



# Richard Little

Interviewed by

**Tom Abram**

6<sup>th</sup> May 2021

Via Zoom

Copyright

**Archives of IT**

(Registered Charity 1164198)

*Welcome to the Archives of Information Technology where we capture the past and inspire the future. It's 6<sup>th</sup> May 2021 and we're on Zoom, as is customary these days post-Covid. I'm Tom Abram, I'm Director of the Archives of IT, and my own background is in technology research and business consulting for 40 years or so. And today I'm talking to Richard Little. Welcome Richard. Richard is, I think, best described as a serial entrepreneur and angel investor in software and services companies, currently involved in more than 30 companies and having celebrated some great exits. In his early career he started up his own company and grew that successfully to exit, around the year 2000, since which time he's been involved in many companies as an angel investor and director. So, could I pick up on that first, Richard. What is an angel investor and is it a new idea?*

I don't really know its official history. It was certainly a term of art I would not have willingly adopted when, frankly, I started doing it. So in, at the end of the last century an angel investor brought to mind the picture of a retired dentist putting ten grand into his daughter-in-law's florist shop, it was a hobby, if anything. And it must have been roundabout the turn of the century that the business expansion scheme turned into the EIS scheme and with a lot of tax breaks and sort of support generally from government, I would have said it's become now, you know, a thing. But it certainly wasn't when I started it. I regarded myself as a poacher turned gamekeeper, an entrepreneur turned investor.

*Right.*

And when I kicked off, I mean I started my own company as a typical entrepreneur back in '82, and I say typical entrepreneur, I wasn't very employable. I'd worked in a salesroom, I'd not had much respect for my employers and I felt I could do better, frankly. So I was an arrogant little so-and-so, I suppose. And I blame that really on my father who'd also set up his own business and I have observed a strong correlation between being an entrepreneur, or trying to be an entrepreneur, wanting to be an entrepreneur and having a parental example that's pretty similar. So I definitely was following in my father's footsteps not to become a professional civil engineer, indeed, he counselled me against joining the professions. He said they acted in restraint of trade and that I'd have more fun doing trade. So that led me just to...

[0:03:42]

*Can we go back to your origins and your family then, since you've mentioned your father? When and where were you born?*

Oh, I'm a, well, I thought myself a proper Englishman. I knew my father's relations had come in from Ireland, I didn't realise that my grandmother was also Irish until her funeral, because she was born in Spain and she spoke Spanish and her name was Isabella. But her maiden name, I learnt at her funeral, was Murphy. [dog barking] Excuse the dog. So, yeah, three-quarters Irish, Ealing, you know, London Catholic. Went to a monastery school, day school in Ealing but run by monks from Downside, and so yeah, very standard London day school upbringing. Ended up going up to Cambridge, because I swotted a lot at school. Didn't do that after I left, swanned around at university, got a gentleman's degree, and then went out to the Middle East. Sorry, my degree was in Arabic, I should mention, which was a mistake. I liked doing languages, I'd done Russian at school, I enjoyed the struggle really of learning a language and thought Arabic would be a test, and it was a test, a considerable test. I did Arabic and Persian. Went out to Iran and liked it, but they changed the management there and threw me out, and then went over to the Arab countries, hated it, hated it. Came back, almost respected my Catholic roots because I had a pretty dim view of Islam after the revolution in Iran and trying to live in the Gulf States and Saudi. And frankly, I've never considered Arabic since. I came back, joined the computer industry. I came back at a time, late seventies, when the British ran it. Companies like Compaq in America and Sinclair and, you know, all of these really early doors for the British microcomputer. I worked for a British microcomputer manufacturer. Well, I started at Burroughs. Sorry, I've missed out the key part. I chose a job at Burroughs over a job at IBM because the commute was a lot easier. So I did two interviews, one at Burroughs, one at IBM, chose Burroughs. It was, in the famous words of some American at the time, it was a cowboy outfit compared to IBM. I like to think if I'd joined IBM then I might still be there, because it's a pretty good company. Nobody I think would ever have said that of Burroughs Machines Limited, it was a follower, it was a, it was big in banking but didn't have much to recommend it culturally and its technology was okay, but not really market leader. But from there I lucked into a British microcomputer manufacturer when that was not

a ridiculous [dog barking] oxymoron. Made CP/M microcomputers in Camden Town, a little workshop. And I was a salesman for them, and loved it. And then went from being a commissioned salesman to being a – what do you call it – a margined agent, and kept many of my customers. So I got a free ride, really, into a start-up business in 1982 with an agency for a successful microcomputer product that became the ICL PC, and ICL was then, as I think you'll remember, a very big British supplier. So I got a soft way into exactly the right time to enter the computer industry in the UK. It was booming.

[0:07:33]

*So you're racing ahead there. Can I just take you back to those earlier days, because I think, looking at your family details, it's easy to make assumptions about how you ended up doing what you were doing, with a grandfather who was clearly a business person in the oil industry, a father who was a civil engineer who founded and took his own company public. I mean what, is it a very business-oriented family, did it feel like that when you were small? You know, what was it like in that household?*

Yeah, my father worked like a demon. Weekends he would be writing reports, he went to work before we got up in the morning, we'd just smell the cigarettes in the toilet downstairs, and he would come back at bedtime at best, often after we'd gone to bed. He worked really hard, set up his own practice. And it was the first professional practice in the world, both to incorporate – because that was unusual, they were nearly all partnerships – and then to go public. And it had his name on the heading, you know, it was Kenchington, Little and Partners. But it went public as Associated British Consultants and it's now part of WSP, which is a big engineering practice from America. But it was the first in the world, a company that had started as a partnership, as a professional practice and had gone all the way to being public. Now, my father was a non-executive when it went in its flotation and he went on to really become an expert witness in court cases and then to become the Chief Engineer for the Channel Tunnel. But not Chief Engineer building the Channel Tunnel, Chief Engineer in the five-man arbitration panel that actually had all the authority between the different contractors and designers on each side. So he had a fabulous end of career on the Channel Tunnel project. But yeah, he was definitely the role model that I had to match, and so setting up my own company, well, firstly going into the

computer industry, which he described as engineering without codes of practice. So my father had pioneered, as a building engineer, he was a civil engineer, I mean he did things like Channel Tunnel and big distribution centres for Sainsbury's and that sort of stuff. So proper hardcore civil engineer who led something called the... what was it? The Campaign for Professional Codes of Practice, because he abhorred things you'll probably understand better than I do, limit state theory and these kind of computer based codes that ignored all of the sort of engineering arcana built up as a trade over centuries. And he didn't much like the way in which computers had taken over his industry, but you know, nonetheless did a lot with them, he came to understand them. Then when I got into the computer industry and he saw that you could build stuff without the kind of constraints that were naturally in arenas of engineering that, you know, involved life, you know, I was always building banking software. It didn't matter if it fell over, the worst that could happen is the client would sue you. It didn't mean your bridge fell down or your plane fell out of the sky. So yeah, he was an engineer and so I was brought up in a family household that respected engineering principles. One of his jokes was, I was 16 before I realised that 'bloody architect' was two words. Because, you know, it was always engineers versus architects. And now in my current world I would say it's engineers versus consultants. It's, they're different mindsets and I was not an... [sound drops out] company. Those are all pure engineering productions. But, those softer skills of selling, the skills of making things happen, that's always been my background. So when I went to Burroughs they trained me as a salesman and I went on sales training courses as well as COBOL courses. And I actually remembered and sort of digested the principles of selling and I never learnt to code in COBOL effectively, nor any language since.

[0:12:42]

*So you're the eldest of five children, I think, if I count correctly, from your details. Did everybody else end up following similar careers as a result of your father as a role model?*

Erm, no. Not, well yes, yes, yes and no. My sister followed my mother's role model, so she became a teacher and foster parent and adopted lots of children and just really took parenting really seriously. So my sister was the counterweight. My brothers

followed me, who was following my father, I would have said. They've all, my next brother down became an engineer. So he studied engineering, had a career in seismic engineering, and then became a software engineer. My other two brothers followed me more closely, they did not become engineers, they studied languages. By then the school had changed over to Spanish rather than Russian, which was rather more useful. One then married a Spaniard, one then married a French girl, and they, all three brothers have worked with me in the first company that I set up.

*Yeah. And I've met Peter of course. I've met Peter a couple of times.*

You've met Peter a few times, yes. And indeed, well David did a lot of engineering with us in the company and my brother Philip set up Braid in Spain. And indeed, the interesting thing is, Philip set up Braid European sales operation, he moved to Barcelona where he's lived for, must be 30 years now, and he set up Braid and then we sold Braid in 1999 and then it got bought by IBM, and he stayed on all the way through it, and he retired from IBM last year.

*Wow.*

So he carried on at IBM, still employed on the terms that he'd negotiated with his elder brother, which were quite favourable, which is how he managed to survive, he reckons, all of IBM's regular downsizings. [laughs]

*I must just ask you one other thing about your family. Your mother's occupation as secretary at a film studio sounds very glamorous, did she meet lots of people?*

I think she must have done, it was Ealing Film Studios in its heyday.

*Yes, Ealing. Yes.*

So I think she must have done, but she died very young really, she died younger than I am now, so 25 years ago. And we never really got round to quiz her about the detail of her time there. I suspect she didn't do it very long, she had five children in a hurry,

so she must have given up work before we all came along. I don't ever remember her working or anything like that, so I can't tell you much about that aspect.

[0:15:32]

*Oh, that's fascinating. I missed the Ealing connection. It's obvious. Anyway, so you went to St Benedict's School in 1960 and there seems to have been some mix-up about your age or something, or some...*

No, no, it wasn't that, no, no. It was fashionable, in those days – it's so different than today – in those days everybody got a grant to go to university, they didn't have to pay for it, and local authorities also gave grants to students to go to the private schools in their area. Ealing Council had a free place programme and, you know, me and my four siblings were all at private schools; my brothers at St Benedict's, my sister at St Augustine's, the convent round the corner, because they were all single gender in those days. And I was encouraged, because I was the, what was it, I was the youngest in my year and a good solid middle streamer with a very active social life. Classes were all streamed in those days. And I was encouraged to stay behind a year in the junior school in order to apply for a free place, or do the exam for a free place. Or maybe it was the eleven-plus, I don't know what it was, but I think it was a special exam you had to do or something. Anyway, I won a free place at the age of 11, which must have made a difference to the family. I mean it was never talked about. The really funny thing about it was, I don't think any of my, anybody at school was aware of it, I'm not even sure my brothers and sisters were aware of it. But for me it was quite traumatic, because all of my friends were now, you know, spent a year in the school above me, because there was a junior school, a middle school, a senior school, two years later they moved to the senior school and again, they weren't even in the same buildings I was in. So I got pretty profoundly de-socialised, I would say, at the age of 11. I moved from the B stream to the A stream. Well, you would if you'd spent two years doing the same course, and I stayed in the A stream and I became the difficult character I've always been, I think, at that point. My friends would disown me in the playground, because they were in the year above and it mattered what year you were in at that age in those times. And I became very disobedient, I would have said. I was in a lot of disciplinary trouble all the way through school and it was, you know, there was a lot of beatings and canings in those days, which of course I will say

did me no harm, but I didn't enjoy them at the time. And I refused to join the CCF later on, I never made prefect in any of the schools after 11. I didn't even make head boy in the junior school, thinking about it, when I was doing my retake year, so I must have been a bit difficult to deal with disciplinary-wise. I was the only Oxbridge student ever to leave the school, I think even since, without winning what they call the Priorian Medal. I was just a difficult bugger at school and I used to goof off and things like that. But vainly, I would work ridiculous hours, I mean I would even not let my parents know how hard I was working. I was determined to excel without being seen to try, and that I would have said was a characteristic of mine. Less so now, now I don't work so hard at all, I've learnt to be smarter rather than harder. But in those days I grafted and I got excellent A levels, best you could get. Having, oh, and I did a fourth year Oxbridge entrance, for those that care about those things, and they gave me a conditional place, because obviously I had the rest of my school to finish off. Conditional upon two Es. Well, I'd already got an A star, because I did a third term A level in English, so I'd got one A star. They said they wanted, the total was two Es, so I kind of felt obliged to get two more A stars because, because the bar had been set so low. And I was, again, I look back, the UCCA form then, as it was called, UCAS now, the UCCA form then, you filled in five universities that you were prepared to enter. I put the college at Cambridge that my father had gone to – that's another story, it's not particularly relevant – I put my father's college in Cambridge, I'd also decided I'd like to go back, I'd like to follow up the French a bit and I heard there was a good degree in philosophy at Lausanne. So I put that on the UCCA form, which was completely out of order, and I left the other three places empty. [laughs]

*Bit of a rebel then?*

I look back on it and yeah, I must have been a difficult kid to live with. Especially since I was expected to lead my siblings by example. You know, my parents were busy and I remember hating that, the assumed responsibility I had to take for my children... for my brothers and sisters, not my children. That was much easier later.

[0:20:54]

*So it's interesting that you seem to have this fascination with languages.*



I found them easy. I found them easy. I like codes, I do crosswords, I do sudokus, I like codes and patterns. I like reading books. So no, that hasn't changed actually, and it wasn't, it was a facility with language, it wasn't really a deep competence, I'm not an academic, I'm a lightweight, really. But, and my academic qualifications flatter me enormously.

*[laughs] I'm sure you're being modest, but I mean there is this debate, isn't there, about STEM subjects and people getting into IT and is STEM the right training for that or is...*

It's not the only training. No, no, STEM, I wouldn't, I'm incompetent as a coder, I don't have the structured mindset that you want for engineering. But engineering is not the only discipline required to build great products. So no, I see myself as a support act to engineers, I'm in an engineering industry. I respect all the values of an engineer, but I also see them in a context that many engineers don't seem to understand.

*Yeah. It's an interesting perspective. So, you went to Cambridge and I think you said you didn't work so hard there, but you still seemed to do alright.*

Well, I didn't really. I didn't work very hard. Because I was a fourth term entrance and I didn't do what's now called a gap year – I don't think I'd heard the term until I went up to Cambridge and discovered everybody else had had a year's holiday – I don't think it was called a gap year in the 1970s and I certainly did not consider taking a year off after school, didn't cross my mind. And I went up there and I kind of discovered rowing, I discovered acting, I discovered girls, all sorts... and I made friends, which I hadn't done at school. I made very close friends, in different disciplines, that was a good thing about the college system at Cambridge. So my friends were mathematicians and doctors and, you know, they were all from different sort of mindsets. And many of them from boarding schools, you know, that was a new world to me, these exotic characters. There were quite a lot of Etonians in my college and, you know, they had a kind of camaraderie and an outlook on life that was, you know, it was like being in a foreign country. It was quite fun.

*Right.*

I thoroughly enjoyed it, I love being in foreign countries. I mean I'm quite comfortable being in a minority. I've never really, I always regarded myself when I... yeah, I'm very happy living abroad, I don't conform very easily to, and I'm not very happy being in a crowd. So I guess I see myself, you know, as an Irishman living in London, you know, or as an Englishman or British when I'm abroad. I'm very happy to be in a minority.

[0:24:09]

*So from those years, you know, school and university, are there people that you look back on as having had a big influence?*

Oh totally, totally. I mean, there's a guy, Geoff Chapman who did maths under Stephen Hawking while I was doing, while I was goofing around, he went on to start a PhD in Hawking's group doing black hole theory, you know, while I was trying to get into Footlights and failing. And Geoff was still doing PhD when I left and started my own company and I persuaded him to give up a year before getting his PhD and to come down and work for Logica, and nine months later he was working with me when I set up my business. So he must have come down while I was at Burroughs. Oh, while I was at Rare probably. No, while I was at the micro-manufacturer, just in the year before I set up my own business, he came down to London, working for Logica, and I persuaded him to leave Logica and start the business with me. Because I knew I wanted to develop code, I couldn't do it myself, I knew he could do it in his sleep. And our first trick – again, you'll remember this, not all listeners will (if anyone listens) – but was to put telex on to a PC. So the PC was becoming an office tool and you could buy a PC for – I can't remember - £2,000, and it cost £2,500 to buy a telex machine. So we decided you could take a modem, you could stick it on to a telex - they weren't even modems in those days, they were, it was a slightly different switching system – but you could take a little device, stick it onto a PC, run a background task on a single-threaded operating system. So we cheated DOS and CP/M and all these operating systems, we cheated them so they would run multiple tasks and in the background you could run a printer, which was the obvious thing to do, and others had, lots of people produced printer drivers that would run in the

background, we produced a modem driver, which was a two-way communication obviously, and that was all Geoff's invention. So I was able to get an engineer, give him a challenge, a business challenge that I'd kind of seen and understood, and he went off and found the ways to, you know, address the challenge, innovate.

*So that was a Braid unique, was it? That was...*

We were certainly the first. I mean we weren't the first – God, it's all coming flooding back, I haven't had this conversation for decades – it was Interrupt, Interrupt 16 or something, I think it was called, which you could mess with. So yeah, I think, we were certainly the first to produce a telex system on both the ICL PC, which ran CP/M, then MPM, moved to MPM, and the first to launch a telex system on the IBM PC. But it was a technology that by then, you know, this is before the internet, but people learnt, there was a, you know, there was a circulation of information about how you cracked the operating systems from wherever they came from, Digital Research and from IBM and Microsoft. And so we were hackers, I suppose you'd call them nowadays, we would hack an operating system to make it do things that weren't supported and then you would have to support them as you put them out into the field.

*So was there something about the market or, you know, the world at the time that made all this appropriate? I mean early nineties, communications and computing sort of converging, it was those days of dial-up modems and working over telephone lines and things. I mean was this something that was just coming in then that offered you an opportunity?*

Well, our first idea was to build a terminal emulator for the CO3 terminal on ICL. So ICL had mainframes with terminals that cost more than PCs, so we decided to build a terminal emulator. That was my first business lesson, because so too did 250 people working for ICL. And so we produced a product that was undifferentiated from six other products launched at the same time and we ditched it. We just realised we'd made a mistake. And we then chose telex as an equally expensive dedicated device that we could replace with software. And telex wasn't, you know, confined to a market like the ICL mainframe market, telex was a global market, and we thought

they're as good as anyone else, but no one's going to have an inside track on telex. So we chose telex having failed with our first idea, and in fact, this conversation is reminding me of a lecture I gave just after I sold Braid when someone asked me to explain, you know, my route to success, and it was having got everything wrong first time and how my philosophy was to get it right second time. Not even worry about getting it right first time. So I joined Burroughs and if I'd stayed as a salary man I would have moved to IBM later. I chose the wrong company when I was given IBM or Burroughs to choose between. We launched Braid with the wrong product but we got it right when we discovered what was wrong with it. And that's become, you know, almost the background to agile programming, you iterate [dog barking]. Nowadays, you know, it's become much more systematised, but in those days it seemed like I was inventing this. Don't over-research things, get out, do it, get it wrong, correct it. And nowadays I've got all sorts of nostrum, now I'm a non-executive director and I come up with platitudes for every occasion. There's lots that I'll use in that line – excuse the dog. Yeah, but getting it right second time was one that resonated in the beginning of this century after I'd sold Braid.

[0:30:33]

*So, sorry, you might have said earlier when you talked about going to Burroughs, but was what it that took you from a languages degree at Cambridge to working for a computer company?*

Oh, three years of failure in the Middle East. I went out, I finished with Arabic and Persian. Iran was closed, Arabia I hated, I just decided I don't like this. And I came back, tail between my legs, three years after Cambridge. Other people had finished their, you know, apprentice... what do they call it? They don't call it apprenticeship. Their pupillage in the professions and all this sort of stuff, and I came back, tail between my legs, applied for jobs, got offered. I mean my story when I went to interviews at IBM and Burroughs was quite a good one. You know, I'd got a Cambridge degree and I'd lived around teaching English, working on building sites for three years on my own initiative in the Middle East.

*Right.*

And I'd spun a good yarn. So I started as a salesman which was not a very – and probably still isn't – it wasn't a very high status role, but I loved it, I loved sales.

*The period in the Middle East, that was after you'd graduated?*

Well, it was during and after. I spent my summer vacations there in my last two years at college and then I went out there for three years. Well, three years, I went out there for what would have been about ninety-day visas. That was all you ever got, so I went out there for three-month periods.

*So you were kind of out there to exercise your oriental languages and...*

It meant I could order beer. I mean I was teaching English or I was working on building sites. And I don't mean, you know, managing fancy building sites, I was carrying hods and able to shout at the local staff in Arabic a little bit. So it wasn't, I was grafting, I was just getting by.

*So this was a kind of, almost like a travelling phase or something?*

It was my gap year. I mean by then I'd realised, I felt I was owed a bit of time off, I loved being able to keep myself. I've watched my daughter doing it now, she's off in Berlin at the moment. Just wants to keep herself, she wants to be independent of the parents, she wants to show she can, she's made it, she's grown up. And I had that strongly.

*So you came back and computers was an opportunity.*

Exactly. No, computers was perfect for me. I think I only did four interviews. Two of them were with computer companies and the other two I didn't get job offers. I went to Guinness at Park Royal because that was the big employer for Ealing Catholics, and they didn't offer me a job, and I applied for something in the Sunday papers, to be a sales director for Deb Chemical Proprietaries, selling Swarfega around the world. And I went through the whole interview process but they didn't offer me the job either, so I started as a trainee salesman instead.

*So this was 1979 and...*

Yeah.

*What did people know about computers in 1979? I'm just thinking back. I suppose...*

Well it was, I can tell you exactly when it was because the first, they were COBOL computers, the small computers, the office computers when I started at Burroughs were magnetic card... sorry. Yeah, they had basically, there were lots of mag stripes on things. You had, not the old punch cards, but they were magnetic card devices and there were the big reel-to-reel things that you see every now and then on, you know the big... I never sold the big stuff, I was in the general accounts force selling business machines. So the great thing that I got from them wasn't learning COBOL, but I learnt accounts payable, accounts receivable, because they used the American terminology and we had to translate it into debtors and creditors, but I learnt from a very competent training organisation, Burroughs, I learnt how small companies account for themselves and I drove around the trading estates around Heathrow Airport selling to entrepreneurs in all sorts of lines of business. I mean I couldn't have had a better business training than that. And I loved the accounting, I loved these little companies I was selling to. What problems was I solving for them, how much money were they making out of it, how could I help them. And in those days, I'm ashamed to say, I was ripping software off, selling it for cash. I mean it was such an undisciplined company and I was, you know, not a very disciplined guy, I really learnt the contempt with which an employer could be held by his staff. And I watched the company I was selling to and saw how they kept their eye on the numbers. You know, I'd be talking to the business owners about their worries about whether their staff were ripping them off, and these basics of business that I suppose you learn at business school, but I learnt them first-hand and it was a really good training to become an entrepreneur and it's been pretty good for me as an investor since. You know, you've got to put, you've got to monitor, you've got to have systems that monitor, you don't want to be seen to be doing it yourself, but you want systems that monitor and then you can just spend your whole time making sure you've got a culture that shows trust and engagement and stops people ripping you off. And that's

why I never want to run a restaurant or a pub or, you know, that's why the tech industry and why engineers are so good to work for. We are actually a very honest group of people and that's why when, you know, something like Volkswagen's Dieselgate incidents come along, it is such a shock to the system, because I would not have expected that of an engineering business.

[0:36:22]

*So when you started Braid, how much capital did you have?*

Well, I had none. I had an agency agreement with my previous employer and he'd been giving me 2% commission and I now had 30% margin and a few customers who were buying at full price. So frankly, my previous employer, knowingly, I mean I never negotiated with him but he could see me doing it and didn't stamp it out, saw some of his very high margin clients become lower margin clients because they were buying through me. But we were good friends, we stayed friends for a long time. So I had some business to get started with, I had the promise of a 50 grand investment from my father-in-law. And with that, with the promise of that investment, I was able to go and hire three people to come and work for me, including Geoff Chapman, my friend from Cambridge. And he became my partner, I mean he took 40% of the business to come and work with me. And I started on 1<sup>st</sup> April, on 1<sup>st</sup> August we started for VAT and we started our business properly, on 1<sup>st</sup> August. On 7<sup>th</sup> August my father-in-law died in his sleep. And that was obviously a complete shock to us, and I was working out of his factory, he had a manufacturing jewellers in Clerkenwell, and so that was absolute trauma, at the end of which I did not have a 50 grand investment from my mother-in-law, she decided that's not what she wanted to do. I got a phone call out of the blue from a guy who introduced himself as my father-in-law's banker, said he'd met me at the funeral, but I didn't remember him. Invited me to meet him at Midland Bank, Hatton Garden, and he told me that he'd seen my business plan, he'd encouraged my father to invest 50 grand in me, he'd heard from my mother-in-law that that wasn't going to happen, and he'd like to give me 75 grand under the small firms loan guarantee scheme. It had just been launched and I'd never heard of. And he didn't want any shares for it, my father-in-law was going to get 25% of the company for 50 grand, and the government gave me 75 grand for a 2% interest premium, you know, it's 2% you paid for the guarantee. And I

ended up borrowing 250 grand, that scheme grew over the years, paid it all back in full, which apparently most companies didn't end up doing, so it was a very risky venture. And my mother-in-law missed out on what would have been a substantial return from the investment had she chosen to make it. But now, it all ended happily. I, you know, the business went pretty well in the early years. We struggled, we struggled later because telex died out, fax was really difficult to do on a computer, and then we didn't, it wasn't a glorious finale, we survived, we did well and an American company came along and did what we were doing, but gave it a fancy name. What we were doing by the time we got to the finish was we weren't just doing telex, we were doing all sorts of structured messaging between different applications, and these Americans came along and called it messaging middleware. We'd never... you know, nonsense words, but it was words that meant venture capital poured into this business. Braid ran for 17 years, sold it for 250 million or something, never took a penny of venture capital. Signed two deals with venture capitalists, but neither of them completed, and not by my fault, so I ended up thinking we were very lucky there, somebody else gave us a good way out. It showed me first of all that, you know, we were selling products to banks for 200 grand and they were buying the same functionality with Gartner recommendations behind it and buzzwords, they were buying the same functionality for a million pounds and leaving our system in place, just using the generic product all around us. So we ended up selling the company to one of those messaging middleware players, who also did healthcare, we became the financial division for a company that was doing messaging middleware, financial middleware in the healthcare industry. So we did have a glorious exit, but it was more by luck than judgement and it was other people's genius, if you like, other people's business genius that saw the much wider application and managed to attract capital into what was otherwise a sleepy backwater. We were tail-end Charlies, you know, dominating if you like, the tail-end of a dying industry. And that's a good way to make a living, it's not a great way to make a fortune.

[0:41:25]

*So it looks from your resumé like there was quite an exciting time after the first ten years of Braid, you kind of embarked on a lot of international expansion: New York, Hong Kong, Bermuda.*



Yes. Well by then Braid in London had got 100 people in it. My brother was sales director. He and I are so similar in our outlook and style that actually we didn't get on terribly well together in a room. [laughs] Well, our differences irritated us and nobody else noticed them, as differences, they just saw us getting irritated with each other. So I left. I left him in charge of the company. With the terminology changes of the time we were both able to save face. He took over my role as managing director of Braid, I went over to the States, set up Braid Inc and called myself chief executive. So we both kept all the bragging rights. He had all the responsibility for running the engineering capability and the main sales office. I started the set-up in the States, found someone to run the US office, went out to Asia, set up in Asia, went back to the States in time to sell the company. And basically Peter ran it, I would have to say, Peter ran it from then on with my interference. I was both expanding the business overseas and it was a good methodology, you couldn't run a global operation, even an international operation like today. You know, there was no internet, there were no communications. The time zone was really debilitating. Even telephony was expensive. So, you know, you had to have authority delegated to your start-up companies abroad, and I love start-ups, I was good at the early stage. So we were pretty successful in America, we were very successful in Asia. I structured it in a way that was fashionable at the time and you'd blush to do today, with a trust in Bermuda and all sorts of tax avoidance which was, frankly, respectable in the last century, at least in Britain. It was never respectable in America. So we had complicated structures, which meant that when we sold the company, a lot of tax was saved by a lot of people. People received distributions from the trusts that owned it offshore, tax-free, not just me. But I became effectively a tax exile for ten years and I'll never do that again. I mean, you know, times have changed. Now I'm a willing taxpayer, I don't, you know, we did it, we wouldn't do it again. So I think that times have changed for the better in that regard, at least for small companies. I still think large companies avoid tax shamelessly, but small companies, it's not worth the effort any more to set up fancy structures. So I learnt all about them, I executed more than my fair share of them, won't be doing that again. But yeah, I went abroad, I like the start-up stage. And I've stayed like that since. So when we sold Braid, I was the first – Peter's done it since – but I was the first to find companies that looked a lot like Braid, British tech tried to get themselves established in New York and around the world. And I went along to people who looked a bit like I thought I must have looked

ten years earlier. These were entrepreneurs who'd got customers, who'd got a business, usually in banking or in comms, and I would introduce myself to them. I'd research them a little, again, there was no Google to ask, I went to trade shows, I found little companies, I introduced myself to the boss and if we got on, I'd say to him, look, you know, you ought to be lining yourself up for venture capital, you ought to have a board of directors, you ought to have minuted board meetings, you know, you ought to have options schemes. All the things I'd done that very often they hadn't done, because for different reasons. So my first ten years as an angel investor, I saw myself as a coach or a mentor you might call it today, to chief execs. And my spiel was one you wouldn't get away with today, companies, start-ups are so much more valuable. But my spiel was, look, I think I can improve your capital outcome by at least 10%. So give me 10% of your capital outcome, you know, I'll buy 10% of your company, and I'll give it you back for whatever I paid any time in the first four years, okay, but let me have 10% now and I'll walk away any time in the next four years if you come to doubt that I'm going to add 10% of the value. And nobody ever walked away.

[0:46:22]

*So this comes back to my first time question about, you know, what's an angel investor?*

Well, that's how I started. I saw myself able to give the advice, I got a little bit from someone we know very well, Roger Graham I brought in as, as the outside director and chairman of Braid, and he'd spent a lot of time with my brother, Peter and Peter had learnt a vast amount from Roger, who'd run big companies, bought them, sold them, all in our sector, about how to present yourself to investors. And I'd observed this. And I was an audience for this, I wasn't the author of the company reports each month, I was the consumer of them. But I'd come to appreciate them, I'd come to understand it, and I hadn't worked it out from first principles and in the companies I went to, their chief execs hadn't worked it out from first principles. It's all online now, you know, how to write a business plan, how to do your accounts, what matters, what are the KPIs, as we call them now. That was not an established science in the first decade of this century and I was going to start-ups who'd got, you know, one to five million in revenues was what I used to talk about, and I'd get you from five to 50.

And in a way that's still my sweet spot, I think. At that stage it's less than 100 staff, it's, your first customers are very important but they will also lead you astray. You know, you've got to keep control of your destiny through that stage when lots of people have the whip hand over you.

*But you achieved this with, by the sound of it, quite a personal input to the companies that you invest in, quite interactive which, you know, is, I don't know, is that different from venture capitalists or private equity companies or, you know. I mean is this, the angel bit really...*

It's not strictly angel. No, you're right, I mean mine was more hands-on, okay? Like an angel I would only take ordinary shares, and like an angel I would never attempt to coerce. If I couldn't persuade or influence, it's over. So no fancy shareholders agreements for me. You know, it's your company, I always have this thing, look, it's your company, it's your decision. But that seems a very brave choice to me. You know, those days we were all, I think, very influenced by 'Yes Minister' and I saw myself as a Minister here. Sorry, as the civil servant to the Minister, yeah, I was in a position of influence, not a position of authority. And that's what I've learnt and got good at. And angels can do that, angels often do that. But by the time you move on to VCs, with whom I've always had a love/hate relationship, I mean I'm much closer to VCs now, I both invest in them, I've got three VCs who manage some money for me, one of whom I'm on all of their committees and I've got to know really well, because they've helped me diversify out of banking, doing deep tech in lots of different areas. So I totally understand VCs but I'm not a VC. I'm definitely more of the operator side rather than the investor side, and I tend therefore to find common cause with management, helping them very often. It's known nowadays, the companies I'm involved with very often, it's handling the VC is as important as handling your early customers.

[0:49:59]

*So how many of those can you do at the same time?*

Oh, I won't, well, five is my optimum number, five boards. I'm chairman of three of the companies I'm on at the moment, so I'm on five boards at the moment, but I'm

chairman of three, which is a lot. But yeah, five. I've been on six, I've been on six boards before now. But no, five is as many as I can handle. And it is a personal limitation. I think people who had kept better records, or had a better memory, or were more organised could probably handle a few more, but I doubt a normal person could handle more than ten.

*And can I ask – tell me to mind my own business if you like – but I mean what's a typical investment in one of these?*

A typical investment, first investment is about 100 grand. I try, then I follow on. There is a type of angel investor who is a one-round investor, who just puts money in, doesn't follow the story, finds something else to put money into, and they boast incredible money multiple returns. You know, because they've only gone in at the cheapest rate and their survivors are tremendous. But they're not very helpful to a company. So I will put in an appropriate amount, often to lead, but otherwise to follow at a respectful level, a round. So I just try to fit in at each round and take a round, which has its own dynamics. A round of investment is much more important for the company than it is for the investor. So I'll try and fit into the first round I can go in, if I'm leading it, put in at least 100 grand and very often rounds are better with multiple angels so I don't try to dominate it, but get it closed. And then follow on. And then, I mean I've invested multiple millions in companies as they've aged and I've done bigger bets later, because some of my earlier bets have paid off in spades, so I'm nowadays, I can do quite sizeable investments. But, you know, I'm also very leary of companies that take in too much capital. I don't think I'm good, I can't help a company who's in a sort of blitz to, you know, spend more than anyone else and buy its market. I've never done that successfully and I'm suspicious of that as a methodology. I like companies that learn how to manage their cash, that grow while learning and don't just leap into maturity, because I think they can develop a culture that's going to have better decision-making capacity, which is a key test for a company to me. You know, can a company get a culture that makes sound decisions reliably over time. Because the ability from the outside to influence a company reduces as it grows, and properly so. You know, you've got to, in the early days you can make a big difference. In the later days, you know, unless- in the later days you make a difference in the small print of your investment agreements. So I don't mean

the VCs and private equity, they have huge influence on what they're doing, but they do it with methods that aren't influence and teaching and they're not my methods.

*So did I pick up a moment ago that you said you're happy to be involved in companies where there are other angel investors?*

Oh yeah.

*There are people you like working with in that capacity are there?*

Well, I do a lot with Cambridge Angels, for instance, where there's a lot of very smart people with a lot of experience in situations and so I mean if there's a company that wants to raise 500 grand and I'm leading it, I sit there and think, if I put 500 grand in, I feel I've got my shirtsleeve caught in the machine. You know, it's too much for me to walk away if it fails. They're dependent upon me to follow on later. Far better that I put in 200 and I find half a dozen other people to put in 50 grand each. Okay? They've got the same number, but I've got people I can talk about it with, people who'll test my thinking, because I'm wrong as often as I'm right. I refer you to my 'get it right second time'. Well, there isn't a second time in this kind of decision making, so I like doing it that way and they reciprocate. So I follow them into rounds, so I get some diversification. And that is angel investing, that's an unspoken community that, you know, we don't... nowadays we sometimes use nominee accounts and syndicate more formally, but at its best it's just an informal thing, phone around, hey, I'm doing this, I think you'd be interested, can I send you the papers. And that works really well.

[0:54:59]

*Can I try and pick up on a couple of themes from the companies that you've listed as both finished projects and current projects. I mean you mentioned one criterion was the kind of size of the company, the number of staff and the stage of development and so on. Is technology an issue in any of these? I mean two things that I think I've picked up from here is there's quite a few mentions of cloud these days and are there a couple of instances of AI or machine learning in there? I'm thinking in that context of Transversal perhaps and Century-Tech.*

Yeah, and Thought Machine and Form3. Yeah, those are my present themes. I reckon I have lived through four generation changes of technology, okay? The PC on to the local area network, on to client server and now on to Cloud. And each of them – I’ve no responsibility for any of them – but each of them has happened and each of them has given an occasion for a generation change to take place in application software. So it tends to be there’s an opportunity for challengers to come along when there is this change of platform, challengers to come along with a new generation of offering. And that’s when innovation is at its maximum and that’s where I like to invest. So I got very excited about cloud. So I would say that Braid rode the journey from the PC into the LAN. Dovetail rode LAN into client server. And my current generation of companies are all about cloud native, so Thought Machine, Form3, Century. Transversal I guess came in at LAN and went out at the very beginning, Transversal kind of was an intermediate step. But yeah, so when there’s that big economy of change, I mean nobody changes an application if it’s good enough, and I’m in the application world. So when they changed, until they come to change the platform it’s sitting on and then they look around and they’ve got an occasion to change vendor, and that’s when the whole generation change happens. So when a platform’s established, all the consolidators come out and they start buying up the tech companies, because big companies can’t innovate. And big companies get big in each generation and then new companies start when the change happens. So in cloud there are two themes that I have enjoyed. One is the SaaS platform, which is really just the cloud generation, I suppose. So subscription billing, everyone now properly on the same platform, subscribing annually, all using the same code, so support overhead is minimised, it’s really just product improvement. So I like platforms, the high spot of which is of course an online marketplace, which I haven’t really done in its entirety, but the platform play. So that’s what Thought Machine is, that’s what Form3 is involved in, that’s what Century’s doing. And when you’ve got all of your data on a platform that’s fully cloud native, you can then do all sorts of AI decision support. So one gives you the operational efficiency of the cloud and the other gives you the decision, the capital efficiency, if you like, the decision making capability of big data. So those are the two dimensions in which cloud broadly enables business to innovate and improve and do, you know, better, faster, cheaper. And that’s what business is all about. So I’m not an engineer, I don’t get involved, you know, I

observe these things happening, other engineers make it happen and then I just try to find lucrative areas where better, cheaper, faster is going to make a difference. And then it's all down to the people. The opportunities are myriad and there's no set shape of these things, but there is a set pattern for the companies, you know, they need to have the right culture in their management team and, you know, I think that being there ideally spotting it and finding it and not touching it, or if it's going a bit wrong, helping. But again, you can't help them in a particular, I don't know how to do it better than they do, they have to find a way and I have to keep telling them when, well that's not good enough, try again, is my approach to teaching anyway.

[0:59:52]

*So better, cheaper, faster, I'm intrigued by Century-Tech because (a) Roger spends a long time telling me about it and he's obviously picked up some enthusiasm from you about it, but that doesn't seem to be particularly an example of better, cheaper, faster. It's kind of education done a different way, isn't it?*

Better.

*Better, yes, certainly.*

And yeah, not particularly cheaper or faster, I wouldn't have said. Yeah, that was, that was my first big foray outside fintech. I went into the land of the blind thinking that I had one eye, and I realised that it's the land of the blind because it's dark out there. You know, one eye is no more use than no eyes. It's a shocking marketplace. I got spoilt. Banks, financial institutions, insurance companies, you know, they all understand tech, they willingly accept technical risk, they will buy a better product, they have budgets, okay? Schools aren't like that, schools is the land of darkness where they don't respect technology, they begrudge it, their sort of role model is Mr Chips and a blackboard. So it's tough and it's been a very long path, it's taken twice as long and twice as much capital as I expected. So it means I haven't been able to get any venture capital involved there, it's entirely angel funded and I have put extraordinary amounts of effort into the angel funding of that business. Now suddenly, we're just closing around tomorrow, okay, which has been over-subscribed. And I'm not letting any VCs invest, it's still only one class of shares, okay, but we're

raising money at a 60 million valuation. Okay, from angels. And we're using EIS to the full. So there is – you're right – it was a tough market for technology. It's nothing to do with our product or our peers. I went there thinking, oh, the competition's pretty weak here, and I now know why, because they're living on pretty thin gruel. There's not a lot of money spent on tech and it's not spent very wisely because people don't care for it very much. But it's changing, it is changing. We made another classic mistake there, which is we went in there thinking, well the state is the biggest provider here, the state's got the most at risk and the poorly performing schools need more help than the others, and capital's flowing in their direction, people are trying to make the poor performing schools do better. Well, eight years later, we talk about Eton and Dulwich, okay, our top performers are all the private schools, internationally as much as in the UK, and the simple truth was, that the poor performing schools aren't performing poorly because of their tech. You know, there are other reasons that make them very difficult for tech to be successfully adopted there. So we started off thinking let's do good and let's maximise the do good, we've actually ended up turning round and saying, let's do good eventually, meanwhile let's survive, let's develop a really good product, and we're doing that with the private schools more than with the state sector.

*That's interesting. Yeah, I mean some very visionary things said about education for the future, aren't there, in terms of how it's delivered and what technology's involved, but one gets the feeling that it might take a few years for these things to..*

And, you know, we've got a few years. I mean the shame is, it's another generation of kids that won't get the benefit of it. But if teachers, I mean we mustn't, only teachers can teach, okay? They just need to use technology to teach. The kids love technology. If only the teachers would, instead of telling them to turn their damn phones off, if only they would learn to teach through the phones, that's how the kids expect to get experience nowadays. So we have to get teachers to adopt this. And teachers respond and say, oh, but you're trying to replace us. No we're not, we're trying to replace the textbooks, okay, that's what we're trying to do, with something better than a textbook, not just with a text online. We're trying to replace it with something better that will tell you, you know, how a student's doing, we'll give you hints as to what might work with this student. But just for a teacher to know, I mean



the teachers who do adopt it don't give it up very easily. I mean for a teacher to know how long someone's spent on their homework, okay, and did they do it straight after school or did they do it on the bus coming into school in the morning. That's information we can surreptitiously make available to a teacher, that a smart teacher learns from, doesn't necessarily use it formally but they just get to know their kids and see what's happening in a way that teaching when you don't know what's happening is so much more difficult.

[1:04:52]

*Has Covid accelerated this at all, d'you think?*

It did two things for us. We were lined up, this time last year, we were about to close on a VC led investment round and they pulled all the money away from us, further convincing me about the limits, frankly a social impact fund led the collapse of that funding round right as Covid started. So it started off, we thought Covid could kill us, but in fact we've now had two years of 100% revenue growth, two years where we've more than doubled our school usage. Our online usage has gone up, I don't know, at a much higher clip than that, I've forgotten the stats. No, so Covid has been immensely good for the business, although we nearly tripped up over funding. And we've now resolved that we will take Century to its full story without venture capital. It's easy to do that, you just declare there will only ever be one share class and venture capitalists balk. Because we can, we've now got sufficient, now we've got, you know, Eton renewing for the second time, etc, like that, people are beginning to believe that we'll survive. And the reason that big capital has been so leary about investing in [sound drops out briefly 1:06:11], has been so slow by schools that nobody's made money so far, there aren't any successful exits. The only unicorn with a product like ours is one of those unicorns you don't talk about that's dead and buried, you know, a unicorn that failed. An American unicorn, but they raised a lot of their capital in Europe, with a product a lot like ours, it was called 'Knewton' with a 'K', okay? Doesn't exist any more, and hundreds of millions were lost in it. So, there are historic excuses, if you like, why third party capital isn't very interested in edtech, despite all that they say. But it will change and it probably is changing as we speak, it will change and I suspect that a year from now we'll be fending off venture capitalists. But at the moment we've got this far just on private capital. And we plan

to keep raising money because it's a huge market out there, we're not yet competition constrained, so it's just a question of building a product takes time, adopting, for schools to adopt takes time, so it's never going to be like a fintech.

[1:07:15]

*That's fascinating. I'm sure we could go on talking about these companies all day, but can I ask you some big questions then about life and the future. I mean what do you feel is your greatest achievement in this career of building companies?*

Well, that in itself is. I reckon there are more than a dozen entrepreneurs like I was in the last century who I've materially helped in their first enterprises, as Roger did for me, as he's a common friend. So I think there are, it's those companies I'm very proud of. At least as proud of the one I started myself. I'm pleased that I feel I've pretty successfully had an after-career. I mean when I sold Braid in 1999 I'd made an awful lot of money and I didn't dream of retiring, but I did worry that I'd never do anything as good again. And I do feel that I've made the transition, if you like, from a start-up entrepreneur through to an angel investor and I've been just as successful financially. I mean I make a lot more money through other buggers' efforts, so to speak, now than I did in my own company. And I also think I'm, I think what venture capital has done is great and I'm sure, though I'm even further away from it, what private equity does is great, but I feel I've done something both to defend the values of small amounts of capital being added to sweat equity, you know, intellectual effort and small amounts of capital, testing, producing really good innovations and really viable corporate cultures. I mean the companies that I invest in are all different, but they're all a pleasure to walk around and every now and then I end up in the corridors – metaphorically recently – of, you know, a large corporation, and it's not better. There's no doubt I love the culture that is thriving over the last 25 years that is fuelled by angel investment, I think it's a really good thing that's happening socially. And allowing entrepreneurship, encouraging innovation, which big companies stand on. And we come back to, you know, and it ends up with, to me, business scandals like Dieselgate where you've got big companies who are just behaving awfully to entrench their business model. And now I'm getting all into Extinction Rebellion and Money Rebellion and just seeing, it's systemic that what the greenwashing that's going on, the way big companies behave badly. It's the small, you know, you could moan about

that, but small companies actually present a different and better model. And they have to co-exist, but I definitely feel I'm pushing on a big lever here with the success of small companies generally in the British economy at the moment.

*And that, I mean one of the things we try and bring across from the Archives of IT is to make the public and young people particularly more aware of what this does for the world. I mean what's the principal benefit, would you say? Is it benefit to the economy or creation of jobs or, you know, social change or, you know, what, how would the world be a worse place if you weren't doing this?*

I think it's innovation and kind of self-determination. Those are the virtues that I think are being advanced here, which are virtues that are not encouraged in large organisations, governments and large companies. So they're virtues to which lip service is often paid, but they're virtues that grow. Innovation, technical, corporate, financial, business model, all of these innovations start in small companies and so too self-determination, being able to, firstly, the distribution of authority and responsibility in a small company is much more obvious than it is in a large company and so the people grow, people develop faster, I think, when they're given authority and responsibility. And in a small company of course they also get quite close supervision, by its nature, so that's how it happens. It's not that companies don't wish to innovate and it's not that companies don't wish to have the personal sort of development of their staff, but they don't by their nature encourage it the way a small company does. And I wish we'd let more small companies grow slowly larger rather than have them all acquired at the end of the day, and also grow too fast. You know, I'm not certain that the- I accept that it works, that pouring money into companies in order for them to dominate their space and kill or buy their competitors is effective and vast amounts of capital is trying to get out of large companies into small companies through this method, so we've got to live with it. But it doesn't help the virtues that I look for, which come from a slower development, typically, of a really good culture and a really good innovation.

[1:12:59]

*So what would you say to a young person in the sixth form these days thinking about what they're going to do in life? Is yours a path to follow or is there some other advice that you'd offer?*

I saw it well expressed by Nicholas Taleb in his antifragility thing, which is a horrid word for a good concept. I think that what I got from my father was the confidence to set up my own business, and if you didn't get that from your father, then go and find someone who did and go help him, because actually everybody learns in small companies. The same lessons are available to everyone, and the same environment and the same security. There's far greater security, to my mind, from someone who has resilience, self-confidence and a wide range of skills that you'll get in a small company, rather than the promise of going to work for a brand name somewhere. So that's why I think I was very lucky; it came naturally to me and I never really considered the alternatives, than to get involved in early start-ups. I mean your Archives will also, I hope, have the careers of people who've done terribly well in large established companies. I don't mean it can't be done other ways, but the lessons I've learnt and that I would pass on are all contrasting to the large company experience. We help large companies, we end up being part of them. As I say, if I'd started my career at IBM I might still have been there and my brother retired from IBM having gone the same path I did. So I do think that there's room for both, but I'm definitely on the side of the small.

*What about the future? How is IT going to change in the future and how's it going to change life for us?*

Well, it's happening too fast. We've got a problem with IT, it's been over-successful. IT, young, ill-formed company cultures have grown into giants over in the States and they are going to eat us unless government cuts them down to size. So I think we've got a real problem with companies that are, banks as much as FANGs, you know, but we've got a whole set of corporations who are no longer complying to the national will and are lying and cheating their way to their shareholders' value. So I actually think that the next phase, we have to cut down to size. That is what Extinction Rebellion is about in one dimension and that's what the civil servants in Europe are trying to focus attention on. Would that they had the power and the smarts to do it.

And I'm afraid I don't see any sign even of the new government in the States addressing this. And China's going to be no better, China is simply trying to do the same manipulative stuff with the state behind it. We don't need that kind of manipulation, we can manipulate ourselves very happily through our lives and in concert with everyone else. We do have a good liberal democracy that, frankly, in a way I think tech is challenging at the moment because of what's going on with Google, with Facebook, with these large monopolies, who aren't paying their fair share and whose systems are bullying other smaller companies systematically, bullying governments. And so I think there is a fight to be had here and I hope that they don't just follow the Chinese model of let's let them lead in the vanguard, let's them control the citizenry and we'll just control them. Because I think there's a very real fear of that, that we'll all end up with a Chinese system and that California will have led us into that. But that's my politics, not many people share those. [laughs]

[1:17:00]

*So that's about managing the downside, is there an upside perhaps?*

Oh well look, I don't think we'll get to Mars and I don't think we should want to. So... look, I don't think we need an upside from technology. I think, I'm not tempted or understand the sort of the gamer's world of disappearing into technology, immersive tech seems horrid to me. I want tech to support a good natural embodied human life, okay? A lot of tech takes you past that stage and I think that's going to the dark side, frankly. So no, I think there are limits to what I want tech to do, as there are limits to what I want my business to do to my life. You know, at the end of the day I think business is there to support life, it's not there to replace life, and I think tech is there to support life. And that's a family life, that's a social life, that's a community life, that's a species life, you know, and other people just chase their own self-interest and push way beyond the reasonable agenda. So I'm more afraid in the long term, I think, of tech over-reaching itself than of it having to do much more than it's doing.

*A positive note. Is there anything else you want to share with us that I haven't managed to ask you about in the last hour?*

No, God, you have made me talk a lot. No. Look, I kind of like what you're doing, I haven't looked at it. I realise, yeah, you can tell me later about who else is on it and how things are going. No, look, I'm a believer in history, I'm a believer in the lessons that we can learn from it and also the way it can get manipulated. And so therefore, by having multiple, diverse sources of history, one tends to limit the amount of revisionism that can take place later. So that was the political thinking, if you like, that led me to support your initiative and, you know, I nodded when it started and I'm pleased eventually you got round to, surprised you thought I mattered at all. But it's good, it's good. I've had a great career and if other people can have as good a career as I've had, then you know, things are good.

*Well, thank you very much. It's been a fascinating conversation for me and thank you for your time.*

Well, well done for steering me in the right direction.

[1:19:33 recording ends]