



Paul Fullagar

Interviewed by

Richard Sharpe

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Welcome to the Archives of Information Technology where we capture the past and inspire the future. It's Wednesday, 26th February 2020 and we're just beside the Thames, overlooking the Houses of Parliament. I'm Richard Sharpe and I've been covering and researching the IT industry since the early 1970s. Software is an important part of the IT industry and although we may think that it only really started with the internet, still much before that people were developing applications which were vital for business use and it is a bit sometimes seen as a bit of Cinderella area, I think, of IT, but it should be given a lot more attention. And hopefully, making his application to the archives today, Paul Fullagar will be able to right that process.

Paul, you were born in 1950 in Canterbury.

Yes, I was.

What were your parents doing?

Well, my parents were, my father had come out of the army and my mother ran a second-hand clothes shop, which she ran for thirty-three years, in the High Street in Canterbury. And my father was a market gardener (failed) and ended up being just a gardener.

And had they been active as business or...

Well, they both came from very rich families in Canterbury before the war, before I was born and one went, my mother's family went bust, her father went bust. He was a big jam maker and went bust in the Depression in the early thirties. My father's family was also a wealthy family and all their property was blitzed in 1942 in the Blitz in Canterbury before I was born and all their wealth was ruined.

Canterbury was really beaten about in the Blitz wasn't it?

It was, heavily. Bizarrely, it didn't hit the Cathedral though.

No, no. And you went to local schools?

I went to a small school between the age of five and eight, and then on to Milner Court, which is Junior King's, Canterbury, and then a scholarship into King's, Canterbury.

And were you good at education, did you enjoy it?

No, I didn't enjoy education at all. I was heavily dyslexic, although it hadn't been 'invented' then. But I was extremely good at maths.

Were you bullied?

Yes, heavily. Heavily bullied, particularly at prep school.

How did you deal with that?

Erm, originally by just hiding away and keeping out of trouble and trying to be invisible and towards the end of it, standing up and hitting back harder.

Did you get into trouble for that?

Yes. It was always my fault, yes. But I, because I didn't know any other experience I thought perhaps that was normal, being bullied.

And you won a maths prize, I understand?

Well, when I was at prep school I got a hundred per cent in all my exams. In fact in everything and maths. And even Common Entrance B, which was an exam I got a hundred per cent, which is the only person in Britain ever to do, apparently. So when I went to King's, Canterbury I got what's called a Pauper's Scholarship, which is a special scholarship for people whose parents had been, fathers had been there and lived within three miles of the- it's a weird one. I like to pretend I won it, but in fact it was- well I did win it, but I was the only person eligible to win it. So it's nothing like a competition when there's only one entrant, I always say, you know, it improves your

odds somewhat. But my first term there, at King's, Canterbury, they put a notice on the noticeboard and I applied for the school maths prize because it was a paper they'd collect and answer the questions and hand in. And I won the school maths prize, beating several Oxbridge scholars at the time. And the headmaster phoned my father and said there's been a terrible mistake, and my father enquired as to whether I'd won it fair and square. Oh, by miles, he said. But he's only thirteen, he's not eighteen. And he said, well, if you look at his maths record he would win it. There was a bit of a fall out between me and the school and I virtually never attended a maths class again at school.

[0:04:23]

Do you see things in mathematical terms?

No, not really, but I do see numbers in colours.

You see numbers in colours?

Yes.

And do you see them in sequence?

No, but I – it's very hard to describe – I would say that at the age of ten I had nightmares, my mother used to wake me up and I was doing things like I was in a panic because I was going through prime numbers in my head and I got up to five-digit prime numbers and I'd forgotten the one that I'd last done and I woke up in a panic and a nightmare because I'd forgotten the previous prime number, because I used to like counting prime numbers at the age of ten, it just amused me. And the shape of them.

And so your writing was poor?

I couldn't read until I was nine. So I used to fake it at school. When we had reading round the class at eight years old I used to take the reading book home with me and

have my mother read the next sort of half chapter, working out roughly where it would be my turn and simply memorise the words, and so I faked reading.

Do you have a good memory?

I, since I was twenty-one, I have an astounding memory.

Outstanding?

Yes. But it only happened at the age of twenty-one. One day I woke up and it was there and whether I hit my head, I don't know, but it just changed overnight one day. It's quite an odd thing.

Sorry?

Quite an odd thing. But it suddenly started.

Yeah. But good for you?

That was brilliant, it was just marvellous.

So your writing was also covered with spelling mistakes is it?

Not now, it's not.

No, but it was.

It was then. And now I write prolifically and actually write, constantly writing on bits of paper, comedy skits and sketches and very into theatre and literature and film. It's gone the other way and always, people always ask me what the meaning of words are and how to use words properly. Bizarrely, because I learnt late in life I seemed to have learnt differently, I don't know why.

You were lucky you weren't in the normal stream, otherwise you'd have failed your eleven-plus wouldn't you?

No, I actually took the eleven-plus and passed it.

You passed it?

I actually passed the eleven-plus, yes, I did take it. We took it as an insurance policy in case- they weren't to know I was going to get a scholarship, and I would have had to have gone to the local grammar school. I did actually pass my eleven-plus, yeah.

Well done.

Yeah.

[0:06:44]

*So you come out of, you come out of King's College, King's School, Canterbury.
King's **School**, Canterbury.*

King's School, Canterbury, yeah.

And you decide to do what?

Well then, coming out of the school I was, I was always the youngest in the year, so I was seventeen when I left, because of August birthday, and I went to London School of Economics to study economics and computing. So my computing interest started really at the age of seventeen.

And you saw your first computer there?

I saw my first computer there. And in fact was involved in programming in ARGOL.

ALGOL?

ALGOL, rather. I call it ARGOL. ALGOL. Which was one of those things, it was all done on card, you may remember. And it was, it wasn't, the programming wasn't so difficult but the real issue - and it wasn't viruses or bugs of the modern day - the real issue was if you dropped the pack of cards [laughs], you got them out of order, it was a nightmare. So the whole thing, three days' work and just tripping up or spilling the coffee.

That's what I used to shout at the programmers in my research, 'Number your cards!'

Yes. But I went there and of course that was in 1968, so in the riots, the riots in 1968, and it was closed for six and a half weeks.

Were you sympathetic?

I was, no, I wasn't sympathetic. I was sympathetic to the underlying anti-Vietnam War cause, I wasn't sympathetic to them rioting. And I was also disappointed by the quality of teaching there, particularly there was a chap called Professor Alan Day who was in Maggie Thatcher's think-tank, who lectured on economics, who seemed to me to have the dimmest mind I'd ever come across. And on regular occasions in open lectures would remind him of my opinion, so I think they were quite glad to see the back- after one year I decided this wasn't for me.

How long were you at LSE for?

One year.

One year.

One year, I did the first year and then...

First year and then out?

That's it.

And then where did you go?

And then I decided, I spent the summer working on a farm because I came from sort of rural Kent, outside Canterbury, and I decided that as I'm good at maths they said I should be an actuary. So I saw this advert in the paper for Abbey Life then, run by Mark Weinberg, the new up-and-coming life insurance company, looking for trainee actuaries so I applied and went up for an interview and got the job immediately. So...

Where was that?

That was in '69.

Yes, sorry, where?

Oh, in number one St Paul's Churchyard. I remember it vividly. My office overlooked the steps at St Paul's Cathedral, so it was a very splendid place to work. And before I could join the actuarial department, they weren't quite ready, because I was free to join immediately so they said oh well, come immediately then, but we're not ready for you so would you mind helping out the investment director, who's a bit overrun. So I – John Gordon, who was a marvellous man, he was an absolutely brilliant chap, real mentor – and so I started helping him in the investment department, which consisted of just him, him and me. Because they had managed funds by Hambro's and various other people and they managed the managers, basically. And anyway, cut a long story short, I never ever did make it to the actuarial department because I ended up effectively being his PA with an office between him and Mark Weinberg and I ran the investments. So at the age of nineteen I had buying discretion on the stock market of up to quarter of a million, which would be something like twenty-five million or something nowadays, some ridiculous sum, but I had wonderful fun.

[0:10:58]

What did you learn from him as a mentor?

I learnt about getting things right and if you make a mistake you declare the mistake immediately. Don't cover mistakes. Share the mistake. If you're not making a mistake, if you don't share a mistake it makes people nervous, because everybody makes mistakes and therefore if you find somebody who never makes mistakes it means they're covering them and that makes you nervous about where they've made a mistake. About honesty, about hard work. Humour.

Do you enjoy work?

Love work.

Why do you love it?

Don't know. Just born to it.

It's the intellectual challenge of it?

The intellectual challenge, in part. An overwhelming need, certainly in the early years, an overwhelming desire to succeed and to try and make money. And the money wasn't for me, it was to prove the point that although my mother and father had both lost all their money in effect, I wanted to restore the family fortunes, just as a principle. Not to actually spend the money on anything because I used to spend most of my life working sixteen hours a day and many a time I worked and didn't take a day off for a year and a half. So it wasn't about going out and spending it.

Did you have brothers and sisters?

One sister.

Did she go to university?

No, no. She wasn't academic to the same... she went to a grammar school but she wasn't academic.

If you had stayed at LSE, what would have become of you?

Who knows? I'm very glad I didn't. I may have ended up the same way, I mean that was the early signs of being interested in computing in general and it wasn't called software or hardware then, it was computing, I think.

[0:12:54]

What fascinated you about computing?

Oh, it just clicked. The way the machine could calculate, I think. To me it was just a series of calculations always and the first program I wrote, in fact, was, I still love to this day and still stands up as a truth. And what it was is, it wasn't complex to write, but I analysed the top fifty fund managers and their performance, and the performance of their funds, but it had to obviously include dividend yield and market growth and so on over a period of five, ten and fifteen years, and looking at total return. And then I created a – and I think I might have even stolen a bit of someone else's program for a random number generator to do a random pin in the FTSE 250 or whatever, and did various random selections to do a comparator, would a pin beat the average net performance after all the brokers' expenses, dealing fees, churning and so on. And it proved that actually you're better with a pin. And that truth still holds to this day.

Did your bosses want to hear that? [laughs]

Well no, this was LSE, luckily. So this was not in... And in fact when I worked, went on to work, as I say, for two years at Abbey Life, the same principle applied. The other thing I did at Abbey Life, although I didn't join the actuarial department, all their software, and they wrote mostly their own software, was in Fortran IV. And to help them out and because I had quiet periods, I used to debug, I was a natural debugger. It's a bit like when looking at a set of accounts you can see the wrong number, I could look at sheets of programming and see the mistake.

Just like that?

Yes. And so I taught myself over a weekend to program in Fortran IV and then used to debug them, which I quite enjoyed.

Did they have their own machine?

No, they ran off, because they were part-funded by ITT in America and they ran off their capacity, overnight on their capacity and they must have had giant landlines going, you know, underwater landlines going across... but they used American capacity and processing capacity. They had small machines locally, but not...

[0:15:35]

Yes. You moved then after Abbey for three years?

Four years. I did a sandwich degree at City of London Polytechnic.

Right.

Because I didn't want to leave the City, I was so addicted to the City and any way I could... And I was actually thrown out by John Gordon who said I was far too bright to be a PA, I must go and become an accountant or something, or move to the actuarial department, which I'd long since stopped wanting to do. And so with two weeks' notice I just walked round to the, literally walked round to the City of London Polytechnic and walked into the reception and said I'd like to join you here, and start in two weeks, have you got a place? They said yes, and there it was, so I gave two weeks' notice and just started being a student, literally with two weeks' notice of thought or...

Fulltime student or...?

It was sandwich degree, which was perfect, yes.

Right. Why was that perfect for you?

Because it meant in the six months of the year I could earn money to help pay being a student, because I only got a very limited- they paid the fees but didn't pay anything else, because I'd already rejected one, walked out on one university degree, so in those days – well now, you pay for everything – but in those days they would pay for everything, but not the second time round if you spoil your papers the first time.

Where were you living?

I was living in Redcliffe Gardens in Kensington, in Earl's Court.

Well, that's going to be expensive isn't it?

Well no, shared, you know, three of you sharing a room, you know. So it's not, it wasn't that...

And what jobs did you do then when you weren't at...

The... the first job I got was working as an accounts clerk for a petrochemical company called Lummus, I think it was, in Mornington Crescent, which was incredibly dull and I only just survived because I was largely making tea and coffee. Second one I did was as a management consultant for Unigate, the dairy division. And well, yes, dairy division, and first one, they set me up with what's called, in rugby terms is called a hospital pass, to sort out some paperwork for the London milk division, because it was very unionised and they wanted to change the way they had the milk control systems and they didn't want to deal with the union so they put the student intern in there as a sacrifice, you know, and they thought it doesn't matter if we lose him, they can eat him up and spit him out and we'll say we tried. As it was, I went in and told the union that – and I was reasonably alert enough to say that I think this is what they're doing to me, by the way, so why don't we have a bit of fun and have them over and actually agree something. And we simply, I said now, you've got to make your input, so instead of having the form go sort of top to bottom, we went left to right. It was exactly the same form but we just turned it round and they all agreed that now it's their form and not management form. And it was made as a system, to the complete amazement of the whole...

It sounds like I'm Alright Jack, the Peter Sellers film.

It was just one, you know, and for me it was almost tongue in cheek because, you know, it didn't matter if I got fired or anything, it wasn't the end of the world, it was, students often did not finish their sandwich placement, it could happen.

Because, we should explain, Cow & Gate were delivering milk to residences weren't they?

Yes, yes.

As was the Associated Dairy, as was the Express Dairy.

Yes, there was literally door-to-door milk delivery. And the second project they sent me on was harmonising the pricing structure, discount pricing structure of the milk and cream – sorry – the cream and cheese and yogurt division, products division. And I remember the best thing about that was come Christmas I was given four large Stilton cheeses, which was just wonderful, because I could give them away as presents and I was just thinking, I'd never seen a whole one before. It's little things you remember, just absolute delight. And travelling all over Britain doing this, to all their different depots. And again, that was quite fun, driving around Britain, I'd never done that before, driving round and seeing some of England.

But you were a mature student by now.

By then I was twenty-three, yes.

[0:20:06]

Yes. And what was it like therefore being back, being a mature student?

Oh, it was fine, being back. I was absolutely fine. In my second year there I was social secretary of the student union as well, which although it was a sabbatical job, I actually ran in parallel because some of my hobbies were, I used to play in rock bands

and run discotheques, so when I found their Ents systems were absolutely dire, I took over the whole thing immediately and just, and built up a really, it was the largest student union in London, City of London Polytechnic and we ended up with the best Ents probably in Britain of any student union, I say arrogantly.

What great bands did you manage to get in?

Oh, things like Free. I remember Free, Marmalade. I think one time we had Black Sabbath, even. I mean fantastic concerts we used to run for a little student union.

Where were they?

They were either in a hall in Jewry Street near the Minories in the City or just off Aldgate East, a thing called Fairfield House or something, or Fair House, a building. One of which I converted into a disco with sound and light – and I built it all myself – sound and light systems for 500 people and I was the only DJ, I had total control. Tremendous fun.

And so you passed? You got your degree?

I got a very poor degree. I got a 2:2, even though in part one I got a first and a first in my thesis, which was on the betting shop industry, which is a whole nother story, which will take half an hour, I won't go into. But anyway, I got a first in that. Because when I was running the Ents, I was running it there as a Marxist student union, except for me, they didn't put a candidate against me because they wanted someone to run the party and properly, as it were. So I used to run buses so they could go to their protests, whatever, and all the buses would arrive back at the student union disco on a Friday night dead on 7 o'clock and pile out straight into the disco, so I had a guaranteed audience. And I worked out that they'd drink enough to pay for their bus fares, so the buses were free to go to the protests, because I worked out that that's how I could guarantee my audience and get that kind of critical mass so everybody comes, because if enough people come to it the rest'll come. And so, but I got hauled up in front of the vice-chancellor on a couple of occasions, who I had a very bad relationship with, who couldn't understand if I wasn't a Marxist why did I

have to do all this for them. And I kept pointing out, it's freedom of speech and if they want to protest they're allowed to.

Do you generally have a problem with authority?

Yes, probably. Yes. I mean I respect authority and I don't break rules.

You don't break rules?

I don't break rules, you know, but I do argue against the rules are stupid. And I'm not even sure I know what authority is, to the extent that, a very good example recently in the paper, the government, just this week the government have said it's going to ban people burning green logs. And I thought, and that's the kind of, the authorities where nothing can be more stupid. No one burns green logs because they don't burn, and how are you going to police it. And I've written a comedy sketch on it. Anyway, but it was just the absurdity authority, so do I respect authority? No, course I don't, because it doesn't deserve respect, because most of it's very stupid.

[0:23:53]

You also passed your chartered accountancy exams, did you?

Yes. I got, management account it was in those days, or management account and well, having finished- sorry, the last job I did there, when I studied as a student, was I spent six months at Rowe & Pitman stockbrokers, in the investment analysts' department, where I had tremendous fun and got a couple of awards.

Again, did you use computers and programming?

No.

Not at all?

No, not at all there, no. But I did use my knowledge of being at Abbey Life for two years, of being on the other side of reading these. So that, I enjoyed that very much.

No, so then at the end of the degree they came round on the milk round and one of them was Overseas Containers Ltd, which became P&O Containers, and they were looking for trainee accountants and I decided that I needed to do something real rather than being an investment analyst or whatever that was just shuffling paper, but they don't actually run anything, I wanted to do something, so yeah.

So you moved there? 1975.

'75, and so I then, as I was a trainee accountant I thought I'd better be qualified as an accountant, I did that in one year.

Right. And you were there seven years.

Yes.

'75 to '82.

Yes.

You progressed quite quickly did you?

Yes. I got promoted. They were incremental promotions but I roughly got promoted every six months.

Every six months?

Yeah. I ended up when I was controller of a large division, after seven years.

Did you enjoy that?

Loved it.

Why?

Travelling the world. All over the world, I mean shipping's fantastic. You get to understand the whole world because you're moving goods from one country... so every country you go to, you're working in it so you understand all the nature of the people, the products and what they do and the whole world comes alive and it's enormously exciting. And it's a very valuable thing, the moving of cargo between countries and world trade has been for hundreds and hundreds of years, a most fascinating area to work in.

And this was a period of containerisation was it?

Yes, it was, yes, and we were gradually containerising each different route, so I was involved in the containerising process.

Right.

Great fun.

And so the death of the docks, the traditional docks in London, the rise of Tilbury, etc?

Yes, Tilbury was always there, but I was very involved, by the time I got there, Tilbury was just about dead. Sorry, Tilbury was open but the docks of London were dead. But I got very involved in the closure of docks in Liverpool and the move to Seaforth, container terminal, and had to deal with, again, was sent out as a junior accounts trainee to do some jobs that others wouldn't do. Got away with it.

So you had to deal with the Merseyside dockers did you?

Yes.

Oh, goodness me. How was that?

It was alright, because I – a little anecdote – I was there, they still had some break bulk cargo in one of the areas and these were our ships as well, we needed to get them

sorted and the dockers were being particularly difficult. And they just get it in their heads sometimes to be very obstructive. And so I was sent along to go and see what the problem was. It was an operational matter but they sent the accountant's junior because, you know, no one else wanted to go. Anyway, I eventually found them on the docks, they were in the sheds playing cards for money, you know, all sat down on bales or whatever, you know. And I got the, who are you, and what are you? And I said, 'Well, what are you doing?' And they said, 'Well, we're playing cards, young man'. Said, 'Oh crikey', I said, 'that looks jolly complicated'. 'Oh, it is', they said. Then one of them had the bright idea, 'Would you like to play?' And I said, 'Well, I don't think I know how' I said, 'but it looks quite fun', I said. Anyway, cut a long story short, I said, 'Alright chaps, now it's like this. I'll give you your money back...

[laughs]

... if you can get this ship unloaded by dusk tonight'. I said, 'I'll give you your money back now, but this is between men, a promise you'll do that'. And they said yes. I said, 'Otherwise I'll come back and play cards with you tomorrow'. 'No, no!'

What was the game?

Playing three-card brag. Yeah.

And you just saw it, did you?

Well, I've always been a card player, so I learnt at an early age, so it was just a bit of fun.

You could have earnt a living as a gambler couldn't you?

Well, I did when I was at City of London Polytechnic, I used to work for a professional horse race gambler. Horse and dog race gambler and have teams of people out in what's called tote rigging. Which is legal, by the way, it wasn't an illegal activity. In the old days, where you could put bets on the tote, on the course, but you'd also have tote odds in the bookies. So all you had to do is send a load of

people to- find a very small meeting and put a load of money in on the course, so warp the odds on tote and then effectively collect the money by putting the bets on in the betting, much more on the betting shops on the favourites.

Rather a good scheme.

It was a very good scheme and I used to have teams of people from the City of London Polytechnic going out for me. Anyway, yeah, so I'd always been a bit... I'm not really a gambler.

You're not addicted.

Not addictive gambler, but I do like bets.

[0:29:51]

In that seven years you're at P&O are you using computers much?

Yes we are.

For what?

For accounting, certainly. For all the accounting. And for, they used it for manifests and bills of lading and for container control purposes, and scheduling. In fact, OCL had – and I was right on the edge of it but not really involved – it decided to upgrade its computer power and IBM lost the contract and introduced a firm called Amdahl.

Yes.

And in order to replace it and to use the Amdahl computer, which was much bigger, they had to sort of take the sides of the building out with cranes and they had to run a mile water, source of water for cooling from a mile away to get enough water pumped into the building to cool it. I remember the kind of the pure logistics, and it's now less than your mobile phone that this machine did, and it was a whole floor of the

building. But it was the second most powerful computer in Britain after British Airways at the time.

Because Amdahl was a very big powerful computer, which was IBM compatible.

Yes, and so it really was quite something impressive. So we, as an organisation it was actually very, when you think about it, had the second largest computer – commercial, outside government – after British Airways. So, you know, they were very serious about using computing as the prime tool of management.

Where was this based then, P&O?

In Aldgate, on the edge of the City.

Right. And that's where their computer was?

Yes. In the head office, yeah.

That's where you'd have to have it then.

Yeah.

Yes. '82 you moved to Ellerman Lines.

Yes. Well, I got headhunted across to be- originally they headhunted me to be group chief accountant.

Right.

Ellerman Lines had got, were running into trouble and was losing money.

What was the trouble?

Oh, gross incompetence of management.

Sorry?

Gross incompetence of management.

Right, okay.

And old school, old boys, you know, [puts on accent] terribly like this, you know. Lovely, large lunch, cigars all round. No idea what they were doing. No idea what they were doing, they weren't ready for containerisation, they were living in, you know, thirty years before. You know, the most important thing they had on their minds, whether to sack the director's boardroom dining room chef and get a better one. You know, while Rome burnt, as it were. But er, so they recruited me as chief accountant and within – and they'd recruited a new finance director at the same time – and within nine months the new finance director turned round to them and said, look, this is pointless. He said, Paul knows far more about shipping and everything than me, he said I'm in charge of him but actually he's running it, he's running me now. So, had an office somewhere else, so he said, I'm off, you need to appoint him. So within nine months I became group financial director and some sort of twenty years younger than everybody else on the board, which was an interesting experience.

Indeed. You were thirty-two then.

Yeah. Yeah.

You were there five years.

Yes.

And you say that you turned it round.

Yes. Endless different things I did. It's a very good position actually, being group financial director, to turn things round. After a year, so after two years, it was owned by the Lady Ellerman's trust and things at the time, and after two years the Barclay

Brothers bought it, David and Frederick Barclay bought the whole Ellerman Group, including their breweries and various other things, which included the shipping division, and actually moved their head office into the top floor of our building in Camomile Street.

[0:34:05]

What were they like to work with?

Well, to be honest, David and Frederick and I got on like a house on fire. I mean probably better, I got on better with them than probably anybody I've ever worked with. They're an absolute delight, but in a way you had to be a me to get on with them, because a lot of people couldn't get on with them.

Sorry?

A lot of people didn't get on with them.

Indeed, that's why I'm asking you.

Yeah. The one thing they didn't like is people who toadied and of course because they were quite domineering, people toadied up to them and I have endless anecdotes about me, the time I spent with them. Because they seconded me away a lot from the shipping company to look at other projects, so I did the whole feasibility of whether they should buy Sealink, around Britain. And literally, their style would be to say, call me up to their office one morning and say, we're thinking of buying Sealink, they said, here's the file, they've got nine places that we want you to go to, need a report by the end of the week. If you look outside the window there, you'll see our Roller there ready to take you to the helipad, we'll see you on Friday. And that's what you'd get, that's the briefing, go sort. Which I loved, it was tremendous fun. But if I don't talk too long, one wonderful anecdote I have of them was at the time I played quite reasonably serious rugby, club rugby, as a prop forward, and I'd had a fair bashing at the weekend, the whole scrum had piled over me and I'd gotten sort of half-knocked out and a cut above my eye and damaged all my arm and so I had sort of plasters over my eye and face and whatever, arm in a sling from the Saturday's rugby. Nothing too

serious, but you know, usual prop forward stuff. But on the Monday was the Christmas lunch – it was January and the Monday was the Christmas lunch, they had it at one of their hotels. So I was determined to go, my wife said you can't go looking like that. I said, I'm going, I don't miss these... They invited the chair, the chairman and the financial director of all their UK companies to this. So I turned up and I was running slightly late so I got there just before they sat down and burst into the anteroom where they were all having drinks and so David said, 'Where have you been, Paul?' And there was a silence in the room, and I looked straight at his eyes and I said, 'David, there's no bad debts in our company'.

[both laughing]

And he just loved it. And so...

Can you tell them apart?

Yes.

How?

Oh, I just can instantly.

You just can, right.

Just can, yeah.

Okay. But you decided to organise a management buy-out.

Yes, well what happened...

They wanted out, did they?

They wanted out. They called me up to the office and said, Paul, we're selling. I'm sorry to tell you, we're selling Ellerman's, we've got to sell it because we're moving

out of shipping, we're moving into whatever. I said, is there any one particular reason? It would help to know because I'd be asked that. He said, because having it in our portfolio of businesses is damaging our credit rating. It was a technical point.

Sure.

Yeah, but you know, if we have that in we get tainted by the shipping. And actually shipping is volatile, damaging credit... And I said, okay, that makes sense, well that's an easy thing to explain. And I said, well, I said, can we buy it, the directors buy it? He said well, said, I want it sold immediately. I said well, give us a few weeks. And that's when I really did start using computing. Well, I used a lot of computing, I'd say, at Ellerman's is where – because I was in charge of IT as well as finance – because they gave the finance director IT because computers is numbers after all, it's the same thing isn't it? I mean we all know that. It was in those days. So...

[0:38:11]

So you used a lot of computing to simulate what you could do?

Well no, what we did, well the first thing I did is change the accounts system, which was dire, obviously, you can imagine in an old-fashioned company. But more particularly, I wanted to automate everything. So I developed this thing where every – we worked only on DEC, DEC PDP-11/44s, PDP-11/70s and so on – but they all had the same operating system and all the software we bought had to run on that operating system and had to have the same operating system software, and I made it an edict. And the reason for that was so our container control system, our accounts system, which was also our sales ledger ordering system, our manifest system, our bills of lading and so on, and then I did the magic thing by linking them together and saying you only had to enter the data once and then it can transfer. But the only way you could do it in those days, because there was no other form of interlinking, it had to all be exactly on the same machine and on the same operating system, on the same core, everything the same. But that worked and that gave us enormous advantage, enormous reduction in manpower, but also enormous advantage in speed and accuracy and so on. So that was important. And then when we came to, asked to sell

it, I was one of the very first users of, I had my own IBM whatever it was, the very first PCs, and I had spreadsheet software on it. That was before...

Who did you use?

I used a product called Finar. I'll come back to that later in the talk. Which was a financial modelling software and allowed you to, it was a spreadsheet but particularly based for financial modelling, which meant one could put up all the modelling for the buyout on it. And then live was all the analysts from the VC funds who came into the presentation when they, and they said yes, but what if the dollar moves from one something to one something else. And I said, just one second: bang, bang, bang, that's the answer. And they went, wow. Because in those days it was and they'd not seen it before. And I trained myself on it and did...

So you organised the MBO in '85?

Yes.

You were a part investor, you had some skin in the game?

Yes, not a lot of skin in the game, oddly enough, given that – we've never disclosed what we bought it for, but it was, you know, a reasonable amount. But we were only asked to put a notional amount, so sort of twenty-five grand, you know, not hundreds of thousands or anything, it was quite nominal. Enough that you wouldn't want to lose it, but not enough that it would bankrupt you if you did.

[0:41:19]

Did you look for Trafalgar House to buy it out from you or did they come to you?

They came to us.

Right. In '87?

Yes, but we had shown a bit of ankle.

Okay. You'd lifted the kimono just a little bit and...

Well, we had joint ventures with them. In the case of Trafalgar House we had, with Cunard we jointly ran Associated Containers Australia venture, which was a container, joint container operation to Australia. And oddly enough, we did the same with, we had a joint venture with Ben Line in the Far East as well.

Right. And so you sold to Trafalgar House...

Yes.

... and made a considerable amount of money.

Made enough, yes.

Enough.

Yes, yes.

[0:42:03]

And you joined Staffware.

Well, I was looking for, I was looking when I left shipping, you couldn't go back into shipping because you don't get many opportunities, it's a very volatile industry and it's big money and so you only get the occasional window. The reality was that it would be very hard to find another shipping company to buy and turn round. But I loved the idea of software, where you write it once and— well, any product where you write once and sell a million times. And clearly that's about publishing books, making records, music, and a third area was software. And for some reason publishing was a bit, a step too far for me and although I love playing musical instruments I didn't think I was really up for, that was kind of a world of its own. But the new sort of Wild West was software and so I thought it would be fascinating to get involved in software where you can write it once and sell it a million times.

And it was a company called FCMC.

FCMC, I came across, because FCMC owned Finar, the product that I'd used a spreadsheet, and it also had a product called Fin Group which was...

Fin Group?

Which was a pre-written package on Finar which was using this modelling capability which actually consolidated accounts. So you could, on one PC you could consolidate 500 companies, and it was the only product in the world that could do it.

You joined in 1988.

So in 1988 I invested and very quickly took over as chairman, because it needed direction, it was in a mess. It was only a dozen people, it was only a tiny company.

Where was it based?

It was based in London, in Marylebone.

And who had found it?

Founded it?

Yes.

John O'Connell.

You get on?

We still, we had lunch the other day, yeah.

And he was very technical?

No. He was an accountant too. He's a dull old accountant like me.

But you were executive chairman, not just chairman...

Well, I was non-executive chairman to start with, but then over time I got more and more involved and then eventually we split the management of the company between John and I.

There is an argument in management that you shouldn't have executive chairmen, you should split the two.

Yes, I know, because I went on to chair a load of public companies where all the compliance and all the various things... but I think it's alright if you, as long as, well, effectively there were the two people running the company, John and I, and I was more the City-based, organised, eventually organising the flotation and whatever, because I was more City-based and he was more, I suppose I looked outwards, he looked inwards, if you like. But we both had executive roles. It didn't necessarily conform to what, you know, what people think is the right way to do things now, but it wasn't all power in one person though, so that extent it did comply.

You obviously have this immense technical ability and now your managerial ability is being tested. What are you like as a manager?

I always thought of myself as more as a manager than a technical.

Did you? Right.

Yeah, yeah.

[0:45:33]

What are you like as a manager then?

I have very strong management theories. I believe in responsibility structures not authority structures. I believe in flat management. I believe in respect and that everybody matters. So everybody's equally important, they just have different roles to play. And the best example I always used to use was that the girl on reception – and by the way, that sounds sexist nowadays, because assuming it's a girl, but it happened to be a girl on reception – is probably, you know, is equally important to the executive chairman. In fact in many eyes is more important because if she's sitting on reception and the first point of call when answering the phone, if she hashes it up it could destroy your business. Whereas actually, the executive, by the time it gets to the executive chairman largely most of the stuff's been done and his ability to destroy the business is somewhat marginal compared to the receptionist. So which one of them has more power and which is more important, it's an interesting piece of logic, you can argue all day, but I do think everybody's equally important, they just have different roles and responsibilities and are ordered differently according to their contribution. But they are, everybody's equally important.

Do you think you're good to work with?

That's for others to say. I don't know. Most people...

You have an impression though, don't you?

People always say they'd always want to work for me again, yeah.

They do?

Yeah.

Okay.

[0:47:09]

How did you build this smallish company with just a handful of people, based in London, to an international software house with sixteen countries, with over 350

direct staff and market leader in business process automation software? How did you and your colleague do this?

Well, the first thing we had to, when I got involved the first thing I did was we were already developing, we were developing actually a mortgage system, they were, when I got involved and which wasn't really working very well. But it was a generic system, the mortgage system, where the business process of applying for a mortgage and processing a mortgage application was to be automated. And the more we looked at it, we realised it was a generic product and it would apply not just to mortgages, but to loans and not just to loans but to... and so on. And that was, I said well, this is a business process, it's a generic business process, which was then called Workflow. And I very much liked the idea of that because what I'd effectively done at Ellerman's was create workflow. You know, enter the data once, if this, go that, if that, go that, if that, go that. And so it was very much in keeping with thoughts I'd had when I was at Ellerman's with software. And I wanted generic products, obviously, rather than fixed products because, you know, write once, sell a million times. Didn't work if it's bespoke.

That's what I meant in the introduction about using packages and the fact that they become embedded inside companies. They may not be terribly sexy, Wordflow, but it's absolutely vital to the company.

It's wonderful stuff, because of course once you get it in a company this is enterprise software, this is core software, you don't put it in and out every day. So it's...

Did you sell it or rent it?

We sold it always. In fact, almost the entire time it was sold rather than rented. But it was sold and then with a maintenance agreement and again, the way I always looked at it is, in effect, the income, we tried to pay the bills out of the product sale, but the value of the company was never in the product sale, because you're only as good as your next – as they say in football – you're only as good as your next match. You know, having sold it and done, if you don't get any more customers the business is bust, so the real value in the business was the annual maintenance annuity stream, and

it was built in as annuity stream, that's what I was always after. And we did that reasonably successfully.

And they would get free versions of the new software would they?

Yes, they'd get upgrades. There'd be upgrades included in the maintenance fee. Absolutely, yes, yes.

[0:50:10]

And during this period we had the Y2K farrago, perhaps.

Yes.

Did you think it was a farrago?

Yes.

Tell me more.

I went to a couple of lectures on it, one of which – I wish I could remember the name of the fellow, probably just as well I can't – who stood up and said that all the planes would stop flying and if they grounded them all there wasn't room to actually land them all. All of which was actually untrue and this was rubbish, and it was a complete farce, as we all know, looking back. I know it's easy to look back and say hindsight is wonderful, but I couldn't really see that it was going to be a major problem. And it wasn't a problem at all, it was a non-issue.

But it made consultants huge amounts of money.

Well, yes. So we have to look to see what was the driver behind the panic. [laughs] I say no more.

[0:51:15]

You built it internationally. Tell me about operating in different countries.

Tremendous fun. It was a very generic product so we, we were quite happy for it to work absolutely anywhere. And we decided that, you know, as with all software, it wasn't country specific at all. In fact, a lot of countries are much more process orientated than perhaps the UK is. And so we started by having resellers in different countries as we, we'd go to sort of European computer conference or whatever, you know, at all the stalls and we'd have people looking for new products to sell and we'd appoint new resellers. It's a gradual process. And then we eventually got to the point where I turned round and said to John, look, we need to own our resellers because we're, two things are happening, one is we're giving away half our margin, but secondly we're disintermediated with our customers and we really need to be next to our customers and own our customers. And the reseller doesn't necessarily share the common objective with us, you know, doesn't necessarily have common goals with us. And so particularly accelerated by the fact that we were looking at the possibility of floating the company on AIM. And of course, if you're buying resellers you boost your revenue as well, you get a critical mass, both in terms of number of people and revenue, you know, standard things. So we actually went round and bought a number of resellers with shares in the company.

With shares only?

Yes.

Very nice.

Yes. Which means not only had we achieved what we wanted to do, but also we had them engaged as part of the family.

How did you integrate them?

Well, as they were resellers they almost carried on as they were. And as they were in different countries they didn't need to be integrated, they just- and they were already using all our paper and logo and everything else. There wasn't an integration issue, that was never an issue.

What was the average sale of your package, price?

It really varied greatly. It really, really did. I mean we could do £300,000, £400,000 sales and you may do a £20,000 sale. We were obviously looking for the larger sales and it's based on the number of users.

What platforms did it run on?

Pretty well most platforms. I'm trying to think back then. It was not an issue.

Right. It was running on Unix, was it?

Yes. It ran on Unix.

Did you bother to transfer it to the IBM AS/400?

Yes, we did.

We did, yeah?

Yes, we did. And AS/400, yes. Both. Both Unix and AS/400.

And in Linux therefore, I imagine? Yes.

Yes. Although we didn't have enormous demand by the time – I left in 2003, so we didn't have enormous demand for Linux versions.

[0:54:50]

And you left in 2003...

Well I, two thousand and... we floated the company in 1996, which I organised.

That was on the AIM, on the smaller market.

Yes, on the smaller market.

How much did you raise?

We raised... I'm trying to think now. The market cap I know on flotation was twenty-six million, therefore we raised about ten million. We didn't place any shares, the owners at all, we just raised the money for growth and expansion and pay off debt. So...

Four years later you move to a full listing.

Four years later I moved it to a full listing, in amongst the dot.com, dot.com bubble, just before it, I should say. Just before the worst of the dot.com bubble actually.

Good timing.

Yes. Well, we moved to a full listing for a number of reasons. It was a delicate balance but our brokers were keen on the fees. No, they were keen on the, they thought it was better for us, sorry. The, yes, so we... And I organised that. And it wasn't, I suppose the value towards the end of 2000, yeah, 2000 when I stepped down as deputy chairman, having been chairman for twelve years, because my first wife was very ill and I needed to spend more time at home.

Right. And so eventually the company was sold, you retired from the board in May 2003 and eventually the company was sold. When you stepped down to be non-executive deputy chairman in 2000 you also joined the board of Marlborough Stirling as a senior non-executive director.

Yes.

And this is to get them ready for a float, is that right?

3i's asked me to do that, yes.

Right, what did they do?

[0:56:55]

They did, they did insurance software, banking software, mortgage software. Not so much banking software, largely mortgage part of banking. A lot of insurance software and wealth management software.

And they had 1,600 staff.

Yes.

A bigger organisation than Staffware. What was the, how did you manage to do the float?

Well, it was done by UBS and they needed someone on the board who had floated a company before, basically, but also in software and technology and so on, and persuaded me to join the board and assist and help.

And you stayed until they were sold.

I stayed until they were sold. But there were some traumas in the meanwhile.

What were they?

Well, in the end there was a significant difference between myself and the non, along with the other non-execs and several of the executive directors, between us and the founding then executive chairman. And we have to be careful because this, if it goes on public record I don't want to...

Okay.

But there were differences and we parted company with the executive chairman and there were various announcements, you know, RNS announcements which cover that

which would describe what went on. But I was jolly cross with UBS for not having done its due diligence properly, shall we say, on individuals.

So it was sold in May 2005.

Yes.

To United Utilities.

Yes, for more than we floated at, so...

Not bad.

... given the troubles that we'd been through it wasn't the end of the world.

That was a Liverpool-based company, United Utilities, wasn't it?

I, they're all over, yeah.

[0:59:03]

And 2002, you joined Teamware, which is a Helsinki-based company.

Yes. Well, again, they wanted a UK, someone outside Finland to be on their board. They were involved in, Teamware used to be involved in, actually in Workflow software, that was how they knew me. But in particular they'd now moved on to doing business software and mobiles for Nokia. They were effectively a Nokia supplier.

3i seemed to be using you as a bit of a point man.

Yes. No, they did, yes. Yes. And I knew a few people in 3is and so...

Sorry?

I knew a few people in 3is and I was quite interested, and I was particularly interested in processes on mobile phones and I also quite like Finland, so...

What draws you to Finland?

I don't know, I just quite like Finland, I still do. It's funny isn't it, you just like some places.

Oh sure.

And I just found it quite refreshing to go somewhere different. Except for January when they had the board meetings here, because it was, as you know, in January it's pitch dark all night, all day so they had to get away from the SAD syndrome so they'd use me as the excuse to pile over to the UK.

2004 you joined Financial Objects.

Yes.

Now, here's an interesting company. Object oriented software was of immense interest to a lot of people and seemed basically to go nowhere. Is that right?

Erm... I think that's a bit unkind. I think they were in a difficult place because they were one thing nor the other. They were suppliers to, very much suppliers to the secondary banking market, tier two and tier three banking. Which is a, it's a fickle place to be, in a way. In a lot of transition, a lot of tier two and tier three, because they're relatively smaller, try and write their own software or do their own thing and some buy bits and pieces of what they were doing and it was a very long lead time to sell new product. And so although what they had in a product was very good, their old product was good, it's a different marketplace they operated in, I think, and they didn't make the best of what they'd got even, I don't think, at the time when I...

You were the largest shareholder.

Well, I joined, in fact I joined as a non-exec director because one of the executive directors knew me and said look, we need some help here, would you join. And so I just joined as a...

How did you turn it round?

Er, well, several things. The first thing we did, it became clear is that they had a very good user base and they were selling nothing new into them. They're not selling the upgrades into them, they're not... so in other words, the first thing to do is to work the user base. Second thing to do was on new sales make sure they got proper annuity stream from... and in negotiations always commute the sale price for a better maintenance price to...

So you drop the sales price, but have a higher maintenance price?

Higher maintenance price, the software...

Right. This is your long-term revenue coming in.

Yeah, create value in the business. Also to get them to hurry up a new version and certainly to complete it, not to try and complete it all the way across, but complete it module by module so at least we could shift it, you'd get something going. And because they were a new version under their contracts, they didn't need to give it away free. And so we started upgrading, the whole business of upgrading all the... So basically, I suppose in a nutshell, we did drive a fair amount of new sales, a lot in Sweden and abroad, but also drove, if you like, not trying to be nasty, but milk the existing customer base which was a very good quality customer base, and give them a much better service.

[1:03:28]

Are you a good salesman?

Yes.

You can close a sale?

Yes.

But you can talk a lot?

Yes.

How do you close the sale? When do you know when to stop talking?

[pause]

Just then.

Yes. [laughs]

Okay. And being an executive and being a manager, are you a butcher?

No.

Can you fire people?

Yeah. I have to. Yes, just do it, yeah.

You have to. How do you do that?

I say make a hard decision and enact it with great compassion.

[1:03:57]

Right. 19... 2007, excuse me, to 2016, you were non-executive chairman of Brady.

Yes.

What was that?

Brady's a commodity trading software.

Okay. More software?

Yes. No, no, stick to the financial software. It's all financial software, everything I did was financial software, effectively. Yes, Brady was, I was headhunted into that and it had sort of run into the ground and had a market cap of about five million, and they wanted some help to try and turn the business round. So I was fascinated by commodity trading anyway, I suppose it comes from the shipping days in a way. It's similar to shipping, I suppose, in that commodity trading's moving, is about moving commodities all round the world and international trade and so on. So it's in the same space, if you like, in a way, in my head. And it was fascinating and it was a lovely company. And the first thing I did, I joined in June and by September I'd recruited a new chief executive. But worked with the founder, Robert Brady, who was a delightful man, incredibly bright. He's not a businessman, but incredibly bright. The youngest ever Fellow at Trinity College, Cambridge. And his hobby is quantum physics.

And you grew the market cap by an order of magnitude from six million to sixty million.

Yes.

How?

Did a number of- both organic growth and acquisitions.

Okay. What do you look for in an acquisition, because most acquisitions in the software industry fail don't they?

Yes.

Why do they fail?

Well, I think they fail because if you don't see the real synergy then- there has to be a real synergy, it has to, otherwise you're just buying turnover and if you're taking ownership away from the people who used to own it and give them a load of money, they get bored with running it, so they leave and then the people who created the wealth, knew how to run it, have gone and you end up with what? And so unless the core software is there that you can use yourself and you can sell that, strategic values of selling that into all your existing customer base is of real value, then you know, just buying software companies because they're in the same business as us I don't think creates value. But in the case of Brady, they were buying software trading products in different market arenas, if that makes sense.

Yeah.

So the ones we bought in Sweden were in energy, so gas and electricity trading. Whereas originally Brady was in just metal trading.

Right, okay.

And so on, and in America we bought recycling trading. And I have to say with my hand on my heart, that was probably the only time I've ever been involved in buying a company in America that was a great success.

That was a great...

Was a great success, yeah.

Well, there seems to be a pattern. I don't mean you, Paul, have this pattern, but the whole of UK industry has this pattern of acquisitions made in the United States, they seem to have seen us coming.

Oh...

And they have sold us the most appalling stuff.

No. Yes, absolutely. Absolutely and it's a minefield, you know. But the answer to me is, do we want to buy this company in the States, I say no. And they're sort of knocking at my door in order to get me to even look at the project, sort of thing, because I start with the principle of no, whereas almost most things in life I start with yes, but. But I start with a no with US acquisitions, yeah.

[1:08:13]

What's the health of the UK software industry now in your opinion, Paul?

Very good.

Go on.

Very good. I think, I like the idea increasingly, a large number of very small start-ups, I think that's very important. I think innovation comes in small start-ups. I think we have a significant labour shortage, which probably worries me most, because I'm still involved in a handful of private software companies and if we were to ask what's their greatest challenge at the moment it would be getting the labour, which is why a lot of the time they're forced into- and in fact in the case of Financial Objects we acquired a Bangalore division, software division for our programming and, but even that's now become quite expensive compared to what it used to be. And then people go to Eastern Europe. People have been to Russia, but there's a nervousness about going to Russia at the moment, depending on what the nature of your software is. So yeah, so I think that labour shortage is a challenge, we need to educate more people for the UK to... Otherwise it's jolly expensive because there's a limited market and a lot of demand. So in a way the labour shortage demonstrates the strength of the industry, if you like, because if it wasn't strong there wouldn't be such a shortage of labour.

There seems to be, particularly in the public sector in the UK, an awful lot of big project failures. NHS for example, patient records. You've been in software for a very long time, why do you think that happens?

I think it's because the NHS, it attracts people I think who mean to do well, do good, I think they're honest and very caring people, I think, and a lot of people in the NHS outside the clinical side of it, I think even in the administrative side who care about clinical care as well, and I think the overlaying sort of theme behind the NHS is one of care and I get very cross when they get maligned all the time because I know from my personal experience that they've been fantastic. However, it doesn't make them competent to choose systems and processes, they really don't understand them, and they get large consultancy firms who, if I might be rather nasty, are largely populated by people who don't understand either, and who are heavily overpaid in my view, for contributing little to society and they put in systems. I mean I know from, for example, my own case, way back when the NHS was looking at its systems, particularly patient records, oddly enough, that you mentioned, and the NHS was looking at two systems, wanted to harmonise and have a central databank and all the rest, I remember we put a paper forward to the NHS from Staffware. So our team suggesting that this wasn't the way forward and what they needed was Workflow processes. And it's very simple and each patient had a suitcase with its data in and you moved the suitcase wherever you need and you have multiple servers and multiple whatever and you don't need to upgrade the entire system, you could just do it little bit, by little bit, by little bit, by little bit and you'll have the necessary APIs to interlink if you need them and there's always ways of accessing in and out from that suitcase. And as you know, with the Workflow processes we designed that there's constant revalidation, there's audit trails, whatever, so you have, it's very simple. And the technology was there twenty years ago, absolutely there to do it.

But they walked away from it.

But we're not IBM.

Because you're not IBM.

Or EDS in those days, or I think that was the primary contractor in the early days. And of course all the major consultants wouldn't deal with us because they wanted to write it themselves and they didn't want to lose all the fees, because they'd lose a fortune if they used us. And so, they were just badly advised. So they didn't

understand themselves and they were badly advised by vested interests whose interests were not that of the actual solution but of their own business.

[1:13:25]

What's the biggest mistakes you've made in your career?

Oh gosh. I think one of them actually was, I would like to say, I'd say certainly when floating Marlborough Stirling, I should have leant on the merchant bank much more to do their due diligence, you know, coming in as non-exec. I did actually ask them the questions but I didn't follow up to make sure they'd given the answers, and that was sloppy.

He didn't quite tell the truth?

Me?

No, he didn't.

No. Well, their research would reveal a lot more information which might have changed things.

Okay.

And...

Are you a little too trusting?

Yes.

Generally?

Yes, yes. But I prefer it that way. Other mistakes. I don't know, it's not that there aren't lots of mistakes, there are loads of mistakes, but there is a tendency to try and, you know, they call it the childbirth syndrome, for a lot of women the process of

childbirth is very painful and disagreeable but their brain cuts it out very quickly, and I think the mistakes I make follow that syndrome. They're kind of deleted from the memory bank and pretend they never happened. I'm sure there's loads there, but I can't...

Do you learn from your mistakes?

I hope so.

[1:15:07]

There is a general concern, by some people, not least being Sir Tim Berners-Lee, that all of this internet-y stuff is becoming a digital dystopia.

Yes.

Do you have those types of fears about the dystopian aspects of social media, for example...

Totally.

... and also the impact of AI. Let's start with social media.

Well, social media, I remain completely astounded by people's naivety and I tell everybody I can meet that the first thing you've got to understand with social media is, everything on social media is in the public domain. There is no private social media of any kind, it's all in the public domain. And people don't understand that. It's a simple principle. It's not a complicated thing I'm saying. They don't understand it. Which is why I don't have a Facebook account and all kinds of accounts, Instagram account or anything, because I don't wish to have that much in the public domain. And I find the naivety of the world just extraordinary. And also, every time you use Google or anything, you know, you've got to assume that's in the public domain. You have to assume it, because you have no evidence to prove otherwise. And actually it is in the public domain. And a wonderful thing called the Data Protection Act that came into force in Britain doesn't apply to almost anything.

I mean Google just drives a cart and horses through it, it collects your data without your permission. It's extraordinary. Anyway.

[1:16:50]

So that concerns you. What about the impact of AI?

AI I think is a bit, to my mind, is only an extension from twenty years ago. I suppose it's a bit like, in my view, a lot in information technology that is repackaged as a new thing which is actually nothing new at all. And the most recent one that had me sort of rolling on the floor laughing, wiggling my legs in the air was people coming, rushing up to me and saying, ah, we've got to move over to the new cloud computing and I've got a Dropbox I'm going to keep all my stuff in. And I said, and where do you keep your emails for the last twenty years. Oh, right. Oh, really? And the naivety of people, and these are people in the industry, and that worries me because they don't helicopter above and look how silly they are. AI is just an extension of, I mean Workflow processing is automating a process, is that AI? Well, it is, isn't it? The machine is doing the processes for you. What's AI? It's doing the processes for you. And is it originating thought? Yes, but that's only a, what if this, this, which is what Workflow processing does. If it's green go that way, if it's blue go that way. It's the same thing. What is much more interesting – because AI is nothing new and... - what is interesting though is the processing power behind AI and obviously particularly quantum computing and when they start to really get that to work, which they're nearly there...

Will they?

I think they will, yes.

When?

I don't know. I'm not an engineer in that field, but I understand what they're trying to do and I think that will make a, if the processing power increases so you can do things so much faster, then the opportunity for processes changes enormously, and I think

that's... So it's the processing power behind processes, it's not the concept of AI itself.

If you had a million pounds, and apart from putting it into the Fullagar Charitable Trust or the NSPCC or the Misbourne School Academy or the Worshipful Company of Information Technologists, all of which you support in various ways, and you had to invest it in the UK IT industry, where would you put it?

In charitable terms or just in...

No, just in terms of an investment expecting a return.

Oh, if it's a commercial investment, I still think we have a long way to go with virtual reality, VR, and I still think quantum computing. I think probably those two.

[1:19:58]

Paul, as you look back on your career, is there a single theme you think that, not qualifies, but illuminates your approach to IT?

Yes, well I think it's largely because I started life as an IT user, particularly in finance and international shipping, that I've always viewed all software in particular which I've been in, through the eyes of the user and what it can do to make the user's life better and how to provide- it was never software that I sold, it was solutions that I sold, and it's about the customer, seeing through the customer's eyes.

So the IT should be a service rather than dominate the user?

Absolutely, yes.

Thank you very much for your contribution to the Archives of Information Technology, Paul Fullagar.

Thank you.

[1:20:52 recording ends]