

Dr. Scott Keay

Improving Intelligence Analysis in Policing

Mindy: [00:00:00] Welcome to Analyst Talk with Jason Elder. It's like coffee with an analyst, or it could be whiskey with an analyst reading a spreadsheet, linking crime events, identifying a series, and getting the latest scoop on association news and training. So please don't beat that analyst and join us as we define the law enforcement analysis profession.

One episode at time.

Jason: Thank you for joining me. I hope many aspects of your life are progressing. My name is Jason Elder, and today our guest has 20 years of law enforcement analysis experience. He spent time with the Lancashire Police Force. He was the 2018 best analyst manager by IALEIA. He holds a PhD from the University of Central Lancashire, and he is currently the program leader of the criminal intelligence and data.

Analysis at Edgehill University. He's here to talk about, among other things, the second edition of his book, improving Intelligence Analysis in Policing. Please [00:01:00] welcome Dr. Scott Keay. Scott, how are we doing?

Scott: Hey. Hello. Hi, Jason and hello to all your listeners as well. Doing really well and really pleased to be here.

So thank you for inviting me on.

Jason: Yes. So how are things across the pond, as I like to say?

Scott: Well, we're notorious apparently for discussing the weather, so I can start there if you want that. It's not been so good. , It is been getting in better, but now it's just had a bit of wind and rain.

And I coach a football team or should I say soccer team? Yeah. So I have to keep an eye out on the weather 'cause I have to do a ma pitch inspection on Saturdays ready for a Sunday game.

Jason: Yeah. Can you remember the last time you saw the sun?

Scott: I think there was a glimpse of it two days ago.

Jason: Very good. Well, hey, I certainly do want to talk about your book and get your perspective on your career. You transfer, from practice to academia. Let's start from the beginning. How did you discover the law enforcement analysis profession?

Scott: I fell into it. Well, when [00:02:00] I say by accident my, my career goal was always to be a police officer.

Always wanted to be a cop ever since I was about 13. And that was it. That was just like cop.

And then I did work experience with school and college and I did some really good work experience where I was working with a police officer and he said to me, don't join at 18 'cause that was the minimum age you could join in the uk.

He said, have a bit of life experience. You would be a better police officer. It'll do it'll do you well. Help you learn about developing relationships. So he said, go around, do a few different jobs get to know the world a bit, and then join when you're in the mid twenties. So I took that on board.

You're listening to someone who's experienced. So I did a few different jobs just messed around really, and money, spend money. And then I did Camp America, so I was 23 years old, did Camp America, came over. I had a fantastic time in the States. A really good experience and I would recommend anyone to, [00:03:00] to work on a camp.

Met some fantastic people, but one of the people I did meet was she was a female officer from the uk from the Metropolitan Police, and she'd taken a career break and she, and I was saying to her, oh, I'm gonna join the police when I get back. This is a stop gap, just have a bit of fun, but also to build my CV up about relationships and dealing with people.

And she said, oh no, don't join the police straight away. Get yourself a degree, go to university, get a degree, and you can get on the advanced promotion ladder and you can do much better. So I was like, oh, well, she's in the job. She knows what she's talking about. So, when I got back from I did a couple of months on camp and then I did a couple of months backpacking.

And I came home and applied for university and I got accepted on a criminology course at Kehl University. Fantastic Campus University. And while I was there, I was lucky enough to do a semester student exchange at the University of Maryland. And that was fantastic. And that. Started to shape. I

didn't realize at [00:04:00] the time, but that really did shape where I was gonna end up.

So I came back and then at the end of my degree, me and a friend we were talking about getting jobs and I went for, I went to the police and I went to some inputs on policing. And I thought, I'm not so sure about this now. I was 27 coming up to 28 because I was a mature student.

I was late at university and I just thought, I'm not so sure. So me, my friend, he was saying, I don't really wanna work yet either. We'd had three good years at university. He'd had some time in Canada on student exchange. So we went to Australia for just under a year and kind of backpacked around Australia.

And then when I came back I realized I had to pay for my travels and cover everything. And I was 29. Coming up to 30 and I thought, I really need to settle down now. So this advice from the age of 17 about getting some worldly experience really pushed me around the globe a bit. So I started applying for jobs, but at the time in the uk there [00:05:00] was a lot of, it was not a police officer role.

It's a, what you'd say, a civilian role. Yes. And there was a lot of adverts for civilian. Police analysts. And I thought, that sounds interesting. So I applied for a police analyst role and a police officer role in Lancashire Police and Nottinghamshire Police, 'cause I'm originally from Nottingham.

And I just said, I'll, whichever job comes up first, I'll take it. And the first one I was in the process for all of them and I was progressing through them all. And I got through the various assessments. But the first one that came up was the in criminal intelligence analyst with Lancashire Police.

And the inspector at the time said, I know you're going for these other jobs, but we really want you. I know you wanna be a cop, but we really want you. If you promise to pull out of the recruitment process, we'll take you on. So I was just like, yeah. Yeah. So then in January, 2000. Worked my way to the office and started my career as an intelligence analyst.

Jason: I find it [00:06:00] interesting the path that you've taken thus far. Given I know where you are now in academia because this road that you're on about travel and outside of the office networking developing your people skills and joining college late. Were you always a good student?

Were you always like have this curiosity for data?

Scott: Yeah. Before any of this happened I was working for a wine merchant and a brewery. And I used to do some market analysis around trends of sales and things like that. So I was always interested in data. And they used to go around stores to see what they were selling.

I've always been curious. You always have to know why things. On anything, I did some market analysis when I worked for this company. I am interested in data. 'cause I think as an analyst you've gotta be a bit geeky and, I'm a geek, I'll, I love to know how things work and I'm really curious about lots of things about the way the world [00:07:00] works.

So I have to know, I like depth and exploring and understanding. So I've got that kind of inquisitive but logical mind. So, yeah, I've done kind of little bits but I was gonna mention actually, Jason, if you don't mind me. Sure. Going back to this, when I was studied in America I went to Maryland University again.

It was a fantastic experience. So I'm in the second year of my undergrad degree. I ended up working as a police special and an SPAS. Police special police, auxiliary officer. 'cause the campuses are big. Maryland had about 35,000 students at the time. So students on certain programs were employed by the police to do the routine jobs, like, garage detail.

I had to patrol a multi-story car park for five hours an evening. So that was really good as well, working with the police. But when we first went, there was me and three others that came over. You look through the perspectives, you could choose which modules [00:08:00] you do, which of courses you do as part of your overall degree.

And I was looking through this prospectus and I saw this one called Criminalistics, and I was really, I was like, oh, wow. This is brilliant. You were doing like crime scene analysis, blood splatter, gunshot analysis, and I was like, oh, what? I have got to do that. So I marked it down and I said, this is what I want to do.

And the professor, the head of the criminology and criminal justice, he spoke to us all. And I can still see his face today. This is like 31 years later. 30 years later. And he, he said, so, so scar what is it you've put down? I see you've put criminalistics. And I was like, oh yeah, it sounds so fantastic.

Fantastic. Nothing like this in the uk. And while he, while I was speaking, he was just shaking his head. And he said no I really don't want you to do that. And

I was like, oh. He said, we've got this really new program, I think it'd be really good for you. And I really recommend you do it. So I was a bit deflated and I said, well, okay, if that's what you [00:09:00] recommend in a little bit of a sad English face and the voice.

And he said, don't do criminalistics. I want you to do police administration. So, yeah. Yeah, that was my response. I was just like, what criminalistics, science, fantastic stuff. Police administration. And I walked away going, what have I just agreed to?

Jason: Yeah.

Scott: Anyway, let me tell you, the two people that were involved, the professor at the time was

Lawrence Sherman, who's quite internationally known now for a lot of his work. And it was now Professor John Eck who's done a lot of work around this, a model, kind of Spelman developed a so-called R model. So this program called police administration was fantastic. It just wasn't what it said on the tin.

I was doing ridealongs with the cops. We were doing all about problem oriented policing. The so-called R model, the application of theory to practice. So all that really excited me, and I think it was [00:10:00] that, that got me into being an analyst because this wasn't just about criminological theory that you can't really apply, but is interest in, but the application of theories and models that you can use in law enforcement.

And at the time I didn't realize who Larry Sherman was, and that was, and now, they're huge names. And I'm like, wow. I've studied under John Eck and I saw him a few years ago at a conference and I said to him, I said, I did your police administration module. And he said, oh yeah. I said I said.

That's a rubbish title. That was a really bad title. And he kinda laughed and he agreed. But it was, that was the embryonic moment that kind of pushed me into being a, an analyst. I'm almost sure of it.

Jason: Yeah,

Scott: so it, it was fantastic.

Jason: We have John Eck in common because I went to the University of Cincinnati where John Eck is, I got my master's degree there. And so that's

where we met. And he [00:11:00] actually recommended the Washington, Baltimore HIDTA. That was in Greenbelt, Maryland, just outside of University of Maryland. That's where I interned and then hence got a, got my start and got a career as an analyst with the Washington Baltimore HIDTA.

So, so we both have that in common that that's brilliant. Dr. Eck was a big influencer on our career.

Scott: Yeah. That, and his work is great as well. Yeah. Because some of, he writes well and he's a bit tongue in cheek and and I dunno if you've seen his article, which I use in my in one of my classes it's when it, when is a Bologna sandwich Better Than Sex is the title of the article.

And you say, and when you know John, you just like. Yeah. He's one of the few people that could get away with that.

Jason: Yeah. Yeah. Yeah. He is. Great. All right, so then let's get back to you walking into the doors first time as an analyst with the police force and just, is this around [00:12:00] 2000?

Right? So just take us back to that time and you just walking in and you getting your feet wet as an analyst and just that whole experience. What do, what comes to mind?

Scott: Looking back the person I worked with Janet Evans, who's now in Australia, you know she was a fantastic analyst and she co-authored the article in 2012 with Mark Keble around what makes analysts effective.

And she was a person that kind of was my mentor as an analyst and. I think probably one of the most memorable things was the size of the TV mon the computer monitors, about as deep as they were wide, unlike now

Jason: yes. The cube.

Scott: So, and we only had one of them as well.

So yeah, at the time it was it was a kind of a new thing and a newish thing. We'd had analysts in Lancashire for a couple of years.

And the national intelligence model was also starting to be start to come into fruition. And Lancashire was one of the early adopters. We were one of the pilots for the [00:13:00] national intelligence model.

So I started at a time when intelligence led police and was having a big revision. In the uk. So I was lucky enough to be a part of that and learn about what about the standardization of intelligence products. And the national intelligence model was key for the analyst as well.

It put the analyst center stage that the analyst was there helping drive a lot of this activity. So, to learn the trade. And whenever anyone says to me, now, you know what I say by trade, I'm an analyst. 'cause, that's where I started. And helping to embed new practices was is, was quite a good thing at the time.

So it was, there was a lot going on. So I didn't really have, it was as a kind of smooth transition, but there was a lot of late nights because we were trying to look at how we'd embed this new model and I was learning my trade and I was learning, doing some stats analysis for tactical analysis and then getting involved in problem oriented policing as well, which I was really keen to do.[00:14:00]

Because of the input I'd had when I was at Maryland. So there was a lot going on. And at the time, analysts were I think it was on your, the last podcast, I can't remember his name, so apologies to him. They were talking about the crime survey that they were doing the analyst survey and he talked about analysts being like a Swiss Army knife.

Jason: Yeah. Cody Gabbard

Scott: Cody. Yeah. And I was listening to that. I was like, yeah, that is right. Some analysts are just like this Swiss army knife. And we were like that. You're doing strategic analysis. Crime analysis, intelligence analysis. So we had many hats at the time. It wasn't as specialized as some other roles are now.

So that helped me as well, had a grounding in a range of different types of analysis, working with different departments.

Jason: Yeah. So why you are doing a variety of tactics. I, is there a certain problem or a series of problems , that you're focusing on? What's some of the projects that you got assigned

Scott: early on?

A lot of the stuff revolved around the tactical tactical meetings. We had [00:15:00] tactical meetings every month. And we had to write a tactical assessment for these meetings and parts of it. Looking back in hindsight, parts

of it were probably not as mature as they are now. They were just looking at what had happened over the last four, four weeks kind of thing.

And, experienced analysts are a lot more mature than that. It's like, well that's what's happened. We need to forget about that. We need to be a bit more looking at forecasting where we can go.

And over the last few years you've got this big drive for hotspots policing that probably wasn't as big as it is now.

Back then we just were asked to do maps of where crime was, but there was no context to that. And that kind of frustrated me coming from university where I was taught a lot about. Adding value developing insight, adding context to to what the data was telling us. So I think in the earlier days from my perspective, we were very data led rather than hypothesis led.

So this is what the data's [00:16:00] telling us. And there was a bit of kickback from some officers. They're saying, this doesn't tell us anything new. And it can, it kinda like, well yeah, I see that. 'cause we can just rebadging what the data we're collecting. So, we're tried to do new things and look at how I could bring in some of my learning from university to try and nudge along the analytical product, the intelligence product so that it could drive activity.

Because even early on I was very mindful that if we're doing all this work, it's got to achieve something. It's got to drive some kind of decision. It's got to make people do something or want to do something based on the work rather than just be Oh, it's nice to know. 'cause and I think, and at the time we had products that were nice to know.

Yeah, that tells us about that. But then we had products that were driving activity and they were the ones that we were trying to refocus our efforts on. But unfortunately at the time we had to service a range of [00:17:00] different meetings and a range of different requirements, competing demands from different departments that all wanted a summary of where they were with the data.

So it was balancing that a lot in the early days.

Jason: Yeah. So it sounds like, and you can correct me if I'm wrong, that you had a centralized. Units I'm obviously not familiar with Lancaster, during this time. Give us an idea of what the makeup of the analyst unit was the the police force looked like.

Size and scope just to give us a better idea.

Scott: Yeah, sure. So at the time, Lancaster in, if you compare it to the US it's a very small, it's probably like a citywide area with the suburbs. It's about 51 by 41 miles. So 50 miles from the bottom to the top and 40 from one side to the other.

It's got about one and a half million people living in Lancashire. And the county is quite diverse 'cause you've [00:18:00] got a coastline down one side and then you've got quite rural areas. And then a couple of urban areas. And we border Lancashire borders. Me MER side or Liverpool and Greater Manchester.

So these are bigger hubs that are more likely to export criminality than what Lanker should does. And we had six, what they call BCUs basic command units, so smaller policing areas. And in each BCU area we had two analysts. So there was 12 analysts, two in each area that kind of supported that smaller policing area.

And then at headquarters, I think at the time there was six, six analysts and they covered, the what, the wider geograph geographic area, so the whole of the county. So we covered parts of the county. They covered a bigger area, so they were involved in more of the intelligence analysis stuff, so dealing with serious organized crime.

And we were dealing with [00:19:00] more crime analysis. So your burglary patterns shoplifting local violent crime, that kind of stuff. So the National Intelligence model, if we use that as a guide, that said there's three different levels. There's level one, which is A BCU area level two, which is a force wide area which usually is regional.

So across across different forces. And then level three was your national scope. Obviously criminality doesn't work like that. But that's how the organizational boundaries worked. So we were, as a level one analyst, we were looking at more localized issues, which is why I was involved in a lot of pop work.

Because I soon became one of the kind of pop supervisors and assessing all the problem oriented policing initiatives that were coming through.

Jason: So then did you enjoy the pop side of things as opposed to the investigative side?

Scott: Yeah I did. The pot was good. There was a lot of them.

And the Force, Lancaster was quite a [00:20:00] leader in problem oriented policing. And we'd had, we were doing really well. We did well in the National Awards for problem oriented policing. Some of our senior figures, in fact, my co-author Stuart Kirby, he was a kind of a champion for problem minded policing as well.

So there were very pro pop and when you, when pop's implemented properly, you look at the systematic review that's just been done a few years ago, when you use pop properly you can have some significant reductions in crime. I think the systematic review said up to 34% reductions in crime, when you develop and you implement problem oriented policing and you tailor your responses accordingly.

So, Lancaster was very pro pop. At the time. And we we had a number of strong pop awards as well including people like Professor Nick Tilley, who we, you've got the Goldstein Awards, the International Pop Awards. The UK has the National Tilly Awards, which is for excellence in problem [00:21:00] solving within police forces in the uk. So yeah, I enjoyed doing that because there was a bit of a community focus as well as there should be. And that's, goes back to Goldstein's work that the community should have a say in, in the things that bother them.

But within eight months of me being there, I was involved in a major incident. It was, an aggravated robbery that became a murder investigation. And that's when I started to see a different side of the analyst role. And I was like, oh yeah, this is really exciting. You, we, it was very fast time working a lot with the investigators, working with with intelligence officers from across the force and looking at serious organized groups and a bit more of a coordinated, in an in-depth way.

So that kind of pushed me to say, I wanna start working at headquarters. I wanna move onto. In big intelligence development jobs where we're building up the networks, looking at the different networks and how they operate. [00:22:00] So whilst that job was really good for me, for a divisional analyst at the time you're doing your tactical assessments, you're doing the pop work.

You brought in your frontline offices, but also I was working on this major investigation, so you didn't have much time to dedicate to any one thing in particular. So there was a lot of late nights.

Jason: Yeah, it sounds like you're spread pretty thin and don't know, like what, don't know what type of meeting you're gonna have next.

Scott: No, but for a new analyst, within eight months I'd been exposed to a range of different requirements for the job. And I really do feel for those analysts that have to do a bit of everything it, it is great that you're gonna be a jack of all trades, but sometimes you w you worry that you're gonna be not a master of any of them, and you can be spread a bit thin as well.

Jason: Yeah. So you eventually work your way up to headquarters, correct?

Scott: Yes.

Jason: , How does the Mobil upward mobility there as an analyst work?

Scott: Well, well that was it was there's a job vacancy.

[00:23:00] So I applied for it. I can't remember how many people applied for it.

But I'd spent just over two years as a divisional analyst.

And yeah, I'd got the experience to move up and I'd worked on a number of projects as well, so I think I, I'd had a good CV to go for it.

So I applied for the job and I met the criteria and I got the job. So I was then involved in more intelligence analyst analysis work. So we were assigned working with, in development teams. So you had your intelligence development team and you are involved in tasking of whichever organized crime group you're looking at.

So we are looking at Jason Elder. We believe he's di, he's distributing drugs to a number of different drug gangs. So we'd help develop the intelligence picture around that individual. So working with the surveillance team, working with the the Intel development team and a lot of telephone work.

'cause that's a staple of the intelligence analysis arena of who's connected to who. [00:24:00] And then some strategic work as well. So, a lot of the strategic work was arra based at headquarters at the time. So doing your strategic assessment, your long-term planning, what are the big things that gonna hit us over the next few years?

Jason: When you go to headquarters. Does that feel like a big deal? Are you going from such a small place to a big place? Or , did it not seem like that big a transition?

Scott: No, it didn't seem like a big transition. It's a, it's a small for relatively small force.

All the analysts knew each other and I was really lucky. There was, there's some great analysts, there was some great analysts at Lancashire and there's a couple still there that started before me. So it was a good opportunity to learn from a number of different people that had worked on some significant pieces of work.

So yeah, the transition, it wasn't a big thing. We used to have regular meetings, like monthly meetings where we'd try and get all the analysts together and discuss what was happening in different areas and then occasionally on occasion I remember. [00:25:00] I think it was in it might have been around 2002.

There was a significant issue with burglary across the force and then with this big. Meeting where we had analysts from all over the force and we're all working together, collaboratively to look at different aspects of burglary and about what we can do about it. So we're looking at what people were doing, how they were doing it, and then we're if there was a linked series, we're looking at how we could share ideas and intelligence across the different BCUs in targeting it.

Jason: So, as I mentioned, you were awarded best Analyst manager in 2018, so you work your way up to management by 2018.

And so just like again, what was that transition like for you? Because once again, that's a step up. Once again didn't seem like a big deal, but was it a big deal?

Scott: No. I don't think so. It is difficult when you've worked with a team and then suddenly you are managing the team.

That was, I won't say it was [00:26:00] difficult. I had to, I treaded very carefully with that because, it was a quite friendly bunch of analysts, or I remember 'em as being a friendly bunch. So, and we all, we did work well together because I think analysts are a small group of people within a bigger organization.

Jason: Sure.

Scott: And we understand our role. Others outside don't necessarily understand our role, and there has been frictions between analysts and police officers and

disagreements with about what we should do in certain jobs, et cetera. And I thought that was localized. But and certainly since then I've realized it's not Rachel, Boba Santos did that work around the integration of crime analysis in the USA and then there, there was one with, Bill and Johnson in the UK about his analysis central to policing. So it was interesting that there's these two different studies in around 20 14, 20 15 in both the UK and the USA, looking at the [00:27:00] integration of analysis into policing and that the, that some police officers disregard the, an analytical output sometimes.

There's a bit of friction because you've got civilian staff versus you warranted sworn staff. So when. I made the step up to, to like a supervisor post. I was well aware of some of that friction, so I saw it as part of that job to try and try and synthesize the use of the ana analyst analysis more and try and encourage how we could extend our reach and improve the communication between the analytical work and the end user.

Jason: Yeah, and this is where the, you. You get to use those people skills you developed in your twenties. Right. Because I think I have also seen and experienced that as well, and it is, it's just the sworn versus civilian. Two different groups of people and there's so much in many things that are [00:28:00] different.

, One of the more important things to get past that is to have something to connect to having in common. And that's something that I wish I would've realized younger in life because I, as I mentioned, I was not only was I a new civilian analyst in the Baltimore area I also was new to Baltimore.

Right. So just to connect to some of these officers and, if we didn't have much in common was a real challenge. But I've talked to other analysts that like, oh, well, they were scuba divers. Divers, and then every, both the sworn and the civilian were scuba divers. So they were able to build rapport that way.

Talk about it from your perspective, trying to build that rapport and trying to bring together the sworn and the civilian during this time.

Scott: Yeah. Well, like you say there, a lot of it's about relationship building. But also to be open and honest and have some really open and honest discussions.

And just reaser, we're all on the same side here. We're all [00:29:00] trying to achieve the same goal. And so when we were developing a lot of the analytical products, quite often we. After we'd produced some intelligence product,

whether it was like a target profile or a tactical assessment, we'd go back a couple of weeks later and get some feedback.

How was it, did it was it useful? Did you use it? Was there anything that you thought was missing or what parts of it were good? What parts of it were bad? And we did that on an informal footing. Just to try and ensure that we were adding value. And I think nowadays it's better than that by far better.

'Cause when I started, I think forces, certainly in the uk we go through a lot of transition in relation to intelligence. The introduction of the national intelligence model we were a pilot force of that. So that was around 2000, 2001, and then nationally it was rolled out by 2005.

So we, within that, it. Pushing the analyst to be at the center of it. [00:30:00] So suddenly you've got this big spotlight on you from the force and there's this big expectation. And I don't think we always met that expectation. But I also don't think that was at the fault of the analysts. I think that was part of, at the time, the national intelligence model, because I feel that the national intelligence model shackled analysts, because in the UK national intelligence model, it said.

You have to have a strategic assessment, you have to have a tactical assessment problem profiles and target profiles or subject profiles as they became. And it was very prescriptive and I don't do well with being very prescriptive. 'cause my view is that analysts should be creative and when you become prescriptive, you stifle creativity.

And I think some analysts felt caged and suffocated because of the, this prescription that was inherent within the national intelligence model. So we were producing. Pieces of work and intelligence assessments [00:31:00] because that's what we were being asked for. And sometimes we weren't being asked the right questions.

And if you don't get asked the right questions, you don't get the right answer. And I think that turned off some customers because they were asking questions that they weren't really sure of. I remember a a story with a guy, a really nice guy actually. He was a superintendent and he came into our office one day and he said, yeah I want a strategic assessment.

Oh, okay. Yeah. What is it you actually want? Well, I want a strategic assessment, that's one of the big four products.

Jason: Yeah.

Scott: Yeah. Okay, I hear that. But what is it you exactly want? Well, I want a strategic assessment. It's like, okay, tell me what you want without using the words assessment and strategic I'll get back to you.

So we were being asked for these things and that wasn't a one-off experience either. So for us at the time, we educating ourselves whilst also educating our [00:32:00] customers. And it was quite difficult. It's quite difficult. And then also within policing I'm not so sure what it's like in the states but we have a high turnover of offices.

You've got them in the department for a couple of years, then they transfer to a different department or they get promoted. Yeah. So you feel like you're on this constant treadmill. You are like a little hamster in a wheel just going round and around that. Just as you educate those that you are working with and you get them to a point where you're like, oh yeah, we've got this good relationship.

They know what we can do, that we know what they want. Then they're like, oh, I'm going over to a different department from next week. And they're like, oh, bugger, I've gotta start again now. So it was a constant educational process. And I think that still is the case in some areas.

Eliann: This is Dr. Eliann Carr from the Ellensburg Police Department here to talk about the first of its kind, the Crime Analyst Census survey. This is an opportunity for crime analysts from around the world to be able to share information on the [00:33:00] demographics that make up the field, be able to look at the relationship between commission, non-commission, and how we navigate that relationships in our career field, and also to look at training opportunities and development that will help us foster the opportunities for growth and development both personally and professionally.

If you're interested in taking the survey, you're welcome to go to the link in the show notes below, sure that your voice is heard and included in the data.

Jason: Andrew, I do wanna start right there with the book. What pushed you to write this book? Large Language Models for mortals.

Andrew: I was really not happy with the introductory materials for Python, and so I, I initially wrote that book, data Science for Crime Analysis with Python, and it's a similar sort of origin story for the large language models.

Jason: Well, how can people contact you if they have further questions or in how can they get the books?

Andrew: Yeah, so the book is available on my website. My website is [00:34:00] crime de coder.com. If you go to my website, I have a store to be able to purchase the book either in epub or paperback versions worldwide. So you can buy it and get it.

For folks listening, I did create a promo code. You can use Leap LLM, so L-E-A-P-L-L-M to get \$20 off of the paperback. I know from the prior Python book, a lot of folks like the paperback version, and I'll send you the Eub as well if you use that code. And then to just contact me, I have a contact page right on the site, but you could also just send an email to andrewWheeler@crimedecoder.com.

Jason: You mentioned a spotlight being on you as an analyst group, and I think one of the aspects of being sworn that I was envious of is that they had practice doing what they [00:35:00] needed to do.

There was a little bit of a recipe that they were following 'cause it. Leasing's been established for hundreds of years and for analysts, most places it's new and it's there you, while I do like to be creative and see the need for analysts to be creative, there was this always seeming like you have to build everything from scratch and that you weren't, you didn't have stuff that was established and that you could practice and that you could fine tune and it seemed like it, once it, you were getting maybe the hang of it, something major would happen.

Maybe a change in leadership and then. Things could just totally change from there. And that there wasn't the standard way of doing things That, and in many ways, I think could have made things easier when major incidents or major projects came aboard. Do you feel that way?

Or how do [00:36:00] you feel about that statement?

Scott: Yeah. I mean there was certainly a lot of plates spinning. Yeah. Because like you say, we're learning stuff and I think in policing they, they want the answer there and then they don't wanna wait. And analysis takes time. And research in policing takes time.

And Jerry Ratcliffe mentions this in his book on strategic intelligence. Good research takes time, but policing. They want it. They come in and they say, I want this. And you're like, okay, I'll get to work on that. Yeah, I want it by tomorrow or something. You're like, whoa. So straight away when you start saying, well, I can't have it done in then, you almost alienating your customer.

So, but also if you do it in that time, you're diluting your product as well, so you don't have the same impact. So we did have we did have a number of scenarios where we were trying to hold off the customer, so to speak, in getting the work so we could do something of value whilst educating them about what we can do when we're given the time.

'Cause [00:37:00] early days as well. This tops are notoriously not good with computers. They were often asking us for just. Statistics and data, and there's a really good article in 2004 by Nina Cope, and she talks about analysts as data translators and information providers. And that was very true early days.

And the national intelligence model promoted that your analysts will provide data. So that kind of held us back a bit because we're providing data and like, yeah, you've had so many burglaries, you've had so many of this. And then they'll be like, well, you're not telling me anything new.

Yeah, but that's what you asked for. So we weren't given the time to develop questions or hypothesis, which is the difference in academia. You become hypothesis led and then you look for the data to confirm or deny it. Whereas in policing, they wanted to know what the data told you.

And so that was a kind of constant battle as well. It's like, well. This is the police, the recorded police data will only tell you a small portion of what the bigger [00:38:00] problem is outside of the force. So we are fighting that. So, going back to your point, yeah. There's new model new, a new profession that's new kids on the block kind of thing.

Cops that can be very stubborn in their way. Like who are these trying to tell us what to do? I'm like, we're not trying to tell you what to do, we're trying to work with you. So yeah, there's a lot of a lot of things in the mix that we're battling with. And that didn't really help when in the uk we had austerity measures in that started in 2008.

Because I dunno if, did you have big cuts to public services in 2008 following mind you, we had the. Banking issues.

Jason: Yeah. I do remember layoffs, the potential for layoffs around the 2008, 2009 time timeframe. Yeah.

Scott: Yeah. And UK forces were hit hard. I published an article in a journal with Stuart, funnily enough as well about using evidence-based practices to [00:39:00] help reenergize the analytical role.

And in two, 2008, 2010, we had a lot of thoughts to policing and public services. Now, my view would be if you are cutting your resources back, you'd want to be investing in your analysts more because they can help you better assess where you're gonna have your biggest impact. They can help you conduct analysis to look at improving efficiency and effectiveness of the police force, which is what we should be there to do.

Improving that efficiency. And yet my research showed that across our MSG, so our most similar group in the UK forces are, or were put in what they call MSGs most similar groups. So forces that were very similar. There'd be about six to eight in these groups and they'd be compared against each other about how they were performing very backward analytically.

But that's how the inspector looked at them. So by very nature that some are gonna be [00:40:00] above the average and a couple, some are gonna be below the average.

But by the by, that's how they kinda looked at groups of forces. And when I looked at RMSG during the main cuts that forces were losing between, I think it was between 28 and 50% of their analysts.

Which is a lot.

And I always think this is, I just thought this is bonkers. When you have a reduction in resource, you should be increasing your analytical capacity to better direct your reducing, shrinking workforce. But it seemed to be inverse 'cause analysts were paid fairly well. And of course to make the savings analysts were hit hard.

But I think what contributed to that was all that stuff we've talked about being asked the wrong questions. Not doing the right products. There's a lot of literature, like I mentioned, Nina Cope's work. And even in 2008 there's a fantastic book, the Handbook of Intelligence, and one of the chapters in there, Mark Evans, he talks about [00:41:00] the value of analysts can be fantastic, but we need to ensure that analysts have the right skills to do the work, otherwise they're gonna be vulnerable to efficiency savings.

And it's almost prophetic in what he was writing just before these cuts hit. So it did hit the analysts hard but I'm pleased. I think they've come through those kind of dark years. And that there's a growth again in, in analysts and the analyst profession. And it's good to see, certainly in the UK there's a number of conferences that are coming back on the circuit.

The investigator do some very popular conferences. I too do a conference as well, and there's a couple coming up, so you know, when you look, that was always my gauge, what conferences are running and are there a lot of conferences around analysts because if they're running. That tells you there's some value in it, and that shows the the enthusiasm for certain areas of policing.

And they're certainly on the rise or they have been over the last few [00:42:00] years. So my, my, my takeaway from that is that the role is recovering and is adding value again. And forces are starting to make most of analytical services, which is a great thing.

Jason: Well, let's let's do some story time then, and this brings us to your analyst badge story.

And for those that may be new to the show, the analyst badge story is a career to define and case or project that analyst works. , In line with. Partnerships and people development you, your case that most comes to mind in this is a child sex exploitation case that you worked.

Scott: Yeah. This has been in the partnership intelligence role.

And do you know what that was probably my most enjoyable time in the force. I had, I think six or seven years there. Initially the team that I worked with, my team were some were new and some were learning and some were seconded into the [00:43:00] role acting up because we had vacancies.

So there was a lot of training. And that's probably my proudest moment in working with that team because we had a lot of fun. But we pushed a lot of boundaries analytically. We were successful in the LEA Awards. We won three in 2017 and three in 2018. So six over two years because of individual efforts, a team effort.

And I was the recipient of one as well, which I'm, I'll be forever thankful for. But I think it was there, there was also some awards in the UK we received as well some national awards around some of the work we were doing. And that was the demonstration of the impact we were having. So yeah, one of the pieces of work was child sexual exploitation.

That was working. That was the first time that. We developed a problem profile using the National Intelligence Model framework there using a problem profile where we took some a sample of referrals for child sexual exploitation, CSE. We took a sample of referrals to the police [00:44:00] and then we cross-

referenced that sample with information, data and intelligence from social care, public health and education.

Because when people call the police, they're at crisis point. That is the last resort. There's other agencies out there that are dealing with people, vulnerable people, well before they hit the radar of the police. So what we wanted to do was we wanted to look at where some of these referrals were hitting other areas and what could we learn from that.

It took a while because we had to do a lot around information sharing, make sure that all the information sharing protocols were in place and how we would, i, if we identified someone that had been missed what we would do about escalating, safeguarding. And luckily there was none of that.

It was just a really good piece of work that a number of different analysts were involved in both. The partnership team the crime and the Intel team as well. But also in the local authority. So in our local authority, the [00:45:00] council area, they have a business intelligence team and their analysts have access to a range of different data sources.

And they were the ones that did a lot of the cross-referencing work with us. And we found we had some really good findings about the impact of education data and social care data. And that was really useful for us to take a more holistic picture around vulnerable tipping points for some of those referrals.

And we made a number of recommendations to the to the county safeguarding board about what they could do in response to trying to reduce CSE and the impact of CSE. Which and then following on from that. I also did a focus group with victims of CSE as well through one of the charities, and that was quite a humbling experience listening to the experiences of a number of victims female victims age between 12 [00:46:00] and 15 about their experiences.

And how their experiences correlated, but didn't correlate with some of the data we were, we'd captured. So it gave a different context to some of the information. And I was asking them, these are some of our findings. How does that relate to your experience? And they were like, well, no, that's completely different.

So it was really good to do analysis that crossed different agencies, but we're also able to layer in the victim's voice within the final report as well.

Jason: And it's such a different experience for analysts and I think too many times that analysts they're so used to dealing with data they forget that every one of those stats deals with people.

Right. And it's sometimes it's easy to be so insulated. Between the office and the crime scene it's doesn't surprise me that [00:47:00] you had the reaction that you did.

Scott: Yeah. And it was a difficult.

It was quite, like I say, it was quite a humbling experience. It's quite difficult. And in fact, the whole piece of work was difficult because of what we were doing and it wasn't an easy piece of work as well. There's a lot of stumbling blocks, but we learned a lot along the way as well.

And ultimately it had some good impact as well. But prior to that the HMIC, the, his Magistrate's Inspector of Constabulary Police Force is our main governance. Whenever we have big strategic themes or issues the want all the 43 territorial forces in the UK to do a problem profile every six months on the problem.

And this is why we did the we got involved in this work because HMIC say, you should have a problem profile on this. And you do it every six months to see if there's any change. And it's mostly police data. And you think. Well, the law of diminishing returns, the more you do it, the less impact it has.

So when [00:48:00] we were asked about getting involved in this, I said, we're getting involved, but I'm not doing this every six months, we're gonna do it properly correctly, and we're gonna take a research focus to it. That's the only way I would get involved in it. I didn't wanna get into this cycle of just repeating the data that we're collecting.

I wanted to go beyond the data. I wanted to do more in depth analysis around it. Because I didn't agree with the structure that the HMIC was asking for in relation to this repetitive cycle of pieces of work.

Jason: In terms of the entire project, the entire case, the recommendations what came out of that? Just some highlights of this whole process that changed the way you all do business?

Scott: Well, in relation to that, some of the work that came outta that was listening more to getting, bringing in more, paying more attention to the victim's voice.

Some of that was around the wider data and working with different [00:49:00] agencies and trying to improve those relationships around that, particularly around solution design as well.

Because it did lead to a shift in when we were doing awareness campaigns and where we would target, so at which age groups we would target. So we kinda lowered some of the age groups. To try and reinforce, online safety and reducing risky behaviors online. But also sharing it across the different agencies as well, because I think different agencies have their own priorities.

And I think sometimes it's worth, certainly from an analytical perspective, is understanding what are the key drivers in different agencies that can have an impact on your own business as well and vice versa. Because when agencies operate in isolation, they just get tunnel vision on what they're working on.

But when you can break through that and share experiences. I think it helps in developing collaborative approaches to issues that put across [00:50:00] agencies as well. Because a lot of these victims were were also on the radar of, like I say, social care. They were truant from school or being excluded from school, but then come to the attention of the police as well.

So it's how we could work. Collectively and collaboratively in targeting a shared problem.

Jason: Alright, very good. Well, hey, let's move on then. Let's talk about your transition out of the police force and into academia. So let's talk about that journey.

Scott: Yeah. Following austerity, I think it reduced opportunity within police forces for police staff.

So police staff is the phrase that we use in the UK for civilian staff.

Jason: Okay.

Scott: So there wasn't much scope for development and I'd been in community safety for seven years and like I say, it was one of the best jobs I had. It was one of the hardest.

But we had so many good results in there.

And I, a job came up as head of perform. It was the old head of performance [00:51:00] called Data Analysis and Insight Manager. And I was doing my PhD at the time and I used to have to regularly ask our performance department for data from a PhD because I was working with some different agencies around data.

So it's getting access to different places. So I thought the easiest way is actually going for that job. So didn't really need to plead for it. I could sit on top of it rather than just asking others for it. But also, I thought if I don't leave partnerships now, I'll still be there in another seven years, which wouldn't have been a bad thing, but from a.

You, I think the time was right to move on. So I took that job. It was the like I say, it was more around performance and data. So new skill sets. A lot of that was around how, what data we record, how we record it. Sending off data sets to the home office on a regular [00:52:00] basis. 'cause we were in charge of all that.

And freedom of information requests, so some of it was a bit bland.

But it put me back into more central role within Lancashire police. But at the time I think I was getting itchy feet and having traveled around which we spoke about early doors. I think every now and then I get a little itchy feet and I get bored very easy as well.

So what maintained me in the seven years in community safety was we kept revising what we did and that kept my, it, it stemmed the boredom 'cause we were looking at new ways of doing things. And then when I moved across, there wasn't the opportunity and scope for that as much because there were a lot of demands from the senior management team around data provision.

So I don't think it was my it wasn't something that majorly excited me. And we just imported this whole new computer system. And that had some teething problems. We had to help restructure [00:53:00] that. And some of my team were I worked with a great guy, Phil.

He did some fantastic work on restructuring some of the data. But at the time I was doing my PhD and I think go back to 20, 25 years before that I'd worked I studied under John Eck like we mentioned, and I think I just felt academia

calling a little bit. I'd published a couple of articles, one off my PhD and one on the about using evidence-based policing to improve analysis.

And this job came up at the university. And I thought, when you're in an organization, you don't have many interviews, do you? You don't move around a lot. And I thought I'll just put in for that. I'll just apply to that and see how I do, because I'd applied for a job for a promotion in the Avion and I didn't get it.

So I think I was a bit hurt by that. But ultimately the person that did get it was very good. She did a really good job. So I applied for this job in the university. And I'll just do it just to see how it goes. And they offered it to me and I was like, [00:54:00] I dunno what to do now. They've actually offered, I didn't expect to get it.

So I was like, oh bugger. They called my bluff. So yeah, I took it and that was just coming up to 20 years in the constabulary. So I took it. I was doing me, I think also I thought that it would help me in the PhD as well. 'cause getting to that point was writing up.

And

Scott: I thought if I surround myself in an academic institution, it would help me speed up finishing the PhD.

So it was a big, bold move having spent 20 years in one organization and at one point I never thought I'd leave the police, yeah. 'cause that's what I'd always wanted to do. And when I first moved, I remember the first three months thinking, oh my God, I've made a massive mistake. What am I doing?

Jason: Yeah.

Scott: But it's 'cause I was outta my comfort zone. Yeah. And and eventually obviously it picked up and I now realize actually, it's a, it is a good job. I enjoy it. I enjoy the research side of it, but I'm learning so much 'cause I [00:55:00] teach intelligence. I'm learning so much. That I didn't know as an analyst, and I'm thinking, why did I not know this?

And if I knew this back then, my work would've been by far superior. And I've spoken to other analysts about some of the stuff I've been teaching, and they're like, oh, where did you hear that? And I was like, well, there's loads of research out there about it. It's like, I've never heard that.

And I'm thinking, well, what would we be?

What are analysts being trained in? And analysts? And when I look back, I think a lot of our training was about using software. You go to a course for a week and it's all about click here. Yeah, it's not about the theory, it's not about the application of theory to practice.

So I started thinking I'm, I've found a missing link and I really wish I could go back to the beginning of my career with all this knowledge, because some of it was from like the mid nineties. Malcolm Sparrow's work on social network analysis, didn't. Really register until the early two thousands.

And now I'm, funnily enough, Jason, I've just been writing [00:56:00] a lecture for next week for my master's course all around social network analysis.

And I'm thinking, well, this is dynamite for analysts. There's some fantastic work out there. So yeah it is been a bit bizarre how I got to academia, what led to it.

But I think it was, it's been in the subconscious since I sat down in front of John Eck. I think that's where it's come. I blame him.

Jason: It is, so we didn't talk about it, but even the, I guess quickly just talk about the decision just to get a PhD because you talked about, the big leap to leave.

The police force to go to the university. To take that endeavor for PhD is quite a decision.

Scott: Yeah. Well, you go to school and then you go to college or you stay in sixth form. And after that I said, no more education. I've had enough of it.

So a lot of my friends went off to university and were like, no, I wanna join the police. I'm gonna do some work like the cop told me to do. And then when I got, then I started in the police in [00:57:00] 2000. And in 2003 I did my masters. In criminal intelligence and then in data analysis no, it was criminal intelligence analysis was the masters and it was a distance based one.

So you didn't go into class and it didn't last long, to be honest. I think it ended pretty much I think I was the last intake on that program. So I got the taste for academia again. But then after I finished it, I was like no, never again. It's like a pendulum. It keeps drawing you back in and it did and I kept, I had been

thinking about it and I was thinking about doing something around intelligence and analysis, and I remember having a conversation with myself as you do when you're in the shower or you're riding your bike or whatever, or walking to work.

I said no, you're gonna stereotype yourself. You're just gonna be in the analytical arena. So, but at the time, this was going back to when I was in community safety and one of the teams I managed was around a national initiative called Troubled Families. And the whole initiative was about breaking generational cycles within families.

And there [00:58:00] was a requirement that you had to deal with families that had truancy, that the parents were not in education or in em not in education employment or training. And there was criminality in the household as well. And the idea was that these generational cycles, we were gonna, the government wanted to break them and just try and help these families.

Let's put aside the title. Troubled Families was a wrong title first off. But we were go, we, my team were going to meetings and they were looking at different groups to work with. So these were multi-agency meetings. You had probationary, you had the police there, you had face service there, you had social carriage all these different agencies.

And they're all squabbling over who we should be working with. 'cause the idea was you had these families that were on the radar of a number of different public services and it'd identify what the key issue was within the family. And then would take a lead professional approach in helping [00:59:00] them get out of some of their issues, whether it is drug dependency or financial issues or why the kids weren't at school, et cetera.

And when was in the meetings, I remember. What a couple of times they were talking about these families. They were saying, oh, , we need to work with Jason's family. Yeah. The this. And then someone would say, oh no, we need to work with Scott's family. They're more vulnerable. And that was it. And I remember thinking, what do you mean they're more vulnerable? Vulnerable to what? But the the term vulnerability was used as like this Trump card to try and outdo other agencies or that's how it seemed and.

At the time, there was financial incentives to the public sector that if you were able to show and demonstrate you, you supported the family getting back into work or training and you the children were going back to school and there was a reduction in crime, you'd get these financial incentives.

But there were some families that were being discussed that didn't match those criteria. And so as a collective, they [01:00:00] were saying, well, we, we can't really work with them. And I was like, well, why? Just because they only hit two of the criteria, we should be helping them. And they was like, well, no, they don't hit all the criteria.

And it felt like, your yeah your situation, your family life is really shit. But I'm allowed to say that on this podcast.

Jason: Yes you can.

Scott: So your situation is shit, but it's not as shit as it could be. So come back when it, and you thinking that can't be right. Because as lower threshold.

Yeah, we were just, were, there's a threshold here and they wanted the threshold highest. It was like when your fam, when your situation is even worse and it's harder to get you back into universal support, we'll work with you. And it just didn't feel right to me. And I have been notorious for being vocal when I don't like things.

I thought on this occasion I need to shut my mouth and do something about it. So, I spoke to a few people and I embarked on doing a PhD around vulnerability and policing. So my PhD was about how the [01:01:00] police define, identify, and respond to vulnerability. Because I do think that policing, a lot of intelligence analysis, the sex side of policing is targeting serious organized crime groups.

And that kind of stuff. But also there's another element of policing that's about reducing harm, reducing victims and reducing repeat victimization and vulnerability. And there's a lot of work that can be done analytically around that. And that became a bit of a passion of mine about how do we support vulnerable people in society and how do we as a law enforcement agency get involved in that.

So that's what led me into academia.

Jason: All right then let's talk about, teaching the program and students and frustrations and just the whole gamut of stuff that you're involved in now.

Scott: Yeah. So, in 2000 it became a requirement that anyone joining the police in the UK or in England [01:02:00] Wales had to have a degree.

And the College of Policing had worked with a home officer around this and HMIC. So just before COVID the this new requirement came in. So there's a big uptake in students coming to university and there was three ways of getting a degree. One is the program that we teach, the professional policing program.

The other one is you could have a degree in any subject you apply to a police, and if you get in, you have to go back to university to do a post-grad certificate in policing, or you become a police apprentice. So there's a big drive for universities working with police forces. It has since changed.

There is now a non-degree entry into policing. So there's four entry routes over here for joining the police. But what that did was it created a lot of opportunity in academia for teaching policing. And during that journey of, it was, well say during that journey when I started, it was just before COVID and then we had COVID hit.

So it was [01:03:00] I was, it was probably easier for someone like me that had only been teaching for about eight months before we've moved from classroom teaching to online teaching. So I adapted fairly quickly to that. Whereas I think some that had been teaching for 20 years in the classroom and then teaching online, they found it a bit difficult.

So that was a bit of a challenge. But also during that period Stewart, who was. Who was my co-author on the book. He was my original PhD supervisor. He was my first supervisor. So Stuart's had a career in policing. He's done fantastic. Well, and he is a superb mentor as well. He's a really nice guy.

And when he retired from the police in 2007, he moved to Lancaster University teaching, he'd done his doctorate in offender profiling while he was in the police as well. So one day I was talking to him about this was before I'd finished my PhD. I said, oh. There's a lot of scope here for a program, a [01:04:00] teaching program for analysts.

And I, I think, also we, there's a scope for a book as well. 'cause there was still some stuff I wanted to write about and Stuart said no. We, you concentrate on your PhD. That is the focus of your life. Get that sorted. And I was like, okay, boss. Okay. But just, and I spoke to him about this program and I spoke to him about a book idea.

And he even had chapter titles as well. I said, we could do a chapter on this and a chapter on this. Because, 'cause I was teaching I saw the opportunity anyway,

Stuart decided to retire. So I had to change my PhD supervisor. And I got Sarah Kingston, who is equally fantastic. So I've been blessed with academic mentors.

But when he was retiring, he said, oh, I've been approached by a publisher and I've mentioned he said, our book idea. And I was like, oh, our book idea. And he said, yeah, it he said there's some interest in it about improving intelligence analysis. And I was like, oh, as the now. So he [01:05:00] said. Do you think you could manage it?

Foolishly? I said yes. In hindsight it was a very bad idea. But I said yes. 'cause I knew that being in academia, part of my contract was about publishing. So in some ways it was it fortuitous, it landed on my desk. So, so yeah he twisted from saying definitely no to do you think he could handle it?

So that's where the book came from. But it came from, and it's probably coming through this as well, that my brain just pings and I start thinking aloud and all these ideas come flooding out. And some of them are rubbish by the way, and, but sometimes, occasionally I have a couple of decent ideas that quickly someone will jot down and come back soon.

Eliann: This is Dr. Eliann Carr from the Ellensburg Police Department here to talk about the first of its kind, the Crime Analyst Census survey. This is an opportunity for crime analysts from around the world to be able to share information on the demographics that [01:06:00] make up the field, be able to look at the relationship between commission, non-commission, and how we navigate that relationships in our career field, and also to look at training opportunities and development that will help us foster the opportunities for growth and development both personally and professionally.

If you're interested in taking the survey, you're welcome to go to the link in the show notes below, sure that your voice is heard and included in the data.

Jason: Andrew, I do wanna start right there with the book. What pushed you to write this book? Large Language Models for mortals.

Andrew: I was really not happy with the introductory materials for Python, and so I, I initially wrote that book, data Science for Crime Analysis with Python, and it's a similar sort of origin story for the large language models.

Jason: Well, how can people contact you if they have further questions or in how can they get the books?

Andrew: Yeah, so the book is available on my website. My website is crime [01:07:00] de coder.com. If you go to my website, I have a store to be able to purchase the book either in epub or paperback versions worldwide. So you can buy it and get it.

For folks listening, I did create a promo code. You can use Leap LLM, so L-E-A-P-L-L-M to get \$20 off of the paperback. I know from the prior Python book, a lot of folks like the paperback version, and I'll send you the Eub as well if you use that code. And then to just contact me, I have a contact page right on the site, but you could also just send an email to andrewWheeler@crimedecoder.com.

Jason: , So with the book then and we'll talk about the first edition that was in. Published in 2021 and then we'll branch into the second edition that was just published this year, with the book, did you know.

What goals [01:08:00] you wanted to achieve. You said you had chapters in mind and you had that but what was the questions that you were trying to answer?

Scott: For me it was all about a lot of the frustrations I had as an analyst and the things that I was learning.

And I felt that there's inconsistencies across forces.

And I don't think that's always the analyst fault. I think that's how they're used. You've got in some forces, crime analysts, there's some of their intelligence analysts is different terminology that seems to be sometimes interchangeable.

There's different skill levels, there's different recruitment. Processes in some forces. So what I was looking at was standardizing it, and what I wanted to do was, as a previous analyst manager who was involved in recruitment selection and training of analysts, I was very vocal about what my expectations were of analysts.

And I'd come through this era of descriptive. [01:09:00] Pieces of work that didn't have much impact. And then going through to more targeted analytical services. And I was very I was very focused on progressing the profession, and I still am, I think it's a fantastic profession. And there's some fantastic people out there.

There's some brilliant people out there, and there's a, there's different organizations. In America you've got IACA and IALEIA. And in the UK we've got ACIA, the Association of Crime and Intelligence Analysts and I'm one of the kind of organizing members of that as well.

So, I wanted to help standardize and nudge the profession along and have my take on it. Like, this is what I expect of an analyst.

This is what I think analysis should be. And it was kind. To really help forces. And and Stuart is very mindful of it as well. 'cause he'd worked with some analysts, he'd worked with good analysts and bad analysts.

So he, as as a customer of analytical services, he was quite keen on how analysts supports [01:10:00] investigations and how managers view analysts as well.

So we had two different elements from police manager side of different departments and organizations. And I was coming from the more practitioner side and that's how we came together with the book. So, so yeah. And it was part of the router Advances in police Practice and Knowledge series as well.

So they had an idea of some of the titles they wanted. And I think it, it was just the stars aligned for us that they got this new series coming out. Stuart had spoken to the publishers and I still had things to say. When I wrote the article in 2018 about evidence-based policing and analysts, I think that started to germinate at the back of my mind that there wasn't a lot of material.

There's a growing body of literature that supports analysis now. You go back 5, 6, 7, 8 years, there wasn't as much as there is now. There's some key, Steve Marin does some fantastic work around because he did a book called [01:11:00] Improving Intelligence Analysis as well back in 2012 which comes from more the military side.

And that's a fantastic book as well. And I love his work. And, I like to draw lessons from that side. So, apart from that, Jerry Ratcliffe, who I'm a big fan of, he's done some fantastic work. His latest, he's just got a third edition of his intelligence led policing book out, and that's phenomenal.

Phenomenal book. But his re reducing crime stuff is fantastic. And he is done an evidence-based policing book. And I would say to any analyst tho those last three books of his, you've got to read, they're just brilliant. The kind of the lessons, the things you can take away and you can apply.

And it's all about applied as well. Applied theory, applied practice. I think it's fantastic. And I just wanted to add to that collection of some really good stuff.

Jason: So you mentioned what you didn't know as an analyst that you learned as an academic. How did this concept influence the book?

Scott: there's nudges to [01:12:00] that, yes.

Jason: Yeah.

Scott: Because what we had to do and I found this difficult with the first edition and Stewart tempered some of what I wanted to do and I think I was trying to run with it. And what Stewart said was, we're trying to get people on board here, different forces, different countries are at different levels of analysis.

We need to reach the broadest base possible and bring them on to the book. So I suppose I was I dunno what the word is, it'll come to me in a moment. But I was very focused about a specific level and Stuart reeled me in a little bit and he was right to do so. 'cause I think I was hard lining what analysis should be.

And he was like no. We'll alienate some. Police force is, you've got to we've gotta talk about the value that analysts add. Rather than saying this is the gold standard as such, you've gotta be a bit more cognizant that there's different levels of ability. So there there's [01:13:00] stuff in there.

And I'm a big one for. Obviously I'm in academia, it is about reading and keeping up to date with research, which we talk about in the book. And I know others do that as well. And I think there needs to be more of that in our arena in for analysts. They need to know more about the being up to date.

Staying up to date with research is really important. And I talk about that in the book. And when I was in community safety, the I made sure that every two months my whole team had to go away and read a piece of research that was related to their job to summarize it and talk about how they could incorporate the methods and the findings within their work and over the space of two years.

I think we'd assessed something like 75 academic articles. And we assimilated a lot of that learning into our research as well. But you need good strong analyst managers to allow your [01:14:00] team the time to do that reading and to keep up to date. And I think that's really important because there's some fantastic articles out there.

There's some fat, I dunno how many analysts have read our book and I it'd be nice to know that new analysts will be reading it. But there's some really good pieces of work. Morgan B's stuff on social network analysis, absolutely fantastic. His book is brilliant. Who allows their analysts time to do the reading?

Because like I said earlier, a lot of analysts are spin in place. They don't have that time, so analysts need good, strong managers that are gonna say, actually, we're gonna protect some of your time to do research, to do readings around some of the key topics that are important in your role.

Jason: , On that topic, did you.

You get any pushback from the analyst ? I feel in the US there's I don't know how to quite describe it, but I do feel like the analyst, academic analyst reading [01:15:00] research that topic isn't very strong. And I think analysts that can have the mindset as like, look, I'm busy doing X, Y, and ZI, I don't have, I'm not gonna take the time to go read, a hundred pages in a journal .

I, I think there's a lot of that mentality here in the states.

Scott: Yeah. And I think there is here as well, to be honest. But this is where you need, like I say, good strong managers that are understanding around that. Now I think I, I was ideal for that because, I was studying a PhD, I understand academia well.

And I wasn't forcing them to do it. What I was looking at was to broaden our horizons.

So they were, like I said, they only had an afternoon to do it. And then what we used to do was we'd have, every two months we'd come together and spend an afternoon where we'd go through what everyone found and everyone had to do a 10 minute presentation on what they'd read. And what I was trying [01:16:00] to do was one look at. How does some of the findings influence some of our work? So what's being done around repeat victimization? And I remember one of my team, Hannah, she was doing some work around repeat victimization and some of the stuff she read reshaped how she did her analysis.

And she came up with some really good findings and so did Andrew and Lee did some really good work around some of their key topics. And what I found was that those that weren't. As academically aligned, actually enjoyed it really well because it wasn't just about the findings and the subject, it was also about the methods.

So I was saying to 'em, how have the researchers done that work? What can we learn from those methods? Was it qualitative, quantitative? What kind of methods did they employ to get the answers they got? Because that means we can shift our analysis to being more objective. And when you've got analysis that's more objective and you're looking to remove those biases from your research approaches, the output has more validity.[01:17:00]

And I think when you've got that. I think you can get more of a buy-in from the customer as well, because you can demonstrate we've taken a logical and methodical approach to analysis in a particular topic that has been done elsewhere. But it can help shape your findings so that you're reducing some opinion, but also you're challenging your staff as well.

Jason: Yeah. You mentioned that it was a mistake to write the first book. So

what kind of issues did you get into?

Scott: Well, well. Writing a book that was nothing to do with my PhD. So I'm writing a book, I'm writing my PhD.

I've changed careers. I was going through divorce I'd moved house, we had COVID and I was doing my teaching qualification at the same time.

Jason: Oh, okay. Okay.

Scott: So, yeah, it was only a mistake in that I was like, I didn't realize what it meant to do. It was a lot of work. But I also knew that once I'd finished it from an academic [01:18:00] perspective, I'd got an output. 'Cause sometimes we're judged on our outputs. So I'm, I'm really proud of it, but at the time I had a lot going on and I didn't really appreciate.

The level of work. I, there's a lot of blood, sweat, and tears in those books because I believe in them and I strongly believe in the role of the analyst and I will do what I can to support that role and to support the professionalization of it. And that meant a lot of early mornings, a lot of late nights writing because I believed in it.

And luckily I had Stuart there as my guiding star to get it done. So, yeah. And funnily enough, I was, I just found on my laptop the other day my, my work schedule for a while I was doing it. 'Cause I'm not a morning person normally.

Okay. I normally I fumble around in the evening till about nine o'clock and I feel as I could get a second wind.

But my best writing is actually in the morning. And Ken Pease, who's this, who's a very good friend of mine. He's a massive [01:19:00] academic psychologist criminologist, who's published a ridiculous amount of work. And he's a fantastic friend and a mentor. And he told me, he says he work works best in the morning, I should try it.

And I was just like no. I'm a night owl. I'm a owl. He says no, try it. So while I had all this going on. I actually started getting up at about half, five, six o'clock and then writing till nine o'clock, then having a power nap, and then doing my day job and then writing my PhD in the afternoons.

And actually some of my best work was written at like half, six, seven o'clock in the morning and I was like, wow. Actually I never knew my brain. Be your brain's like a battery, isn't it? It reduces over the day and and one of my colleagues in a different department, he shuts himself off the mornings.

He does all his research and his writing in the morning and he says, when my brain's got no capacity, that's when I put in, that's when I go to meetings and deal with all my admin, which is usually about two, three o'clock. So it's I've refocused how I, how my working day [01:20:00] is.

Jason: Let's get into the second edition then.

So what was the motivation to do the second edition? Because obviously you must have left something on the table in the first edition, so you wanted to do some more this year, right?

Scott: Well, to be honest, it was the publishers that came to us. And you know what when it, when we did it, 'cause Stuart said, that's it, I'm properly retiring now.

I'm not doing anymore. And he's been working with a colleague of mine, Rebecca Pian. She's she's on a big research grant at the moment. A big million pound research grant looking at intelligent sharing across the world. And Stuart's working with her on that. So he said, I'm just gonna help Becky out and I'm just gonna slowly ride off into the sunset on his motorbike 'cause he's a big motor guy.

Anyway the publishers came to us after about 18 months ago and they said the sales of the book are doing really well. The holding every year. And I was like, well, that's good to know. That's good to know. 'Cause we kinda see that. But [01:21:00] you I didn't know what good was in relation to it, but they came to us and said, really?

He is really good. And I remember joking when it came out and the joke with Stuart, I said, well, what about when we get a second edition? And he kinda laughed it off. And anyway, we get the the phone call and we go online. I said, Stuart, do you wanna do this? And he was like I'm not so sure, do you?

And I said, well, I don't wanna go over a old ground. I want to do something new. Anyway, we spoke to the publishers and they said, you've got strong sales. It's doing really well. So we think now's the time for a second edition. Are you interested? So we spoke through some ideas and like I said, there was some stuff that I felt was missing from the first edition and I'd been doing some research as well around effectiveness of analysts.

I've done some research with two different forces and I'd run some focus groups three focus groups with a number of analysts all about. Their trials and tribulations and what they need, et cetera. And this was a separate research project that I'd had [01:22:00] funding for. And so I spoke to Stewart and he said, it's a big thing to have a second edition in academia now.

So next thing you know, yeah we're gonna do it, but only if we can do something. We didn't wanna just do the same kind of thing. So Stuart had been working with Becky on the information sharing. So we had some really good new material. I had all this material that had presented at a national conference for the investigator last year.

We weaved all that in, but we updated it as well with 'cause it's more around new technologies in there and the changing face of data and technical skills. And one thing that I've wanted to nudge as well is the recruitment process for analysts. The recruitment process needs to evolve to identify the right skills to ensure that analysts over the next few years are able to deal with changing technologies, new data sources.

So that kind of is weaved into the book as well. [01:23:00] So it was a really good opportunity. It was really nice to know that it was doing well. But it's an opportunity to layer in new research so that it wasn't just a rehash of the stuff we'd done previously. And in some parts of it is a complete rewrite.

Jason: Yeah. And and how do you feel about it now? Do you feel that you've answered the question? Or do you feel that maybe a third edition is in your future?

Scott: Well, a third edition would be down to the publishers. Depends on sales. So

Jason: yeah.

Scott: Go get the listeners out there buying it.

But yeah, we, after this one, we, both of us independently said to each other actually, we're really pleased.

We're very happy with the first one by all means. And obviously other people are as well. But yeah this second one, once it came through, I was like, I'm really proud of that. I'm really pleased with, there's some things in there that I really wanted to say, but I had the evidence to say it.

'cause I've done this work with analysts and I felt, like I said, with the CSE work, I felt that the analysts voice came through this edition [01:24:00] as well. Not just my voice and not just Stewarts as a practitioner, as an a police manager, but also we got, we, we've laid in the voice of analysts as well. So, yeah, that, that was, that's special for me because I don't think in wider literature the analyst has a strong voice. And that's something I would like to change. Certainly when I talked about Nina Cope's work, and it was a good research, but a lot of early research around analysts was about researchers critiquing analytical standards.

And I felt that analysts weren't able to have a say in that. So for me, I think this is a bit of a response to some of that early criticism that analysts can have a say about what the future should be and how intelligence analysis can be improved based on some of their comments.

Jason: So, so then obviously the target audience for these two additions are, one is the analyst, but also it sounds like [01:25:00] you're also talking about just executives in the police department in general for this book.

Scott: Yeah. Well, we've, and this is where Stuart tempered me on the first one, 'cause I think mine would've been more geared towards. Analysts themselves. What Stuart's done is helped me bring it back and both additions can appeal to

new analysts, ex analysts that have been in the job for a long time but also to students of intelligence studies and of law enforcement.

And as managers, but also from other agencies as well that might work with analysts. So, from a marketing perspective, that's great, but also from an inclusion perspective around co-production of work I think it works on that level as well. I, and I mentioned as e and got a big shout out to Keith Jackson.

He's pushed Assia over the, I dunno if Keith but there's the group that sounds

Jason: familiar.

Scott: Yeah. He's been pushing it for years and years. And it must be hard. Must be [01:26:00] hard what he is been doing. But we've had some Oh yeah, I know,

Jason: I know Keith. Sorry.

Scott: Yeah they've had some really good results in the last few years.

They've done their own podcasts. Paige Ingal was doing some podcasts and Danny Williams and Helen Taylor and Steve French, and now Jeremy Levin as well. They've been working on delivery of web. Webinars as well, and they've been really popular. Selling out within hours. So Keith and that team have really driven some good stuff for analysts and we, they're all, we're all volunteers, we're all volunteers, but we're all really focused and keen on progressing the profession of analysis.

And Alexis Cran, she was involved in it. She was a principal analyst at Police Scotland and she's been in there for decades and done some fantastic work as well. So that group of people have worked really hard in sharing their experiences, but trying to nudge the profession along as well. And they've been instrumental [01:27:00] in helping me assess where that book needs to go as well.

Jason: Alright. Alright. As we finish up here, 'cause I do want to get to personal interest. I just have some general. Questions for you. Some theoretical questions if you will.

. , I'm curious if you could change one thing about how police agencies use analyst, what would it be?

Scott: Oh, how they use the oh, you sprung that one on me, Jason. Yeah.

Jason: Yeah.

Scott: How they use them, right. More, as much as possible how they use it. I think we need to invest more in our investment of analysts. To get the most outta them. That's what I would say is, you've got an absolutely fantastic profession, but to get the best out of it, you've got to invest in that.

And that is in training in time. So like, say the reading and the research and give them access to that as well.

Jason: If if a police chief asked [01:28:00] you how to build a truly effective analyst unit from scratch, what would you tell them?

Scott: I would give them the website details for my book on route Ledge and say if you go around this time of year, I think there's a reduction.

I think you can get a sale. Yeah. Yeah, no, that, that is a really good one. And I'll probably get to be a bit more seriously. Yeah. Is. The book and the idea, you mentioned that we've got a master's program in criminal intelligence and data analysis running.

There's not enough educational pathways for analysts, how do analysts find the job?

You get people that are promoted within, you get 'em from coming from different disciplines. But. Early on when we spoke about research and knowledge how that where is all that? There's a lot of lost knowledge out there. We need more educational pathways, I think, to support analysts and I think police chiefs need to work with other agencies and with academia in developing intelligence academies, in developing [01:29:00] programs to support those that have aspirations to be analysts, but also to support the professional development of those already in the job as well.

And that might be 'cause the program we run. It's got optional modules specifically geared for different kind of analytical functions, and we run it between our law and criminal justice department, but also our computing department. So we've got modules on machine learning, big data, emerging technologies, and some of my students have recently been looking at how they can develop programming in Python to do crime analysis.

So, yeah. Please chiefs, if you're listening, get some get some students or analysts on our program. But also work with academia as well and and other providers in developing academies and educational pathways to support aspiring analysts but also your existing analysts to get the best out of them.

And like I said to the previous question, that investment [01:30:00] as well, because analysts deserve it, because a really good analyst will save you an awful lot of time and they will improve the efficiency and effectiveness of the police organization, but also help you direct your resources into where they're gonna have the biggest impact, whether it's dismantling an organized crime group or reducing repeat victimization.

Jason: Yes. All right. This, and this is just another just another fun one. I, which, which was harder improving analytical practice inside the police agency or improving analytical practice through research and publication.

Scott: Oh, well, I would've liked to thought it was the latter, but I don't know who reads it.

What I will say, is frustratingly some of the things I've said and some of the things that are in the book I tried to do while I was in the job. And since leaving more people have asked me what my answers are to some questions and when I've told them the same things I told them in the [01:31:00] job.

They're listening to me more now.

Jason: Yeah.

Scott: And I don't know whether it's 'cause I'm in academia or because doctor is at the front of my name. But yeah, I'm not saying anything different to what I said when I was working there and I'm just thinking, why are you listening now? Is it because you think I'm an outsider looking in?

I don't know. So I think it's the latter. I mean I, we've had awards, we've done really well, so we must have done something right. But holistically, I think it's, when you leave, people think, seem to think you've got the silver bullet and I'm not telling anything different. Yeah. It's been bizarre.

That has very bizarre.

Jason: Yeah. One more, and it's along the same lines which was harder getting. Police to trust analysts or getting analysts to trust research and evidence-based policing.

Scott: Oh, crikey. That's a good one. That is a, I think that's fairly even. I think that's fairly, 'cause I teach evidence-based policing so.

I'm a big advocate for it. And I think it's a bit of, I think it's 50 [01:32:00] 50 though, because I remember speaking to some analysts. I re I remember one I won't mention 'cause he might listen to this. I hope they do. Anyway. And they were doing this thematic report on a particular subject, and I won't say the subjects that give it away who it was.

And I had access to all this academic research and I downloaded it all. And I sent it through to 'em. I said, oh, there's some fantastic pieces in there. This will really support your thematic work. And two months later I said, how did you get on? Yeah, I didn't have time to do all that. And I was like, what?

And he said, yeah, that's what academics do. That's not what we do. And I was like, oh man. And then some swears came out. So, so that was, you know what I'm saying about your managers need to build in that time to help your staff keep up to date. And again, Mark Evans talks about this as well.

You've gotta keep up to date with research and you've got the, have the aptitude to apply research to new real world problems as well. And I think it's important.

Jason: Very good. Alright, let's finish up with personal interest [01:33:00] then. I find it fascinating. , You're, you coach soccer you talked about soccer.

You, you play soccer, but you have a son that's got into American football. Yes. , And to help you learn. American football. You have joined a flag football league.

Scott: Yes, that's correct. Yeah, so my youngest allowed, my oldest used to play rugby. My youngest, he's I coach his soccer team.

And sometimes I think teaching students and working with analysts is easier than dealing with under 15 year olds in soccer. But that's another story. But yeah, he does American football, he's done flag, and now he's in the under sixteens contact team,

Jason: Uhhuh,

Scott: and he absolutely loves it. So.

A year and a half ago I was in this end of season event, parents v kids and I loved it. And we had a number of different matches and we had a parents' team versus a parents' team. And I'd like, and I'd like to point out here, I scored the winning touchdown [01:34:00] in that

Jason: Nice.

Scott: And I loved it.

And then the following season, so this is February last year, 2025. 'Cause they train similar time. So I'm watching Samuel play in and practicing and I walk over to the adults and they say what do you do to try out? And they said no, just join. We are looking for numbers. And I'm like, all these parents just sat watching the kids playing.

And I'm like. Just join in. Just join in. So, so I joined in and yeah, I'm into my second year now and I absolutely love it. One, I love the game. I love the, I love sport. I'd rather be playing baseball 'cause I love ba, I'm a big baseball fan. But yeah America football playing it is a high.

We've got training tomorrow and I can't wait to go. I love it. Great group of people. A great sport. It'd be interesting to see what happens after the Olympics in 2028. 'cause flag football is gonna be there.

Jason: Yeah.

Scott: But yeah, I'd encourage anyone to play is it is like chess. It's like a chess game, isn't it?

With your roots or [01:35:00] routes. Love it. Can't say enough about it. And I'm the oldest player on our team. I'm 55 and for me, I'm trying to keep up with the the younger players. So I'm proud of being the oldest. I do a on Sundays, but yeah. Love it.

Jason: Yeah. Yeah. Now do you feel that you had to play it in order to truly understand it?

Scott: It certainly helps

Jason: because, you didn't grow up with, you didn't grow up with it, right? Like you probably could coach soccer. If you've watched enough soccer throughout your lifetime, you probably could build your coaching skills in soccer. With without playing it, per se.

Yeah. But because it's so new to you. The best way was to actually play.

Scott: Absolutely. Yeah. I've watched soccer all my life. I've played in various teams in Saturday leagues, Sunday leagues, and all sorts of stuff over my time. So, I've worked with different coaches and it is to, to the English soccer is what American [01:36:00] football is to, to you guys.

Jason: Yeah.

Scott: That you live with it. So, it did take a while to understand the intricacies of it, and I'm still learning. I've just bought myself a risk coach because I kept forgetting my root the other week.

And but that really helps, I've learned so much in the last 18 months. But, I did watch it back in the nineties channel four, one of our TV shows used to show some of the games, so I remember the fridge

Jason: yeah, Chicago wears. Yeah.

Scott: Yeah. So I remember watching him, but at the time it was shown, they didn't really explain it.

They just put the game on and you had to pick it up. So, but I think at the time I was probably watching more ice hockey than anything.

Jason: Yeah.

Scott: So, yeah. But playing it I, if I've had a really tough week at work. And I go, it clears my mind, but after about an hour, my brain is just exploding, learning which roots, we're doing trips, right?

Slants and like, oh, which am I your ex? Oh what am I doing? What am I doing? So it's, yeah, it's I was gonna show you it, [01:37:00] but this is audio, isn't it? Yeah, so absolutely love it. One of the, a brilliant sport, and I think American football, the more you learn about it, the more engrossed you get in it.

And I think the more you enjoy it as well.

Jason: Yeah. Yeah. It's definitely fantastic to watch on tv and I think that's part of a popularity too, and a lot of people, yeah, a lot of people just watch it. They don't play it at all and never have played it, that's, did

Scott: you play?

Jason: No, I, I played backyard. We would tackle each other without any equipment on right the way. We would play in our backyard, but I never had put on equipment helmet and whatnot. I played in a couple flag football leagues when I was in my twenties, so, but yeah.

But I but I've grown up watching it, and I'm a big sports fan as well, so I I try to, I usually have keeping up with all the sporting news that's going on.

Scott: Who's you support? Who's your team?

Jason: Tampa Bay Buccaneers.

Scott: Oh, that's [01:38:00] our coach. He's a Tampa Bay Buccaneers fan. Yeah, Ian.

Ian Nicholson. He's a big fan of him. I support the bills 'cause it's a family thing. 'cause we've got family in Canada. But my son, he supports the Ravens.

Jason: Oh, okay. Well I'm sorry to hear that. Tell him that. I don't like the Ravens.

Scott: Well, the other one supports the Eagles. So this is a three way split in this house.

Jason: Yeah. So. All right, very good Scott. Thank you for all this time. Great perspective both from the analyst as a practitioner and academia. And congratulations on the books and the second edition. Here's to a third edition.

I'm wishing you a third edition. But thank you seriously for your contributions to the profession. This has been great. Thank you. Our last segment to the show is Words to the World. This is where you can promote any idea that you wish. Scott, what are your words to the world?

Scott: Be teachable. Never stop learning. And I think the day that you wake up and you think I know [01:39:00] everything, just stay in bed.

Always be teachable. Always be prepared to learn. Don't be closed off. And I think that's really important for analysts as well. Don't be closed off. And I'd also say to analysts, get off your backside and away from your computer. The answers are not all on your computer. Build relationships.

Go and speak to the cops. Go and speak to other agencies. Get yourself known. Understand the context of data, why it's being collected by yourselves and by other agencies as well. And don't be data led. Make sure that if you formulate a question and then see what data you need to answer the question, don't just turn your computer on and say, what have we collected?

So be teachable, get from behind your desk, build those networks and develop questions to answer, and challenge, use competing hypotheses. Richard Sheer of really helpful in developing knowledge because the core thing of an analyst is developing knowledge, developing insight to [01:40:00] push and direct activity and resource and that's how you're going to do it.

Jason: Very good. Will you leave every guest with, you've given me just enough to talk bad about you later, but I do appreciate you being on the show, Scott. Thank you so much and you be safe.

Scott: Thank you.

Mindy: Thank you for making it to the end of another episode of Analyst Talk with Jason Elder. You can show your support by sharing this and other episodes found on our website@www.podcasts.com.

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