

Thinking Holistically About Data

Data consultant Daragh O'Brien sees the connectedness in all things, especially data.

- Michelle Dennedy: Cybersecurity, data protection, privacy. You like to stay ahead of the curve and listen to experts who are leading the way and deriving greater value from data with a more organized approach to data privacy. You're like us, just a few deviations past the norm. You are a Privacy Sigma Rider.
- Michelle Dennedy: So this is a special and impromptu Privacy Sigma Riders. We have the lovely, warm, and talented Daragh O'Brien here with us today.
- Daragh O'Brien: Hello, everybody.
- Michelle Dennedy: And I've bamboozled, once again, Robert Waitman to join us to talk about some cool stuff.
- Robert Waitman: It's always fun to be here, once again, from Cisco Live in Barcelona.
- Michelle Dennedy: Woohoo. Live. We in Spain today, people. We're gonna talk about a bunch of things mostly because we just got lucky and all ended up in the same place at the same time, which always makes for better conversation. But what I really want to get to is, Daragh, maybe you could kick us off a little bit. Tell us a little bit about your training and background and your relationship to data and your really multiple companies right now.
- Daragh O'Brien: Yeah. Well, multiple things we're involved in. I kind of have been involved in programming and stuff since I was about seven years old. I taught myself the program on a Sinclair ZX 48K computer, tiny thing. That's when I learned about the importance of backups. My father unplugged the machine when I'd just finished coding a game and hadn't saved anything. But I wound up in university doing an interfaculty degree in business and law, which was, looking back on it, an absolute wonderful Swiss Army knife experience, because it gave me views on both the legal and regulatory side of things and the business side of things.
- Michelle Dennedy: See why I wanted you here, Robert?
- Robert Waitman: Yes.
- Daragh O'Brien: But even within that, even during that period, I was also the guy who was going, "Yeah, this computer stuff is going to be important." It's a little bit more important than just doing a graph in Excel. In fact, one of my first businesses was actually gussying up SPSS datasets for psychology students into shiny colored graphs for their final term papers, because I could drive Excel, and they didn't know how to spell Excel. I went to work in a phone company for 12 years. I was head of the signal view customer program. I think I got that job because they asked for a volunteer and I bent down to tie my shoelaces and everybody else had stepped back. During that period, I became a pioneer in the field of data quality, I was at Informatic, well, Similarity Systems as they were then, subsequently bought by Informatic. I was the first customer for their data quality tool, in the world.

- Michelle Dennedy: So let's slow down just a moment here because when I first met Daragh, it was actually with my dad. We'd been hanging out with Bob Steiner and the gang, and Tony Shaw in data quality-ville.
- Daragh O'Brien: Yeah, Rob and Tom, and that's how I kind of, I'd always been interested in data, previously being European and having a name that you can spell 13 different ways and is gender neutral in every language that it appears in.
- Michelle Dennedy: It's true.
- Daragh O'Brien: I kind of got obsessed with the importance of accuracy of data and I understood the import, the value of how people feel when their data is misused or abused. So that means the data quality world, then I moved into regulatory and it turned out, "Oh, hang on a sec. All the same stuff I'm doing from a quality perspective can be applied to other aspects of regulatory, we just have to unpick the rules." And then my lawyer brain woke up and went, "You might be able to make some money out of this, my boy." And I went, "No, I'll keep working here in the phone company for another few years."
- And then eventually I left during a recession and set up Castlebridge in 2009. We were set up to change how people think about data because people tend to think it's systems and technology. I'm sitting here surrounded by techies and I'm feeling like I need to know where the exits are. I'm twitching 'cause I used to crawl around under tables in the phone company wiring call centers and putting the networks in way back in my earlier days in the phone company.
- But setting up with Castlebridge, we basically look at the overlap, between all things that... it's my birthday and I'm a big fan of The Hitchhiker's Guide to the Galaxy and Dirk Gently's Holistic Detective Agency. I'm a holistic data consultant, I see the connectedness in all things, as do all of my team. Privacy overlaps governance overlaps equality overlaps strategy. We try and help people figure that stuff out. Which means you do some cool stuff.
- We work with some phenomenally innovative companies who are innovating in the privacy space: a company called Medxnote, medxnote.com. They're a secure medical messaging app, where... that was founded by a guy, his former radiologist, radiographer, who got really concerned when he saw his medical colleagues sending messages containing patient data through WhatsApp. Sending photographs of patient injuries, wound sites etc. through WhatsApp. And he went, "This is not a good idea."
- Michelle Dennedy: So I wanna bring Robert into the discussion as well.
- Daragh O'Brien: So what's your thing, Robert?
- Robert Waitman: What am I thinking? Well I—
- Michelle Dennedy: He's like, oh my god, I can't talk that much.
- Robert Waitman: Well, we're going on all these interesting tangents to begin with. But I wanna talk about the data piece of this, where you've been touching and having business uses for data, I'm particularly interested in where you actually see the value, aside from all the regulatory aspects of it, we're

very interested in, how do we make money at this, I mean, how should organizations be thinking about what data they have, what's most valuable and how should they value the things they probably never valued before.

Daragh O'Brien: Well, some of the simple ways where, in terms of working with data, I've seen organizations be able to derive value. When we were running regulatory stuff in the phone company, when we have to look at processes, we found lots of processes where data was being moved from one end of the chain to another end, other end of the chain. And then was being moved back again and just going in a loop. There was no actual value being added. People were just doing the thing because they'd always done it that way. We all-

Michelle Dennedy: That's my most hated phrase, we always done it that way.

Daragh O'Brien: We also looked at the physical storage of data and what should it cost to have filing cabinets. Nope, digitize the data but what do you still need to keep?

Robert Waitman: Have you been able to get people to get rid of data that they have?

Daragh O'Brien: Yeah.

Robert Waitman: How do you do that? We struggle with that.

Daragh O'Brien: One of the interesting things is the GDPR changes the terminology slightly. Instead of talking about data retention, we talk about storage limitation. I like neuro-linguistic programming, and I love words and the power of words and when you tell someone data retention, it's like saying, don't think of an orange. Straight away, I wanna keep my data, you become Gollum, it's my precious.

You say data, you say storage limitation, it's a finite resource, finite amount of space I have to keep this stuff. What do I need?

When working with clients that's what we get to is we get them to understand their processes, understand what's driving the value in their business. And we say, all that stuff you have over there, you don't need that, it's weighing you down.

Michelle Dennedy: It's the weighing you down part I think that there needs to be a wake-up call because so many of us were in the tech business in particular but so many other businesses in practice have been told that storage is cheap and getting cheaper because you don't need paper, you don't need filing cabinets, you don't need warehouse space. Now it's cheap, it's free, it's wonderful.

Daragh O'Brien: Storage is cheap but finding it once you've stored it becomes incredibly expensive unless you've planned how you're storing it [crosstalk] morbidly obese data. If you don't have a plan—

Michelle Dennedy: Our data's been eating Big Macs all day long.

Daragh O'Brien: If you don't have a plan for... My daughter, I love my daughter to pieces, she's delicious, and delightful and wonderful, but her playroom at home. Once a year we have a clear-out. She's in

the habit now of every year, she clears out her toys to make room for the next batch of toys she's going to get from Santa Claus or at her birthday. Because she's learned that, you have a finite amount of space to store things and you have to know where you're gonna store things, you gotta have a plan for that. 'Cause if you don't know where you're planning it, if you don't have a plan for where you're storing stuff, when you need to go looking for it you won't be able to find it. 'Cause she's looked in her daddy's office and she's seen what happens when you don't have a plan for where you're filing stuff.

Robert Waitman: So it sounds like it's a prioritization exercise.

Daragh O'Brien: It's a prioritization exercise, it's a planning exercise, it's about understanding what do you need to execute on what your objectives are today, but also thinking about what you will need to have to enable you to do things tomorrow. So it's about looking at what the opportunity space is as well.

Robert Waitman: But isn't one of the problems, companies will just keep data because they don't know what they might need in the future?

Daragh O'Brien: Yeah. And that's a challenge. That's a mindset shift in terms of "I might need it in the future." Okay. Have you needed it in the last nine months? No. Have you needed it in the last 12 months?

We did some work with a telecoms company a few years ago where, we were doing a data privacy audit, and the parallel, they had a team in looking at their CRM system and billing system which was about to fall over because, I think the technical term was: it was full. As in, they literally had run out of storage. And they were a few weeks away from the entire system falling over. So they were looking at a program to spend lots of money to get new storage and re-index and whole host of things. We said, let's just have a quick look and see how much data you have in there that's old: ceased accounts, accounts that no longer have any chance of reclaiming the billing and chasing outstanding debts. And we talked to their fraud department who said, who insisted they had to have all the data forever, and we asked them to do some analytics. How far back had they ever had to go in a fraud investigation? They had 16 years' worth of data, they had gone back nine months. We gave them 12. We freed up a massive amount of space in the CRM and billing systems, the company avoided a multimillion euro investment in technology (I had to whisper that because of where I am), but the client was happy.

Michelle Dennedy: So, there's something that kind of has been itching the back of my mind, and Robert didn't realize he was joining us and actually, Daragh didn't know he was podcasting until this morning.

Daragh O'Brien: I was press-ganged. I was walking past and Michelle hit me on the head with a club and dragged me in.

Michelle Dennedy: It's true. And, for your birthday though. One lump or two is usually what I ask. But both of you have degrees in business and law, and I'm wondering...

I know, really, misspent youths, all of us. What do you think about, when you talk to these clients, when you talk to other business people, when you look at what's happening in technology and regulation and in business together, what are the skills that today's people need to have, should be acquiring, should be continuously curious about? What has been useful to you guys and what do you think is missing?

Daragh O'Brien: Robert.

Michelle Denny: I'm the queen of really complex, multilayered questions.

Robert Waitman: Oh, you don't want to start this one.

Daragh O'Brien: Reading. Latterly in other fields. One of my, my first hire has a PhD in Anglo-Irish literature. We have one computer scientist working for us at the moment. We have a former journalist and nonpracticing solicitor working for us. So we've got different, multifaceted skills. With that aspect of, being able to follow the thread of a story, either reading latterly and taking in other skills, other disciplines or just, when someone tells you something, being able to peel back to find out why. What's the driver, what's the motivation? If someone says, "I need to have this data," why?

Michelle Denny: You sound like as much as an investigative reporter as an economist as an artist.

Robert Waitman: I agree. I think [inaudible] something different, but it's probably the same idea, which is people that are just curious about the way things work and the way things are cinched together often. Again, it's not necessarily one focus, I only do this area or I only do this silo, but tell me how this works, tell me what makes this meaningful. Is probably the most useful skill that you could have.

Daragh O'Brien: Yeah.

Michelle Denny: Something else in these fields that has a commonality that I think you might be a wee bit interested in, which is ethics.

Daragh O'Brien: Ethics, yes, that small village just to the southeast of London. Or at least, that's how most computer science courses teach it. But it underpins everything, if you look at economics. Economics, the dismal science, Adam Smith, pioneer, but Adam Smith learned from ethical philosophers. So the basis of modern economics is ethics, basis of law is ethics 'cause lawyers exist when ethics goes out the window. My macroeconomics lecture described...

Michelle Denny: Wait, say that again, slow down.

Daragh O'Brien: Lawyers step in when ethics go out the window. Because, if you're doing the right thing, if you're trying to maximize value to society as a whole, usually you are not breaking any law. If you're looking for a maximalist view on everything. The legal system is the ultimate consequentialist ethical framework. Something has been defined as being not acceptable; there is a sanction. If you get caught, bad things happen to you. My macroeconomics lecture described the legal system as the stick with a nail in it that was in the invisible hands that Adam Smith described. So

the invisible hand guides the market, the stick with a nail in it is the legal system to make sure you get back in line when you're not doing what you're supposed to do.

Robert Waitman: Maybe this explains why we have so many nonpracticing attorneys doing what we do.

Michelle Dennedy: Yeah, exactly.

Daragh O'Brien: Yeah, well... I find interesting... I never actually went on to qualify as a full lawyer in Ireland. I was running technology projects in the phone company, I was earning too much money. But now I go and teach lawyers how to understand this world, and it horrifies me how few lawyers actually understand data.

Michelle Dennedy: Well, you know what really horrifies me, to make it even worse, how few technologists understand data, the very thing that you would think is our kind of main ingredient and main objective to every single thing that technology is supposed to do. And more and more technologists have been so focused on features that they forget functionality.

Robert Waitman: So we're talking more about data and some of the operational costs that you can save by getting rid of stuff that you have. Other areas that you've seen, where you've unlocked value of data? We certainly see, there's an awful lot of data around that people don't necessarily understand the value of what they already have and how it might be useful. Any examples and stories?

Daragh O'Brien: Trying to think of an example without disclosing anything from any of our consulting clients. It's more a case of, by cataloging and taking the effort, one of the things we're seeing from GDPR work is the exercise of going and cataloging where you've got your personal data. Means people are going, "Oh. There's a process there that has data about people that we didn't know about. What's the value there?" They're also identifying that what was considered the byproduct of a process is actually something very valuable to them in that process. So it's not so much that the data is suddenly being used for something new, it's that people are more aware of the value of it to them and they're taking steps to look out how they're gonna optimize the efficiency of the process, they're looking at alternate ways of doing the process in a way that adds value.

Daragh O'Brien: Good example is: retail client who have replaced notebooks. The customers come in to inquire about a particular item, if you wanted a particular handbag in a particular color and they didn't have it, or a particular pair of shoes they didn't have, you would ask and they'd write it down in a notebook and then they'd phone you when they got it in stock. They looked at that process and they went, "Hang on a second. We have a notebook full of customer information, and it's on the shop floor and we have no control over it. But also, we have no way of tracking what customers are asking us for."

So they've introduced a two-part docket book. The docket book has 60 dockets in it, they're signed in and out of the cash office by the people on the tills every day. And when a customer makes a request, they write the request on one side and they write the customer's data on the other side, the contact information. When the customer comes back in, whether they've got the item or not, they tear the customer's information out of the docket book and hand it back to them. 'Cause they don't need that anymore. What they do have, on the bit that they're retaining, is a physical record of the requests customers have made for special order items,

something that they couldn't track before now. It's not automated, it's not fancy, no one built an app. They went and got docket books printed, that are signed in and signed out so they're controlled and they're now actually in a position where over the next while they're gonna start looking at capturing that data and doing some analytics on what customers ask for as special order items.

Michelle Dennedy: I love it, it's kind of like a custom-bespoke data transaction for the customer. I couldn't help but feel, especially if you said, "Okay, well, sorry we couldn't get you your thing. Here's your contacts and let us know when you need something else."

Daragh O'Brien: The feedback from the client's customers was they loved getting the docket back with their details.

Michelle Dennedy: It's very comforting.

Daragh O'Brien: It's comforting. It's not gonna get lost.

Michelle Dennedy: Of course, they're putting their jeans pocket and dropping it at a coffee shop, but that's a totally different story.

Daragh O'Brien: This is where we identify, what is the problem, what is the issue that the client can control, and once they walk out of the shop, it ceases to be the client's problem in my view.

Michelle Dennedy: So the other entrepreneur across the street is gonna like have a bonfire business. And you just put your paper in there.

Daragh O'Brien: Yeah.

Michelle Dennedy: So. We have missed two important aspects, young man.

Daragh O'Brien: Yes.

Michelle Dennedy: Your book, what's it called, who's your coauthor? When's it coming out?

Daragh O'Brien: My book is Ethical Information Management: Methods, Concepts and Practices, I think. The coauthor is the wonderful Dr. Katherine O'Keefe, whom I have had the pleasure of working with for the past nearly five years.

Michelle Dennedy: And Dr. Katherine is another ginger and completely spicy, which I just love.

Daragh O'Brien: Yeah, she's my tame San Diegan. But she's been living in Ireland for the last number of years, so she's gone native to an extent. And the book is coming out on the third of May. It's available for preorder on Amazon at the moment, published by Kogan Page.

Robert Waitman: Just in time for GDPR.

Daragh O'Brien: Just in time for everybody to go, "ah... what next?"

Michelle Dennedy: Ah...

Robert Waitman: Oops I'm not ready.

Daragh O'Brien: People will struggle to be ready 'cause people don't understand what ready means, ready means changing your mindset.

Michelle Dennedy: That's right, ready means being ready, not being finished and certainly not being compliant, that's the one that makes me crazy.

Daragh O'Brien: And the other aspect is of the company we're working with that's looking — you mentioned GDPR, we're looking at one of our technology partners simplifying some stuff, so again, looking at how to unlock some value in data, simplifying processes around things like [inaudible] access requests, working with a company called Noppera and Noppera.vision and they're doing some interesting things in that space using machine learning and what we call the drawer of forgotten dreams in universities where research has been abandoned in the past because they couldn't find a commercial application for it. And now we open the drawer and we say, "Hey, if we retool this this way, it becomes a privacy-enhancing technology." And the guys are going forward with that.

Michelle Dennedy: Noppera?

Daragh O'Brien: Noppera, yes.

Michelle Dennedy: So how do you spell that?

Daragh O'Brien: N-O-P-P-E-R-A.

Michelle Dennedy: Noppera. And the name of the book again?

Daragh O'Brien: Ethical Information Management: Methods, Concepts and Practices, I believe.

Michelle Dennedy: So final question for you. What gives you hope?

Daragh O'Brien: What gives me hope is that the people are starting to wake up to the issues, people are starting to be more alert. I've been asked to go on breakfast TV in Ireland in about a week to talk about the types of data that we're giving up on a regular basis when we're using online media, when we're using apps etc. The fact that that is a breakfast morning TV slot gives me hope, 'cause five years ago that would've been the nerdy midnight science program slot.

Michelle Dennedy: We tried, remember, we were doing all this cyber safety stuff years ago, and I remember constantly hearing, "It doesn't bleed, so it doesn't lead. This isn't a consumer issue. Nobody cares." And I think that world is changing. I mean, what do you think it's gonna look like when your daughter is your age?

Daragh O'Brien: Well, given that my daughter sent a subject access request to Santa Claus to see what list she was on.

Michelle Dennedy: No she did not.

Daragh O'Brien: Yes, she did. I'm so proud of her.

Michelle Dennedy: I love everything about that. Did she receive an answer?

Daragh O'Brien: We're still within the 40-day response period. And I'm sure the venerable St. Nick will respond in due course.

Michelle Dennedy: And Liz Dunham is your commissioner, right?

Daragh O'Brien: No, no, Helen Dixon's my commissioner.

Michelle Dennedy: Oh, Helen Dixon's yours. Sorry. Sorry, Helen. Sorry, Liz.

Daragh O'Brien: Helen's great. I have a lot of time for Helen and her staff. We disagree from time to time but I have a lot of time for them as people.

Michelle Dennedy: For the non-privacy people, Helen Dixon is actually the data protection commissioner for Ireland.

Daragh O'Brien: Yes.

Robert Waitman: Who covers the North Pole?

Daragh O'Brien: That's an interesting... we're into whole cross-border transfer issues and is it inside the European economic area or not depending on which province of Norway we allocate the location to. I wrote a whole blog post about that a few years ago, back when I thought that type of thing was still funny.

Michelle Dennedy: I still think it's funny. So, Robert, final thoughts, hopeful thoughts, from you.

Robert Waitman: Well, I love hearing the examples of where companies are actually getting value and discovering that they can turn some of that data into real value. I mean, this is something that we struggle with and hearing good examples of it, so I'm certainly encouraged by the conversation we've had over the last twenty minutes, and hearing some of the progress that folks are making.

Daragh O'Brien: I was on a webinar with Tom Redman last week, talking about the overlap between...

Michelle Dennedy: Can you tell everyone Dr. Redman's...

Daragh O'Brien: Doc Redman. Data-Driven is one of his books. He's one of the leading pioneers in the field of data quality management. He's a statistician.

Michelle Dennedy: He's known as Doctor Data.

Daragh O'Brien: He's the Data Doc.

Michelle Dennedy: The Data Doc.

Daragh O'Brien: The Data Doc yeah, but he is very much a quality systems thinker and he sees that the tipping point being very like where we were with manufacturing quality 30 to 40 years ago.

Michelle Dennedy: Do you think, because we've mentioned him at least three times, it's like Beelzebub and he'll show up?

Daragh O'Brien: Beetlejuice, yeah.

Michelle Dennedy: Oh, Beetlejuice. Beelzebub, that's something different. That's based on what I did last night at the pub. So, we're gonna buy your book, we're gonna check out Noppera.vision. How else can we find you?

Daragh O'Brien: Well, Castlebridge is Castlebridge.ie and I am @cbridge_chief on Twitter or CBridge Info on Twitter for the company.

Michelle Dennedy: Excellent. And Robert Waitman is @robertwaitman on Twitter.

Robert Waitman: What a creative new name I've come up with there.

Michelle Dennedy: You know, it works for me. And he's gathering listeners, followers, all the time on Twitter, so make sure you fast follow @robertwaitman, he's trying to build up his followship—gosh you know, you'd think I could get the technology straight.

Daragh O'Brien: They're called stalkers, Robert. Stalkers.

Robert Waitman: Is that what it is?

Michelle Dennedy: Exactly, this used to be a bad thing and now we're excited.

Robert Waitman: I heard you could buy them. That's a thing.

Michelle Dennedy: It's so creepy, I don't know why you would buy them.

Robert Waitman: I know. I heard that.

Michelle Dennedy: Anyway, both of you, thank you for being flexible and letting me grab you on your birthday and out of the blue, and being on the show. I'm so excited. Another episode of Privacy Sigma Riders. It's a wrap.

Daragh O'Brien: Great. Thank you very much, Michelle.

Robert Waitman: Thank you.

Michelle Dennedy: You've been listening to Privacy Sigma Riders, brought to you by the Cisco Security and Trust Organization. Special thanks to Kory Westerhold, for our original theme music. Our producers

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