



Sean Coutts

Interviewed by

Jane Bird

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Via Zoom

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Welcome to the Archives of Information Technology, where we capture the past and inspire the future. It's Monday the 21st of February 2022, and we are talking on Zoom, as has become customary during the coronavirus pandemic. I am Jane Bird and I have reported on technology and the IT industry for newspapers such as the Sunday Times and the Financial Times since the early 1980s.

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Our contributor today is Sean Coutts, Director of Technology at Graphium Technologies, a company which transforms unstructured research data into visual insight. Graphium is a high tech start-up funded by the Alacrity Foundation, an organisation set up to support talented young graduates turn their ideas into commercial reality. It was established by Professor Simon Gibson and Owen Matthews, with the support of Sir Terry Matthews, the Welsh Canadian tech entrepreneur and Wales's first billionaire. Alacrity focuses on young people in innovation, because of their eagerness to learn and adapt, lack of external commitments, lower costs, openness to new ideas, and familiarity with the digital world.

[00:01:20]

Sean, welcome. I'm very much looking forward to hearing more about your life so far, experiences as an entrepreneur, and insights into the importance of visualising qualitative data.

Thank you very much.

So, if we could begin at the beginning. So you were born in October 1993, in Belgium.

I was indeed, yes. Yeah. My parents had been living in, across Holland and Belgium for a few years due to some work commitments, and yeah, happened to have me in a small town called Leuven, which I've actually, I've never been back to since I was born, but for my birthday last year my girlfriend actually organised a trip for me. So I'll be, I'll be heading over to my birthplace in a couple of weeks' time, which will be nice.

Yeah. So, you see yourself as very much a Brit, do you?

Yes. Yeah. Yeah, absolutely, yeah, I've, yeah, been over in the UK for as long as I can remember. I think, yeah, I think we moved back over here, I think when I was about three months old, so... My, my birth certificate is in Flemish, which was a, when I had to go and get a new passport at one time was a, was an interesting process, that I had to go and find an official translation somewhere. But, no, yeah, I've been, been in England my entire life.

Because you have got Spanish, Spanish grandparents?

Yes. Yeah, my mother's parents are, well, my mother's dad was British, but he lost contact with the family when she was a child, but her mother was Spanish. So on my mum's side there is a lot of Spanish family. They all live, mostly in Marbella, in the south of Spain, where my, my great-uncle has been running a butcher's shop in the market for, I don't know, the past 50 years or something, which has been, it's still going strong.

So a very different lifestyle from you, from that family background?

Yes. Yeah.

[00:03:24]

So, so how was your childhood? Did you enjoy it?

Yes. I mean I, I grew up in a small town called Farnham, in Surrey. It was a, yeah, it was a, it was a lovely small town, a lot of greenery. I don't think I really appreciated it as a child, because it didn't seem like there was that much to do, but going back there to visit now, it's good to see what a lovely little market town it is and was. Neither of my parents actually live around that area any more, so I haven't been back there in a little while. But, yeah, yeah I grew up and went to school there, and then moved down to, to Wales for university.

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So you went to, you went to the local schools, you were state educated. And was that a positive experience, did you feel that your talents were, were sort of recognised and developed? How was it?

Yes. Yeah, I think it was a positive experience. I mean, being in Farnham in Surrey, a lot of the people that initially went to primary school, ended up going to private school, and so I kind of had a mixed, a lot of my peers that I grew up with as a child weren't the ones that I went to school with in secondary school. But the secondary school education that I had in Farnham, at Weydon School, was, was like, top of the line, it was a really good school to go to. And, yeah, I had lots of opportunities there. I even ended up doing an AS Level slightly early, alongside my GCSEs. Probably wasn't my highest grade, but it was, it was nice to have the opportunity there to, to do a bit of, a bit of more advanced education earlier on. And yeah, then went to college in the neighbouring town of Alton, where I did my A Levels.

So, did you have particularly inspiring teachers? I mean, how did you get on to tech in the first place? Because, you did do, you did physics and, and maths A Level, didn't you, as well as design and technology. Was that a result of inspirational teachers, or did the drive all come from you?

Yeah, I would say the drive for tech was more myself. I've always been a massive nerd. Growing up I was always playing video games, fiddling around on the computer, figuring out how to, to, how to get things working on the computer on my own. My dad had previously been a software engineer and went into project management, so I feel like I probably picked up a bit of inspiration in that area from him. And, my... Yeah, Going into... Design and technology was definitely a big passion of mine at school. I really enjoyed design. And actually, when I was originally applying for university, I was looking to do architecture, and so, I've had a, [laughs] a bit of a process of going from that to ending up in computer science. But, I, I wasn't the strongest artist in the world, so I, I kind of went down more the design and technology and being able to design and build products. I always really enjoyed that, and I think that's something that I've kind of brought over into, to start-ups and, and building software as well. And when I was originally applying for university, I was looking at product design engineering courses, because I wanted to be able to do

a course that was not so much focused on just kind of drawing and designing products, but actually figuring out how to build them as well. And that ended up actually leading me to a mechanical engineering course at Swansea University, which had a lot of, they did have a product design engineering course, but a lot of the modules weren't really ones that I wanted to do at the time. It was kind of a split course between product design at Swansea Metropolitan University and then the engineering parts at Swansea University. And I kind of saw that I could still do mechanical engineering and get a strong degree that would give me a good foundation in a lot of different things, that still might lead me down a, a kind of, a path where I'll get to design and build things, and make complex systems work as well. So, yeah. But in school, I was definitely in the, yeah, the design and technology department a lot of the time. I actually, when I was in secondary school, we had sort of student representatives, our equivalents of prefects, and I ended up being the student rep for the design and technology resistant materials department, and as part of that I organised a, like a, a little gallery showing that, in tandem with some of the textile students, they put on a fashion show of the work they had been doing, and we set up a gallery for all the parents to come and see all the work that we had produced over the year as well, which was a, a really fun thing to be a part of.

[00:08:03]

So, when you were at university then, you switched from engineering to, to material science, didn't you, is that right?

Yes. Yeah, so I had... Yeah, I'd started out on mechanical engineering, and, to be honest I was struggling a little bit on mechanical engineering with some of the modules, and I had, I had failed one of my modules during the year, only by a few marks, but then I failed the resit again in the summer. And I, it was a core module that I would have had to take a year out and resit, and carry on with. I was still, still on a 2:1 average, so I wasn't too concerned about my overall university performance, it was just a, yes, I think it dynamics or something. I can't remember now, it's quite a while ago. But, I then found out there was the opportunity that, because of the common first year, that I could switch to material science, which had been my strongest grades, the common modules that I had had for that. And it had some of the, some of my favourite lecturers as well. So my, my first-year tutor was one of the, I

think he was the director of teacher and learning – teaching and learning, for material science. And I had really enjoyed the lectures that I had had with him before. And so it seemed like a... I had to do a lot of modules sort of, yeah, from the start of second year and spend an extra year at university, but it was ultimately the right decision. My grades definitely went up, and I enjoyed the course a lot more. And, yeah, there was a lot of interesting modules. There was opportunity to work with like, 3D printing, and I ended up doing a really interesting dissertation as well on that course too.

What was your dissertation on?

Yeah, it was, ‘Can we re-use and recycle the materials used in perovskite solar cells?’ So they were like a, a new type of solar cell that was being kind of trialled that was... The reason it was a little bit controversial is, it was a lead-based solution that was kind of dropped on to, on to glass, and, obviously being, we don’t want lead going into the ecosystem, and being able to effectively recover the materials that had been used on the solar cells once they had kind of been worn out and their lifespan had, had gone under, was an interesting area to look into. And because of the, the perovskite solution, it meant you could essentially just dissolve the solution off the glass that it had been put on to originally. My dissertation was not thoroughly conclusive, but the, the materials can be recovered effectively, but it didn’t really appear that they could be reused to the same effect as, as a fresh batch. But yeah, it was certainly something very interesting. It was very chemistry-based, which I hadn’t really done much of, so that was, that was quite a big learning curve, and a lot to get to grips with in, working in the lab with pipettes and very small volumes of liquid, and, yeah, yeah it was a really interesting thing to be involved in.

[00:11:03]

And so, you did your, you then went on to do an MSc at Cardiff University?

I did, yeah. So, when I initially graduated, I got on to the Civil Service Fast Stream. I had applied for a number of options on that, and ended up being offered a position on their finance programme. Finance was not my, I think it was the bottom of the list on my choices, but, it was a grad scheme that I was really interested in going on to, and I

figured I would, I would give it a go. So, I started there at the Home Office in an accounts production role, whilst doing my accountancy exams as well. I kind of knew going in that it wasn't necessarily exactly what I wanted to do, but being kind of, the grad scheme had options to go along a lot of different pathways, and so I thought I'd dip my toes in and, and see how I felt with it. I very quickly decided that, yeah, accountancy was not what I wanted to spend my days doing. And I, I had always wanted to go into, as I was kind of getting towards the end of my university career, I kind of realised, I wanted to go into project management. I had done a little bit of events management and starting to put together sort of big events for people to do, and I quite liked that kind of organisational area, and thought it was something that I was doing quite well in. And so while I was at the Civil Service, I was working up in London, and my girlfriend was down in Bristol, so I was looking kind of for an excuse to move down, and, to get out of the role I was in. And, yeah, so I found a project management job in a small office design and build firm. So, they would essentially take, either, completely new offices that had just been put together, [inaud] like a landlord but just have the bare minimum, and then fully kit them out with the, you know, the walls, the fixtures, the fittings, the electricals, the mechanical services and so on. And, yeah. Or, take existing offices, strip everything out, and build a new one for the tenants. So it was kind of a construction-based role. And I, yeah, found a, an assistant project manager role at this firm in Bath. So I moved down to Bath for a few months. So I was a lot closer to my girlfriend, I wasn't spending like, four hours on public transport getting across to Bristol every couple of weeks. And I really really enjoyed the role there. It was a, it was a company of a lot of people that were a similar age to me. It was really exciting and really fast-paced.

Was this called Interaction?

Yes. Yeah, Interaction. Yeah. And, yeah, and I got a lot of opportunity to learn a lot of things very quickly that I didn't have any experience with. I was working on some quite big projects quite early on. And, after a few months there, I got a promotion to run the aftercare department. I say run the aftercare department, to begin with it was just me, but, it was still, I was wholly responsible for sort of managing the existing clients who had fit-outs done with the company before, and any kind of modifications or additions they might want in the future. There was also a lot of fixing where,

where things had gone wrong, and getting emergency plumbers and stuff like that. But again, yeah, that was a very fast-paced role, there were a lot of customers to manage. And, yeah, it was a very, very busy job.

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But... Project management was something I had, yeah, I had wanted to go into, but ultimately I was looking to go into sort of project management in kind of a digital role. Like, I had always been interested in tech, yeah, then kind of a passion of mine going throughout. I had done, like, a few random coding courses online throughout the, the years, nothing, nothing major, I hadn't really gotten involved with it. But, I was working quite a lot of hours in the role that was I in, and I kind of, yeah, knew that I, project management I was enjoying, but staying in construction wasn't really where I wanted to go, and the kind of options I was looking at were either going for, for more responsibility in a construction role, and continuing down that career path, or I felt I was kind of at the age where, if I still wanted to make a career change, that now was the time to do it.

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And, yes, so I found a, there was a course at Cardiff University which, living in Bristol was quite commutable, it was only about an hour on the train, well, forty minutes maybe. And, I had a little bit saved up at that point, and felt that this was a, a good time for, for me to make that leap. And, the course looked really interesting. It was a, it was a conversion course that you could come to from, from any background, and you would get taught the basics of computer science and computing. So, yeah, did modules in the basics of some like, object-orientated languages, and scripting languages, like Python, and a bit of Java as well. But it was a really good course for, for introduction to computer science. And, yeah, and honestly, that was, yeah, that was the best decision I ever made. I have, like, since I've started coding, I have absolutely loved it, and I really wish that I had pursued it sooner. I actually, when I first was doing my A Levels, and when I was making my choices, I put computing down as one of my choices, but ultimately decided that, I think I switched, I initially switched to doing further maths as well, and then while I was doing further maths I was like, this is too much maths. [laughs] And, so ended up just doing, yeah, design technology, physics, and, and regular maths. But... But yeah, yeah, I went to Cardiff, completed my course there.

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That was kind of a strange experience, because, it was halfway through the course the pandemic started, so, ended up doing a lot of the course sort of online, rather than in person. Which to be honest, since I was living in Bristol and commuting in, wasn't that big of an imposition for me; it kind of made my life easier in a lot of ways. But it did mean that I kind of didn't have the... It was a very different experience, going and doing my master's, compared to when I was doing my undergrad. I didn't feel particularly involved in university life when I was doing that; it felt more that, yeah, I was just, just going in to do the course and kind of coming home. Which was fine. I mean I, I had already had my university experience, with an extra bonus year thrown in, so I had, I had made the most of that when I had it. But, yeah. And then...

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Yes, so that was really consolidating and building on your, your computer base really. I mean it's, it's an interesting background isn't it, because lots of people either start, if they're quite techie they start being mad on computers from quite a young age, and don't look anywhere else; whereas in your case, you sort of went at it rather, in a rather roundabout route. But maybe that's quite a positive advantage if it gives you a broader, a broader basis for where you're going to go next.

Yeah, I've, I've certainly found that. I feel like the experience that I've gotten from, from working in roles outside of software engineering... I mean for one thing, they've certainly increased my confidence in speaking to people. I wouldn't say when I initially graduated that I was anywhere near as, as comfortable or confident doing like, public speaking, or chatting to new clients, or any of, any of those kind of, more interpersonal skills. Not that I wasn't particularly sociable. I think, when I was at university I certainly came out of my shell and, and got a lot more confident, especially being involved with societies and, and things like that. But, yeah, working in the real world, working for smaller companies and getting to grips with all areas of business, I think put me in a really good position to, to manage both technical aspects and, and working in teams, and working in client-facing situations, which, kind of working in a start-up and pursuing an entrepreneurship role have been really really helpful.

[00:19:06]

Yes, absolutely. So, then you sort of got involved with Alacrity after Interaction. So how did all that happen?

Yeah. So, that was at... So while I had been doing my degree, the conversion course that I did was a, was a full-time course, so I had been doing that degree for about a year. And Cardiff had a Careers Fair, and, although I couldn't... I think I was working at the time and I couldn't, couldn't attend the Careers Fair, but they had a list of all the people who had attended online. So, I browsed through it to see if there anyone that I wanted to get in contact with, and then yeah, saw the Alacrity Foundation. And it was, kind of one of the other drivers of me going into tech was that I had, whilst I had been working for a small business, I kind of realised that I really wanted to start my own business and work for myself, and tech seemed like a really accessible way to do that, because you kind of, you have all the tools there that you can build something of your own, without necessarily a massive investment to begin with. And... So, it was one of the drivers, and the entrepreneurship course that Alacrity offers really appealed to me. So, so I, I got in touch with them, and, and found out that, they had an open day that was happening kind of, the week after. So I, I then headed down into Newport for the day for the, for Alacrity Foundation's open day. And, yeah, we were given a presentation by James, who is the, the programme manager at Alacrity, on kind of, all the things that the course encompasses, and how it works, and what the aim is to get out of it. And, everything he said, I was like, that is, that is exactly what I want to do, this sounds, sounds absolutely perfect for me. And, given the opportunity to, to be funded for fifteen months to explore entrepreneurship and have a go at building a product and a team, was a, was really appealing. I can give you a bit more of an overview of what Alacrity is, if that's helpful, as well.

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Yeah, I think it would be very helpful, yes. And, why... Well, just before we do that though, what you said, you decided that you wanted to start your own business, I mean, could you say a bit more about what made you want to do that?

Sure. Yeah. I think it, it was kind of when I was doing the, the aftercare role that I was working in, I was kind of managing these projects from start to finish. I was doing all my own accountancy as well for that role. And, and kind of seeing... A lot

that I was seeing, the revenue that was generated from the project, [laughs] compared to my salary. And, I was like, well, why am I doing this for someone else? Like, I could be doing this for myself. And, also, I mean, the money I don't think is, is the main thing that drives me; it was more the, what I really liked about that aftercare role was that I had autonomy, and that I had, like, decision-making responsibilities and that I was able to, to do things in the way that I saw fit, which was a, a nice position, to be, to be trusted by my managers to, to take on that. And I really enjoyed that kind of sense of responsibility and being able to, to go about processes in the way that I felt was best. And that, yeah, kind of made me think, OK, I, I could do this, I want to do this, I enjoy all of this kind of process. And... And I feel like it's, it's something that kind of gives you a bit more of a creative outlet in kind of work, that you can, yeah, you can choose the direction, you can choose the strategy, and you can focus on what you think is, is valuable and, and personal to you. Which, yeah, is, is a really nice position to be in.

[00:22:45]

Yes. Yes. OK, so... Yes, so let's... So if you talk a little bit more about Alacrity, and what it offered, and perhaps why that would maybe be more appealing than the more traditional route. I mean Cardiff University has its own tech incubator doesn't it, it has, as do lots of universities that can, that can help their grads, you know, commercialise their ideas. So, not just what Alacrity is, but maybe how it differ compared with a more conventional university incubator.

Yeah. To be honest, I, I didn't really know much about incubators when I was going into it. When I was originally browsing jobs, I was applying for, like, graduate roles at some of the, the bigger software engineering firms, like, I had applied for some at Amazon and Microsoft and, and then some smaller kind of, software engineering firms in Bristol. And... So, when I was initially looking, I wasn't looking for an incubator; it was more a case, I saw it, and I was like, oh, that sounds perfect. And... But I think, yeah, where Alacrity does differ, it's not... I felt quite junior in tech. I mean, I had only been doing it for about a year. I didn't feel that confident in my coding skills. I felt reasonably confident, enough to, to you know, sit assessments and, and so on. But, yeah, it wasn't something that I had any commercial experience doing. And what Alacrity offered was a, a boot camp at the start, and then mentorship

throughout. So it was sort of more of a, a guided process where you do have someone there on hand to, to help you when you get stuck. And, you know, they've got a lot of experience taking other companies through the same route. So that was something that I, like, valued and trusted.

[24:33]

The other kind of aspect is that you didn't have to have your own idea. I mean I do actually, like, I've got a notebook full of random tech ideas that I'd love to pursue one day, but, but having a, they offer kind of, a partnership. So, the way it works is, a group of, a cohort of graduates come in, and they are from a mixture of technical and business-related backgrounds. In the cohort that I was in, it was more weighted towards technical founders. So we had a big group of, of software engineers, or people who had done kind of, more, maths-based, like either physics or maths degrees who had done a bit of Python programming, and were keen to, to learn about web development. And then we were partnered with a selection of business leads as well who had often done business management. Although some of them have come, from various backgrounds as well, who just had a passion for, for start-ups and entrepreneurship. And, throughout the, the process of the, of the course... So, you do an initial training boot camp where the business side of stuff gets covered as well, so it uses something called the Disciplined Entrepreneurship Canvas, which is kind of a guideline that we kind of follow to help us make sure that we're, you know, building something that, that is going to function and make money and be sustained and, and carry on going over time. But, the idea is, we get put into teams from the people that we've working in. It's normally teams of four or five people, with generally one business lead and the rest being kind of, tech leads, but often those tech leads are kind of a bit more of a hybrid role, so there were quite a few of us who had come in, and although we were software engineers, we had quite a passion for entrepreneurship and business and some more of the, the soft skill side of the things as well, and, and wanted to pursue those while we were there. So, yeah, so you get a mix of graduates with, from different backgrounds, different strengths. And, those teams then get partnered with a, they're called a, a strategic partner in the programme, and they are generally, someone from an industry, or a public sector department, who has a problem that occurs in their kind of day-to-day business, or in their company, that they feel a tech product could exist to, to solve that problem, to help their, help their day-to-day process. So there's kind of a wide range of, you know, there's like, legal sector,

finance, public sector, charities. There's, there's all sorts of people to choose from, and that we get to, get exposed to at the beginning, and, and hear their challenges and, and kind of, ideate on whether, whether we can build something around that. And, yeah, and that really appealed to me, that there was someone with a need that we might be able to solve and that we might be able to make their lives easier. Which I think, yeah, the Alacrity Foundation I refer to as like, demand-led entrepreneurship, which is, yeah, you've already, you already know that there's someone willing to buy before you start making the product. I mean, that's... You know that they're theoretically willing to buy. You've got to build the right thing as well, which is a, a whole challenge on, on to itself.

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Yeah, so those are the kind of aspects that, that really drew me to it. I also really liked the fact that it was kind of trying to build a, or contribute towards a kind of hub of tech entrepreneurship in South Wales. Having gone to a university in Swansea and Cardiff, and living just over the bridge in Bristol, I was quite keen to, to carry on contributing to, to Wales and its, its kind of tech economy as well. And, and my girlfriend's actually from, she's Welsh as well, she's from Caerphilly, so I think she's quite glad that I've still got some connection to Wales too. And, yeah, yeah I think those were the, a lot of the main things that attracted me to Alacrity over maybe some other incubators.

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And the other thing was that, yeah, it's fifteen-month programme that you are funded for for the whole time as well, so, you, yeah, you get a stipend of £1500 a month, which is, yeah, generally enough to, to cover living expenses. It was probably a little bit easier to live on during COVID, because I wasn't really going anywhere. [laughs] But, yeah.

[28:57]

And did you come across Terry Matthews while you were there?

No, I've, I've yet to meet Terry. We've... So we've received some seed investment from the Wesley Clover group, Terry, Terry Matthews's investment arm. So we've, we've written him a letter to say thank you, and hopefully we'll be, be able to meet him at some point soon. But we work, yeah, we work quite a lot with the, the Wesley

Clover team in Wales, which is, yeah, run by Professor Simon Gibson. So we've, yeah, we've got quite a lot of contact with Simon. And Simon's very involved with the, with the charity itself as well, so teams get a lot of exposure to, to Simon while they're building their products, and get to learn how that kind of stuff works by talking with him. But I think, yeah, the main hub of Wesley Clover is, is kind of in Canada, so we don't get as much exposure to that. That being said, we have met quite a few of the team over there, they run like, regular talks that the Alacrity students are able to attend. So it's kind of nice to be exposed to that ecosystem as well.

[00:30:07]

So then you... So the idea of analysing qualitative data then, that was an idea that you were just randomly assigned, or...?

No. So yeah, we, we were partnered with the, a researcher in Innovate UK, so that was someone who was happy to donate their time to help kind of, aid us in building a project that might help them in their day-to-day tasks. And they were focused on, on researching emerging technologies, so new technologies and kind of, evaluating whether they are going to need investment from, from Innovate UK, in order to kind of get them over some of the initial hurdles of getting out of the universities and into the private sector. And we've been, since we started speaking to them, we got in contact with a number of other teams across Government as well that were kind of emerging technology researchers for a variety of different reasons depending on the department they work in. And, a big challenge that they face is that there's all these teams who are generating lots of really useful insights around the decisions that they're making, but it's quite, it can be quite disparate. So, they've often maybe worked on stuff that might be useful for other teams, but there's not necessarily... I mean they do have groups where they can, you know, meet up and, and discuss, but if you haven't already got a contact, it can be quite difficult to find out what information might be out there from someone else that might be valuable to you. And that sounded like a really interesting challenge to try and help with. It wasn't necessarily the specific challenge that we were given to begin with. We actually had quite a broad brief where we kind of went through their process and tried to analyse its findings, anywhere that we might be able to automate things. But, but that was the area that we were like, we think we could try and build something really interesting

around, around this kind of theme. And we saw it having quite a wide use case outside of Government as well, which was kind of, one of the other, one of the other challenges that we were tasked with. With having a partner from public sector, we still needed it kind of to be viable and not reliant on just Government to buy. So we needed to build something that could be bought within private sector as well. And, yeah, kind of, information silos and knowledge silos is, is quite a kind of prevalent problem in larger organisations that... I mean different organisations have their own different tools and ways that they, they process, but it wasn't something that we saw as being fully solved, or if there were necessarily like, solutions in place that, that were, were doing the best job. And, we kind of felt that we were in a position, and, and the timings of things, and how sort of, machine learning and artificial intelligence is becoming more and more accessible for kind of junior developers like ourselves, was something that we might be able to build something around.

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And, yeah, and so that's, that's what we went with, was, was, yeah, the way that we went about tackling the problem of these knowledge silos was kind of, visualising qualitative data. And so we built a product that essentially, takes in documents of a variety of forms, and can assign them topics that those documents are based on, and it also evaluates a relevancy score for how relevant that topic is. And then from that information, it then builds this visual kind of knowledge map, which is a little bit like a, a mind map but it shows all of the, all of the documents, their connected topics, how those are connected to other topics, and then the users, or people in, in different departments that are also associated with those topics and documents, and kind of enables our users to, to visually navigate the kind of research landscape that they've got, both in their internal company, and then we were working on a number of features to expand that into comparing with external knowledge as well.

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Right. Yes, I mean that is, that's quite a lot ofchutzpa isn't it that you had, quite a lot of belief, self-belief, that that's a pretty fundamental problem, moving, you know, analysing numbers to analysing this, this messy information.

Yes.

So you had lots of confidence to, that's quite a big... That was what you perceived at the beginning, to see the problem that you needed to overcome, was it, these information silos?

Yes. Yeah, it was definitely, it was... So the kind of process we went in establishing what was the best problem to solve. Because there were probably a number of different avenues that we could have taken, and we did have a lot of like, brainstorming time, and doing some rough wireframes of feature designs to solve other kinds of problems as well. But, the more teams we spoke to, that was the common problem that they all had, that they really felt was kind of holding them back, and that was what they spent a lot of their time kind of managing, or that they felt would enhance their work a lot more if they were able to get access to that kind of knowledge.

Mm.

And, yeah, and to be honest, yeah, we weren't that confident to begin with. We, when we first started designing it, we were getting really good feedback on the... So we have a design lead in our team, Katie, who is able to like, whip up a wireframe that looks like a real product very easily, which has been a huge benefit for us. But, yeah, we were getting really good feedback, and people were like, 'Yeah, this looks really valuable, this looks like something that we would use in our day-to-day.' And, yeah, our mentors were like, yeah, very much encouraged us. They were like, 'This is a valuable idea, you should, you should pursue this. And have a go at some of the harder stuff.' They encouraged us, that they, yeah, believed that we could do it. There were definitely a lot of struggles. We did have a bit of a rut for a few months where we were, none of us had ever done any sort of data science or natural language processing, and that was a, that was a big learning curve for a lot of us, and kind of experimenting with the different methodologies, and the different things that we could try to analyse the text that was coming in was a, did take us a little while, and I don't, it's not something that, I don't think we would have been able to pursue without the support of the charity behind us, because it would have been quite a roadblock, that we would have been like, well, this, you know, this isn't going quick enough; how do

we, how do we start making money quick enough while we're working on something as complex as this?

By the charity, do you mean the Foundation, or do you mean...?

Yes.

Yup.

Yup, by the Alacrity Foundation. Yes.

OK.

So... Yeah, so we, we did spend a couple of months, yeah, experimenting with how we could go about solving this, this problem. And, we did eventually, yeah, start getting some, some solutions working, that we were able to, to draw out a topic from a document and, and establish a relevancy score. And once we had crossed that hurdle, I think that, that gave us a lot more steam, that we were like, OK, we, we can actually do this. But I think we were, we were probably on the cusp of pivoting to maybe a different avenue along the way quite a lot. It was a, yeah, it was definitely a, a challenging problem to be trying to solve, and, but we, we thought that we would give it a go.

[00:37:25]

Yeah. No, well I mean, that, that's what it's there for I suppose, to tackle genuine problems. What about your men- So, your mentors, were they the people who had come up with the idea in the first place then, or the, the outline idea, or...?

No, not particularly. Most of the idea generation was done by us as a team. So our mentors are a variety of, they're generally just friendly faces who want to help young tech entrepreneurs, but a lot of the people who we speak to have experience being tech entrepreneurs themselves. So, yeah, Mike Doyle is one of the, used to be Simon's, Simon Gibson's business partner, he offered us a lot of advice on a, on a weekly basis and helped us get over some of the more technical hurdles. Because he

was the kind of technical co-founder of the company that Simon and himself built together. So we had a lot of access to, to Mike, which was really helpful. A man called Mark Adams, who is actually the chairman of our board now, has been kind of guiding us throughout. Mark has a, a long history of cyber security expertise, and has himself built a start-up that was acquired by Lyft I believe, the competitor to Uber over in the States. So Mark's been another key, key mentor. And then, Adrian Jones, who is one of the directors at Alacrity who runs the kind of, the side that deals with the public sector challenges. Adrian's been with us and is also on our board now as well, and Adrian's got a wide network of contacts that he has met throughout his Government career who are able to offer us, both advice on like, how to build a product for Government, and what are some of the unique challenges we might face are in there, but also a lot of friends with a lot of technical expertise who have been able to help us along the way as well. So getting feedback from all those kind of people has been really reassuring, and has helped drive us forward.

[00:39:24]

Yeah. Yeah. So, how, what... So at what point, then... So, Alacrity fund you for eighteen months, did you say?

Fifteen months.

Fifteen months, sorry. And then someone's got to make a decision, are we going to set up a company, how are we going to fund it, you know, and who's going to work for it, and so on. So how does that process happen?

Yeah. So we... Because Alacrity, yeah, has quite close relationship with the Wesley Clover group, there's kind of, it's already set up that you get to pitch to the Wesley Clover group at the end of the programme. So that's what we set about doing about halfway through the programme as we began preparing our business plan, in order to pitch to the investment board. And, yeah, so we went through that process towards, I think we submitted our business plan in around October. We ended up getting our seed funding in January. And we finished the programme in November. And, yeah, so, around December there was kind of a tense waiting period to know whether we were going to, we were going to get funding or not. But, but yeah, luckily we, we did

get approved. And, yeah, so we've now had our seed funding and appointed, well, the, ourselves and the investors who appointed us as the directors, so three of us who are the original founders, we were actually in a team from the beginning of the Alacrity Foundation. I think we were the only team that didn't have any team changes throughout. We did originally have one other person with us, a guy called Joe, who, Joe was in a bit more of a, a unique position to us in the fact that, although he's around the same age, Joe had a child, and, he ended up taking a, I think it was even before he had started at Alacrity Foundation, he already had an offer from KPMG for a graduate accountancy programme, but that had been, they had said that they weren't taking on people due to COVID, so he, he decided to give Alacrity a go. And we're all still really good friends, we still meet up with Joe, like, yeah, he was a big part of the company going forward, and will always be a good friend of ours, and we had like, completely understood why he wanted to pursue kind of more of a stable career choice. Entrepreneurship is definitely not for everyone, there's a lot of risks involved.

Yes.

And, yeah, but the, the other three of us stayed on, and, yeah, we've now just started our, our hiring process to bring some, some more developers into the team so that we can keep, keep growing the product, and get to market a bit more faster.

[00:42:00]

OK. So the three... So, three founders from Alacrity.

Yes.

And that's the executive, that's still the executive team, and the others are all kind of, NEDs or whatever, are they, your mentors and so on?

Yes. Yeah. Yeah, so we, we have, we put together an advisory board that we're still kind of, still kind of formulating; we haven't done our first advisory board meeting. But they'll be kind of there to support us more as founders and, and advise us on, on whatever we need. And then we have the, yeah, the non-executive directors which is

Mark and Adrian, who sit on the board with myself and my co-founder Rachel. So that makes up the board. And then, yeah, Katie is our secretary who's our other founder. But, yeah. And yeah, so my position is, yeah, the Director of Technology, and then, one of my co-founders, Rachel, is the, she's our Director of Operations, but she's essentially our managing director as well. And Katie is our Director of Design and Marketing.

[00:43:09]

OK. So you got your seed funding in January. How much did you get?

250k.

OK. So that's kind of enough to... How far can that take you?

Yeah, so that gives us about, an eighteen-month to two-year runway without making any sales. But, we are looking likely to make our first sales kind of in the, in the middle of this year. And... I mean the aim is that the next stage of funding, obviously, yeah, time will tell what actually happens, but the aim is that if we, if we go for more funding after this, it's going to be to fund growth rather than fund runway. So... Yeah, yeah that gives us the opportunity to, to make kind of, a few hires this year. It's all mainly going to be tech-based I think, because that's the... Both myself and Rachel are developers, we oversee a lot of kind of the business side as well, so that is kind of, I mean the more we become an actual company, the more time that takes up. But, yeah, we want to grow a development team. We're still... I mean we're, most of the candidates we're looking at are kind of at a similar level to us. We're not making any massively experienced hires at the moment. There is scope for us to maybe make one more senior hire who can help guide the team, but, it's kind of one of our values as well, we want to give opportunity to, to graduate developers. I mean we've come out of this scheme that has given us a chance as, as recent graduates, so that's something that we want to continue supporting as well. And, yeah.

[00:44:42]

Yes. And so, what about your own financial stake in it? Do you... Have you sort of, got shares? How does that work?

Yes. Yeah, yeah, all of us founders still have shares. So we've all got, around thirteen per cent each stake in the company. So yeah, we, we all still have shares as, as founders and directors. And the Alacrity Foundation still has a stake as well, so that hopefully one day, as we, hopefully we'll grow and get acquired, and then some of that money can go, go back into the charity and fund a whole new, whole new cohort of budding entrepreneurs.

[00:45:18]

Acquisition is your, would be your preferred route, would it?

Yes. I mean, if it's... I mean I've got lofty, lofty dreams for the company and the product, but, but realistically, yeah, it would be, it would be great to, to build something that's sustainable enough that a large company can, can acquire us and, and make it part of their, their suite of tools. But, I mean, we've had quite a few discussions about our kind of like, values as a company. And I think that, the reason we're all in it is more for the process and, and the opportunity to do this. It was something that we're all passionate about doing, and we want to build a product that is going to provide use to people and make their lives easier day-to-day. And, yeah, there's, there's not many other positions that at our age we would have been able to, to get all this experience. So it's, that's one of the big drivers for us, and yeah, going through all these new processes that we're never had any experience with before has been a really exciting thing to do.

[00:46:19]

Yes. I mean, looking at the Alacrity Foundation website, I mean they, their aspiration is to try to create, you know, a Microsoft, a Google, an Apple. You know, that, that you guys are going to, you know, take the world by storm, and, you know, float on the stock exchange, and, you know, all become, well, become tech billionaires is one aspect of it; but the other aspect of it is to create, you know, a serious big company with, with global reach. Do you think that's sort of unrealistic for most projects that it would be funding?

I think all of the projects have the potential to get there. Especially, yeah, international reach is something that, that we kind of focus on as, as something to aspire to, and that having the, the Wesley Clover network behind us is, is something that gives us a bit of a boost in that area. But... I mean for, for me personally, what would be one of the best outcomes for me is, yeah, that it does well enough that we can get acquired, and then, got some capital to do the whole thing again but with, myself, and, yeah, that would be absolutely fantastic. And, yeah, it's just been a really exciting kind of ecosystem to be part of, and... But some of the, some of the companies, I think the Wesley Clover Canada side of things, and the Alacrity Foundation, so Alacrity is quite international as well, there's, I can't remember how many different countries there are Alacrity Foundation hubs in, but it's all across Europe and, and over in some, there's some in South America, in Canada. And some of those are a little more mature I think, and they've got, they do have some quite large successful companies, but I don't know if they run on the same model of bringing in graduates. And, there are certainly, not every company that's out of it is, is still around, or has done amazingly, but there are some, some really, some companies that are growing very quickly, and do seem to be fulfilling that kind of scope that Alacrity is aiming for. I think, yeah, one of the ones off the top of my head is a company called Talkative, who, I think whenever Simon is giving anecdotes, he's, he's generally talking about Talkative, because they're doing a really good job of things.

And where are they?

They're based in Newport as well. So, yeah, they... I think they came out of Alacrity, two years before me? So... It might be three. But, yeah, they've been, been going a little while. They do... It's kind of like a, a video, instant video conferencing system. Actually I don't know that much about them. But, yeah, their technology is, is doing quite well.

Yes. There's that. So, I mean any, any venture funds or angel investor or whatever would generally speaking only expect to get, you know, one big hit out of every ten I

think. So, sounds like they're, they're scoring above average, if, if only a few of them are going bust quite early.

I think so, yes. [laughs] Yes.

[00:49:28]

Yes. So it sounds like you see your future, then, as far as you can tell at this stage, as more being a serial entrepreneur and, and creating, you're generating enough wealth to go on and do bigger and bolder projects ahead.

Yes, I think that's my, my personal ambition. I think my team mates probably share a similar goal as well, that, this is, yeah, this is our first time doing this, but none of us want it to be our last. And, yeah. I mean it's... Yeah, it's a really exciting thing to be a part of, and I think, there'll be a lot of benefits for, you know, the rest of our, our world if more people were starting their own businesses and, and if we had more smaller independent things popping up rather than just larger corporations all the time. It's a really fun and exciting thing to do. It can be quite stressful, most definitely, yeah, it's not, it's not for everyone, but, but I would recommend it to, to anyone who's got even an inkling of passion for entrepreneurship and who has been looking at maybe one day they want to start their own business.

Because of the things you've already said, or, how would you encapsulate the reason why you would recommend it?

[pause] Yeah, I think, for me it is a mixture of the... It's probably pride-based. Like, when I see the product that we've built, I'm, I'm really proud, I'm like, oh, I've, I've built that, it's real, it's, it's there, and, and see the, the business the same way as the product. It's something that took a lot of work to get to, but it's, it's very, it's there and physical and very real. I think to be honest, that was probably one of the things that drew me into like, design and technology, and, and chasing that feeling of, of building something to put out into the world. But yeah, kind of the, the ownership of something that you've done that's had an impact, is a, a really fulfilling, fulfilling feeling.

Yes. And, so it's not so much a desire to get, you know, rich quickly?

No. I mean, I think that would be a nice side-effect, but, no, the, the process and the, that kind of responsibility, and, and the feeling of success that comes with it when, when things go right, and the, all the learning and growth that you do along the way, I think are the, the main drivers for me.

[00:52:00]

Yes. So... I mean, lots of the questions that we often ask people in these interviews are sort of less applicable to you in a way because they're at the other end of their career, so, you know, lessons they've learnt, you know, mistakes they've made, things they would do differently. You know, in your case, it may be sort of, a bit early to ask you things, I don't know, unless anything springs to your mind.

Yeah, I mean, the biggest thing was just, learning to get over those initial fears of trying something that might be hard, or like, attempting something that I have no clue how to do. [laughs] But, but you know, everybody doesn't know what they're doing to start with, and you've got to start somewhere. And the quicker you begin, the quicker you will feel competent in it going forward. And yeah, you know, going through this process has... I mean, there is still the, the nervousness and the fear of, of doing new things, especially when we're like, well can we build that feature? I don't know how I'm going to do it at all at the moment. But that, the kind of confidence that, that will find a way, is something that's developed quite quickly, that was something that was an initial hurdle to get over. And, and not, not a hurdle that there's anything actually physically in the way of; you've just got to, just try.

[00:53:22]

Yes. And having your mentors and people who, who believed and encouraged you, must have been quite an important factor.

Yes. Yeah, that was very reassuring, and it's something to... You have to learn to realise that they wouldn't still be mentoring you if they didn't believe in you, and they wouldn't be giving you all this praise for no reason. Which, yeah, was, it was another

thing to... When someone is telling you you're doing a good job, take it on board, and, and use it to push yourself further.

[00:53:55]

Yes. And, so, presumably, next time around you might be going to the VC community rather than to, back to Alacrity for the next round of seed funding.

Mm.

Is that, is that right? That will be something different, won't it, having to...

Yes. Yeah, so there's a few different options for us in terms of funding in the future, but it is likely to be more VC-backed. I mean, Wesley Clover could be one of the potential investors in the future, again if it's something that they're, they're passionate about and want to invest in another round, but there's a number of other parties that we're, we're just kind of beginning those relationships with now. But it is something that we're, yeah, aware of and, and starting to nurture, and we'll probably, yeah, know about in the very near future. But, yeah, to begin with we're, we're learning how to manage the seed funding we've got. But, yeah, it is going to be more of a traditional round. Because I think this counts as our pre-seed rather than, I keep referring to it as seed, but I think it is essentially pre-seed.

Right.

And then... Yeah. Although I think, it might depend on what kind of revenue we're bringing in and, and what kind of size company we are. I've got to admit, yeah, the investment side of things was also something that was very new to me, that I have not really had any, any education in before now. My co-founder, Rachel, is a little bit more versed in it. She did a, she did a course at Bristol which was computer science and innovation, where, which was quite a unique course where she got to learn development skills. But on the same side of things, got to learn a lot about start-ups and entrepreneurship alongside it with kind of the aim of going directly into that role afterwards.

But still, talking, pitching and sounding credible to, you know, the money people who have been around for a long time, is, is going to be hard. Presumably it's going to be easier for you now because of this, this background and what you've learnt so far. So it's not so daunting, thinking about approaching venture capital companies.

No. No, not at all. I, yeah, feel a lot more comfortable going and doing it now than we had before. I mean yeah, we've built up quite a solid network of, of other potential people who might be interested in investing already, and, something that Alacrity really give you a lot of practice in as well is pitching. It's a big focus of the course, and you get to pitch to a, a variety of people who have been in positions where they're assessing pitches for investment, or, other people who have done pitches and previously received investment as well. So it's a, it's quite a trial by fire with, with pitching our, completely undeveloped projects to a, to some of the, some really, what's the word I'm looking for? Well so, some experts in their field who, who give us, like, sometimes quite harsh feedback, though it's always, always in the manner of [inaud].

Yes.

And yeah.

[00:56:54]

Like Dragons' Den, better, worse?

It's kind of like *Dragons' Den*, yeah, it's similar styles of questions. It was a bit strange doing it through COVID, because, I think normally they like us to do it in person. There are definitely some benefits to being able to pitch over Zoom, because like, you can have your notes up on the side screen and no one can tell. Whereas if you're wandering around with bits of paper in your hand, it's a bit more obvious. And, yeah, no one can see your hand shaking under the desk, if you're in front of a computer screen. But, yeah, I mean we've still got opportunities to pitch to, as restrictions eased, we did, we did get back into the, the physical world and, and do some pitches in person as well. And, yeah, that was a really valuable experience. Because I mean you can pitch to friends and family as much as you want, but you're

not going to get the same feedback. And yeah, being able to pitch to people who had been there and done it was, was a really great experience.

[00:57:50]

Yes. So, what... Can you perhaps talk a little bit about potentially how the world might change as a result of the technology that you are developing, what might be different in life for your, for your clients in future?

Sure. Yeah. I mean, the biggest thing is being able to share knowledge in an easy and accessible way that, that anyone can understand. It's a, it's a visual format, and it enables people to search for, for documents that might be useful to them across their organisation, and, without necessarily knowing that those documents exist in the first place. So, yeah, users will be able to search by the topic they're interested in. No longer will you be trying to trawl through various folders and files and SharePoint and not getting anywhere. And instead you'll just be able to type in the topic you're interested in, find the related articles and documents that have been produced by your co-workers and peers, and get in contact with the experts in their field who are already in your organisation, and get their feedback and advice a lot more easily than you currently can.

I mean, a bit like using Google; a lot of people might think, that's what they can do with Google already perhaps.

Yeah. There are, I mean there are [inaud] for every product. Google BigQuery is something that large organisations have in place in some, some aspects. But being able to visually see the information and the, the quantity of information that's out there, and how it's related to topics that you might not have realised were connected in the first place, is something that we find provides a really valuable insight.

[59:30]

Yes. OK. And, then, perhaps you could look into your crystal ball and make a few forecasts as to how you think your part of the, of the world might change in the next, in the next decade or so.

What, in terms of like, the, the sector that we're working in, or the...?

Yeah. Yeah, as far as you feel able to... Yes, I mean you're, obviously this is all sort of, at the beginning for you, but, and making predictions, and, you know, being visionary. I mean, you know, even Bill Gates, you know, originally thought the Internet would be nothing. [SC laughs] I mean obviously, the whole thing is fraught with hazard. But, if you are, were to try and look at the kind of world we might be living in, in so far as it relates to what you do, in ten years' time, do you have any ideas, thoughts, forecasts that we might share?

Yeah. Yeah, definitely. I mean I think a big thing that's been a driver for us that I think we'll start seeing a lot more of as well is smaller products that are making use of some, some sort of artificial intelligence or machine learning in a small capacity, to automate more decision-making processes. I mean that's kind of fraught with some issues around, you know, ethical, ethical decisions and biases being introduced. But where there are kind of, small mundane tasks that don't necessarily always need a human input, I think we're going to see a rise in smaller products that are making use of, of a computer's power to, to make decisions on, on small scale in products that we use in our day-to-day lives. I mean, yeah, there's tons of products that are probably already doing it in the background that we don't even realise anyway.

Any examples of that, for example?

[pause] I mean, well, one example I think is, is happening right now. I mean machine vision] is, is what's blurring the background behind me in Zoom. In terms of other examples. I can't... Yeah, I can't think of any off the top of my head right now. I mean we know that algorithms are running our lives in terms of social media and everything we do anyway, but...

[01:01:42]

I know. Yeah. No, you're right, you're right. Well, OK. Is there anything else, given that the, the idea of this, of this video and of the Archives of IT is to sort of inform and educate, you know, people who are even younger than you perhaps, as to, you know,

what the opportunities might be, and, and things that they might, they might look at, what sort of advice might you give, or, do you have anything to suggest there?

Yeah. So on a couple of points. I think, if anyone is interested in coding, there is a wealth of information that you can self-teach yourself a lot of what you need to go into like, web development and building actual products. Kind of, a misconception that I had when I was going into my degree was that, I really, I definitely didn't want to be a web developer, I wanted to build software, but actually, almost all software that we use is on the Web now, so, that is a software engineer. So, yeah, get learning in web development, start building stuff that people can use. There's loads of free resources out there that you can find with CUIC Google. And, if you have, yeah, any spark of entrepreneurship, have a look at programmes like the Alacrity Foundation. They are out there, they're not necessarily always that easy to find, but there a number of kind of, incubators and schemes that are looking to help people get, get their first steps into entrepreneurship. So, if it is something that you are interested in, it's definitely well worth pursuing. And there are steps, there are people and places that you can go to for, for help with that, to make sure that it's something that you can, that you can achieve from, from any background, such as the Alacrity Foundation, and it is really, really worthwhile.

OK, well thank you very much, that was absolutely fascinating, and, all I can say is, we, we look forward to watching your, your progress no doubt onwards and upwards.

Yes. Thank you. Yeah, no, it's been really enjoyable.

OK. Well thank you very much Sean.

[End of Interview]