 01:15:01] all the time.

Scott Bicheno ([01:15:01](#)):

And it's got where it has a merit. That's the thing.

Scott Bicheno ([01:15:02](#)):

And so, it's almost hypocritical to be saying it, because I think its products are absolutely amazing, but, but the abil-, the flip side of the coin for me is just that, you know, who comes along and does something about that. Who can possibly challenge a, a company in that position in the future.

Scott Bicheno ([01:15:15](#)):

Okay.

Scott Bicheno ([01:15:15](#)):

It's almost like that film, you know, Ali-, Aliens, when they're s-, in the boardroom at the start of the film, you know, and when Ripley's been brought back from-

Scott Bicheno ([01:15:22](#)):

Right.

Scott Bicheno ([01:15:23](#)):

... from sort of a deep sleep, and she's ... and it's, it's the company, isn't it?

Scott Bicheno ([01:15:27](#)):

Yeah, yeah.

Scott Bicheno ([01:15:27](#)):

Company wants [inaudible 01:15:28].

Danielle Royston ([01:15:27](#)):

Yeah.

Scott Bicheno ([01:15:28](#)):

It always makes me think of-

Scott Bicheno ([01:15:29](#)):

Wheeling in the streets, yeah.

Scott Bicheno ([01:15:30](#)):

... any kind of, yeah, uh, in a sinister way of-

Scott Bicheno (01:15:32):
Yeah, not-

Scott Bicheno (01:15:33):
That's Prometheus, isn't it? Yeah.

Scott Bicheno (01:15:34):
No, but I think it's the same company.

Scott Bicheno (01:15:36):
It's, it's the same company, yeah.

Scott Bicheno (01:15:36):
But it's a recurring thing, uh, in other science fictions-

Scott Bicheno (01:15:39):
It is.

Scott Bicheno (01:15:39):
Like Robo Cop or, or Starship Troopers.

Scott Bicheno (01:15:41):
Or [crosstalk 01:15:42].

Scott Bicheno (01:15:41):
You've always got this-

Scott Bicheno (01:15:42):
It's the man.

Iain Morris (01:15:43):
This one private sector-

Scott Bicheno (01:15:45):
Yeah, yeah.

Iain Morris (01:15:45):
Player that, that, the-

Danielle Royston (01:15:45):

I mean, it's in Wall-E, right? It's-

Scott Bicheno (01:15:47):
It's in Wall-E, yes.

Danielle Royston (01:15:47):
... you know, big and-

Iain Morris (01:15:47):
That's true.

Danielle Royston (01:15:48):
... big and large, small and large.

Scott Bicheno (01:15:50):
Yeah, yeah, yeah.

Danielle Royston (01:15:50):
I forget the name of the corporation.

Scott Bicheno (01:15:52):
Wall-E, Wall-E's a great film for a kids' film.

Danielle Royston (01:15:54):
It's-

Scott Bicheno (01:15:54):
That's amazing.

Danielle Royston (01:15:55):
Oh, it's beautiful.

Scott Bicheno (01:15:56):
Yeah, [inaudible 01:15:56].

Danielle Royston (01:15:56):
Yeah.

Scott Bicheno (01:15:56):
So, fin-, final word to you, Danielle, on the, on the bit tech sort of getting more involved in, in, in more of the consumer side.

Danielle Royston ([01:16:04](#)):

Yeah. Well, you know, again, bringing back to what I said, I'm fighting for Telco to win, and then, you know, I think people are always wondering what the big, 5G killer use case is gonna monetize the net worth. That's our big problem. How are we gonna monetize the biggest CapEx? 90% of the CapEx is o-, spent on the network, and the metaverse is a huge opportunity for Telco to do that.

Scott Bicheno ([01:16:24](#)):

Yeah.

Danielle Royston ([01:16:25](#)):

Right. For the metaverse to work, right, ignoring all the paranoia of them, like, monitoring, and the, [Ashter 01:16:31] the dog following him everywhere. Let's just assume you can get over that for two seconds.

Scott Bicheno ([01:16:34](#)):

I'll try.

Danielle Royston ([01:16:34](#)):

Right. The network is a super-important key thing to make, making that whole thing work, right. You need bandwidth. You need low, super low-latency, right, for it to be real.

Scott Bicheno ([01:16:47](#)):

Yeah. Certainly for-

Danielle Royston ([01:16:47](#)):

Right.

Scott Bicheno ([01:16:47](#)):

... for ... Certainly for streaming VR.

Danielle Royston ([01:16:47](#)):

You need res-, you need resiliency.

Scott Bicheno ([01:16:51](#)):

Doesn't work without that.

Danielle Royston ([01:16:52](#)):

This is the fucking three things we all talk about all the time. And so, Telco should be like-

Scott Bicheno ([01:16:56](#)):

Right in there.

Danielle Royston (01:16:57):

Fuck yeah, metaverse. I'm gonna build tools like crazy for this to go, right?

Scott Bicheno (01:17:02):

Okay, so how good a job are they doing?

Danielle Royston (01:17:03):

We should ... do you hear about them talking about the metaverse?

Scott Bicheno (01:17:06):

Not much.

Danielle Royston (01:17:06):

Not at all. And I'm like, let's start with work tools. We just went through lockdown on stupid, I mean, Zoom. It was the best tool out there. Surely we can make that better.

Scott Bicheno (01:17:16):

It's not the ultimate, is it?

Iain Morris (01:17:16):

It's not great, Zoom, I don't think.

Danielle Royston (01:17:16):

It's not.

Iain Morris (01:17:16):

Uh-

Danielle Royston (01:17:20):

It's ... I mean, it's ... it works.

Iain Morris (01:17:21):

Yeah, it works.

Scott Bicheno (01:17:21):

Yeah, it was in the right place at the right time, yeah.

Danielle Royston (01:17:22):

I mean, our bar is so low.

Scott Bicheno (01:17:24):

Yeah.

Danielle Royston (01:17:24):

I have, like, a great feature I wanna add to Zoom, maybe for-

Iain Morris (01:17:27):

It worked when we did our c-, cooking thing.

Danielle Royston (01:17:30):

Oh, barely. But yes, I mean, right, like, how much better could that have been-

Scott Bicheno (01:17:34):

Yeah.

Danielle Royston (01:17:34):

... the pandemic? We would not have felt as lonely.

Scott Bicheno (01:17:36):

Wait, wait, what is that feature?

Danielle Royston (01:17:38):

Uh, the, oh, my great idea for Zoom?

Scott Bicheno (01:17:40):

Yeah.

Danielle Royston (01:17:41):

Which is on May the 4th, which is Star Wars day, may, may the fourth be with you. Right, it's like, "May the force be with you."

Iain Morris (01:17:47):

Oh, you'd definitely get with Mary, 'cause she's mad about Star Wars.

Danielle Royston (01:17:50):

I love Star Wars.

Iain Morris (01:17:51):

All right.

Danielle Royston (01:17:52):

I dressed up as Princess Leia as a kid, and when Then Phantom Menace came out. I was like, I went to the thing.

Scott Bicheno ([01:17:58](#)):

You, you did the fully Monty.

Danielle Royston ([01:17:58](#)):

I was, like, full-on buns-

Scott Bicheno ([01:17:59](#)):

Excellent.

Danielle Royston ([01:17:59](#)):

Not the golden bikini.

Scott Bicheno ([01:18:00](#)):

Okay.

Danielle Royston ([01:18:01](#)):

But I did the buns.

Scott Bicheno ([01:18:02](#)):

I'll, I'll get that image out now.

Danielle Royston ([01:18:03](#)):

But I'm like, like ... But like, when, um, when people are late to a Zoom call, they should ... it should be like, you know, like, Holodeck. That's Star Wars, but ... I mean Star Trek.

Scott Bicheno ([01:18:14](#)):

Yeah.

Danielle Royston ([01:18:14](#)):

But, like, coming ... It would be so cool. Like, you could do so many cool things with Zoom and-

Scott Bicheno ([01:18:19](#)):

Animation Zoom.

Danielle Royston ([01:18:19](#)):

Right, like, just-

Scott Bicheno ([01:18:20](#)):

Yeah, hm.

Danielle Royston ([01:18:20](#)):

... cool, psh, psh, psh. And now we have, like, the big thing was, like, blurred backgrounds or, like, funky backgrounds.

Scott Bicheno ([01:18:26](#)):
Yes, yeah.

Danielle Royston ([01:18:26](#)):
Right. And I think, Telco's right in the heart of this.

Scott Bicheno ([01:18:29](#)):
Right.

Danielle Royston ([01:18:29](#)):
Just lean into it.

Iain Morris ([01:18:30](#)):
Do better.

Danielle Royston ([01:18:30](#)):
You guys are looking. Yeah.

Iain Morris ([01:18:32](#)):
So, so, so, to wrap it up, unless you got anything else-

Danielle Royston ([01:18:35](#)):
No.

Iain Morris ([01:18:35](#)):
... to add-

Danielle Royston ([01:18:36](#)):
That was my big idea.

Iain Morris ([01:18:37](#)):
... so I know we're, we're [inaudible 01:18:37] out of time. I think, you know, we know that we've still got some residual adversarial stuff on, on the matter of these big companies having so much power, but I think ... I only speak for myself, but I suspect to speak for you, that on the matter of Telco's doing a better job of getting involved in all this emerging stuff, the service has been more in the dumb pipe. I think, I think we all-

Scott Bicheno ([01:19:00](#)):
Yeah, I agree with that.

Iain Morris (01:19:01):

... agree with that.

Danielle Royston (01:19:01):

I mean, I think we all stay in business if they win. So-

Scott Bicheno (01:19:04):

Yes.

Scott Bicheno (01:19:04):

Well, that-

Danielle Royston (01:19:04):

We want them to win.

Scott Bicheno (01:19:05):

That would be nice, as well.

Danielle Royston (01:19:05):

Right, right.

Scott Bicheno (01:19:05):

Yeah, yeah.

Danielle Royston (01:19:06):

We could write about them, and, and they need to start jumping on these ideas, and participating, and, and I think I see a lot of executives kind of whining about how regulated they are. I'm like, "You can participate in the metaverse. You can build applications, and" right, but you gotta get ... I mean, to build the metaverse out, I think you do need to use the hyper-scaler's capability. Right. You need to-

Scott Bicheno (01:19:28):

Yeah.

Danielle Royston (01:19:28):

Right. And so, you got-

Scott Bicheno (01:19:28):

But it's not either, or.

Danielle Royston (01:19:30):

And you can't start with the metaverse. You got to start with the stupid, dumb, lame IT application, and you gotta hire a guy, and you gotta start learning about it, so get going.

Scott Bicheno (01:19:40):

Cool.

Danielle Royston (01:19:41):

Sweet.

Iain Morris (01:19:41):

Great note on which to end. Thank you very much, Danielle. It's been a pleasure.

Danielle Royston (01:19:44):

Super-fun.

Iain Morris (01:19:46):

Cheers.

Danielle Royston (01:19:46):

I had a blast. Thank you.

Iain Morris (01:19:47):

Excellent. Okay, well, I'll wrap it up there. Thanks a lot for watching, and make sure you join us for the next one.

PART 4 OF 4 ENDS [01:19:52]