



Edwina Dunn OBE

Interviewed by

Richard Sharpe

17th December 2019

At the

BCS London Office,

25 Cophall Ave, London EC2R 7BP

Kindly provided by BCS – The Chartered Institute for IT

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 Tuesday the 17th of December 2019, and we are in the City of London, in the headquarters of the British Computer Society, and in, appropriately, and you will see why appropriately in a moment, a room called the Lovelace Room. I'm Richard Sharpe, and I have been covering and researching the IT industry since the late Seventies.

[00:30]

Our contributor today certainly does, tells us an interesting story about her career, and also will inspire many people as well. She is Edwina Dunn, OBE. Edwina, your father I understand was an electrical engineer.

He was, yes. He, he trained as an electrical engineer, went out to Brazil with his new wife, Jean, and, they stayed there for seven years. And had, actually, the three children, I was the middle child.

And you were born in Brazil?

Well, do you know, really sadly, and it was a bone of contention over quite a long period of time, I was the only one born on leave, in Buxton, in Derbyshire, which is beautiful, but I wanted to be born in Rio de Janeiro.

And, your father was helping set up electrical generating plants?

He was, yes, he was building power stations.

What did your mother do?

My mother was a housewife for as long as I recall, and, you know, she had been very ill as a young girl, and had rheumatic fever and St Vitus' dance, survived, much to her doctor's surprise, and... And actually, you know, lost some of her education, but actually, took to reading like a duck to water.

[01:56]

What do you think you got from your parents, apart from your life?

Definitely a work ethic. A very very strong work ethic. They both worked very hard. And, I think were very committed to family life, and the education of children. Those things have really stayed with me.

Your father had been to university?

No. He studied everything at night school. He actually had a very tough start. He was born in very poor Stockport, Cheshire, and, literally, taught himself out of what were then the slums. And, he was a Sea Cadet, and I think that gave him a very good start. So he did amazingly well. We always remember him going upstairs to swot, and we mistook that for sweating, because we didn't really understand the difference. We didn't really know what he was doing. But the door was shut, and he was locked in there for hours at a time.

He was a fighter pilot, was he?

He was. He, he had the honour actually of being a Spitfire pilot. Although they were adapted Spitfires, they were Seafires. And he actually learnt to land and take off from aircraft carriers, which was even more scary.

I should think so, that thing bucking up and down in the sea.

Yeah. So he was Fleet Air Arm. And, I remember him telling me that he flew solo after just ten hours of training. And he went off to Canada, just towards the end of the war, and flew there, and fortunately managed to escape the fighting.

[03:43]

They then returned, the whole family returned to the UK, and, you went into primary and secondary education. Did you enjoy school?

[hesitates] I enjoyed my friends at school. I remember my headmistress saying to me that I didn't take school seriously. And I didn't really understand what that meant at the time. I think, I hadn't really awoken to the importance of, qualifications, which is

really strange when you consider what my father did. But it, I never loved it, if I'm really honest. I, I struggled with it, and I was, I think, quite lazy. I, I passed my, what were then O Levels very very easily, I didn't study at all. I remember going to a concert the night before my French O Level. Shame on me.

But you passed it?

But I passed. And I did all right. I mean I remember being very disappointed with my A levels. And my friends all went off to these redbrick universities, and I kind of slightly swallowed hard at that stage, and thought, oh you've done it now Edwina.

[04:55]

What subjects did you do?

I did French, English and geography. Not the sciences, which I've loved ever since actually.

Geography is a very interesting subject in that it is a, the subject of subjects quite often, isn't it.

I love geography. And have since become part of the Geospatial Commission, which is a government body looking at the importance of geography in the future of our, of our world, our digital world. So I'm excited about that.

And, you were educated in south-west London, Surbiton.

Yes.

Surbiton High School. Was that a mixed school?

No, it was all girls. It was a grammar school. It was part church, part grammar. I wouldn't have gone if I hadn't passed the Eleven Plus, so, it was, it was one of those ones where, you know, my parents were really clear, there was no money for private education, so, we had to, had to get through.

What was the environment like then, being in an all-girls school?

I would say, we were very very lucky. We had a headmistress who believed actually in the sciences, Miss Kobrak. She was quite inspiring in her own right, because, her parents helped Jews escape during the war. She was Polish. And, she told amazing stories. She was a fantastic lady, and absolutely believed in girls and girls stretching themselves, and I think, that did make an impression.

The Miss Jean Brodie of Surbiton.

Yes, I think so.

And why not, indeed.

Indeed.

That's good, because isn't it interesting how one remembers the name of, of good teachers, even, even after these years.

Absolutely.

Not that you're old, I didn't mean to say that, but you know what I mean.

[laughs] No, but it is a very long time ago. But she was, she was way ahead of her time, and very very important I think to a huge cohort of girls.

And this was the mid-Seventies.

Yes.

[07:06]

Then you went to university. Were you the first member of your family to go?

No, my brother went... No, he went to Exeter, and then I went. And my sister didn't go, and I think slightly regretted that, but I mean, she had lots of other talents, so...

And you went to Bournemouth.

I did. I did, I went to... As I said, I, I had hoped for a slightly more what I would call academic set of subjects, and, because I behaved badly during my A Levels, I adapted. I absolutely loved Bournemouth. I had the best fun ever. 60 nightclubs in Bournemouth, and I loved all the socialising, all the fun, met some fantastic people. And, and you know, managed to, to get a reasonable degree at the end of it. [laughs]

And then you looked around for a job, or did this employer who you joined find you?

No, my, my parents pulled me away from Bournemouth. I was having so much fun, they said, 'You've got to come back and work. You can't waste the rest of your years working in a café,' which I was doing down there to make some money. And they pulled me back, and they sent me to Brooklands to become, to do a personal, a postgraduate personal assistant diploma, which I kept secret for a very long time, because I never wanted anybody to know that I could touch-type and do all of those things. But they insisted I needed a backup plan just in case. And that was very much of the time. And then, I went job hunting. And, you know, these were the glory days. I mean this was when you went for a job as a graduate, and you literally were offered almost every one, which, you know, was, was really surprising, and I, I sometimes fear for, for young people today who don't have that luxury. So, I went for five jobs, I got five jobs, and it was choosing which one at that moment. So, you know, really, really exciting. And I didn't think at the time I really understood the import of it.

[09:32]

You in fact joined a software consultancy, an American software consultancy, called CACI. Caci [pronounced cacky], is that how you would pronounce it?

Yes. It actually stood for California Analysis Centers, Incorporated, which, as you can gather, is quite a mouthful. But it was, it was about two and a half thousand people. The headquarters actually were moved to Washington DC. London was a

tiny British outpost. But it was phenomenally entrepreneurial, and fantastic meritocracy. They had a leader called Herb Karr. I mean you couldn't get a more American name. But he taught entrepreneurial skills and spirit like I've never seen before or since. And, you know, everything I learnt, I really learnt there. And I am so grateful that I joined that company. It was so exciting.

[10:31]

When did you see your first computer?

Oh, the first day I arrived. We had one of the only big computers for private business outside of defence. And, it was brought in to the office in High Holborn, and they closed High Holborn on a Sunday to crane it into the building, it was so enormous. And it needed air-conditioning, and, special fire systems. It was, it was... It was amazing. And, and we were the envy of many many other businesses.

This was an interactive machine, was it, had terminals then, did it?

Oh yes. Yes, it was, it was... I think it was a VAX 11/78 from memory.

From Digital Equipment Corporation.

Yes, DEC. DEC terminals, and... And that's where I learnt my trade.

You were programming, were you?

I wasn't, no. I became... I was lucky enough to meet two people, Tony Bickford and Richard Webber, and one was a computer programmer and ran the business, and Richard Webber was a social scientist. And with Clive Humby, who I met there, they forged a really powerful team, which created a combination of classifying people by, with computer programs that aggregated census data. So it was a really fantastic and very pioneering application of early technology.

It sounds a bit like what we would call now big data.

It was, it was big data. And, it was spatial data, so, it goes back to geography. So effectively the census was collected on, you know, 130 magnetic tapes. It had never been aggregated. And the software they wrote, not only aggregated the 130 separate local authorities and parliamentary constituencies, but actually then worked out catchment areas and drivetime zones. And then overlaid with that, became Acorn, which was a classification of residential neighbourhoods. And that classification really, made us able to look at people and say, you are where you live. So it was a concept of people, birds of a feather flock together. So it was classifying people by their neighbourhood. And, and you know, it became a really powerful way of understanding that, you know, if you are a bank, or you are a retailer, that your local population, your local catchment area, really determines the success or failure of that branch, or that retailer.

Who were your customers?

Oh. It was people like National & Provincial, and, Abbey National, and, and people like, oh gosh, I can't even remember back then. Some of the retailers. Marks & Spencer's were absolutely out in front at that stage. But we, it was really the banks at that time, the building societies and the banks, who really adopted and loved this kind of technique. And it allowed them to determine which branches to open, close, how to locate new technology, which was, believe it or not, ATMs. And so, it was, you know, it was really at the centre of a lot of strategies.

[14:30]

You joined in 1980, which is, a couple of, three or four seminal years really of the IT sector, and 1979 the computerised System X exchange was introduced by British Telecom. VisiCalc was developed. Prestel was launched. In 1980, got the relational database. In 1981 we got something called the PC. [ED laughs] Rather, rather clunky but rather important.

Yeah.

And the BBC Micro. And in 1982 an IT awareness campaign in the UK. So these were really transformational years I would, I would suggest, and you were in at the ground floor in that transformation. Did you see it happening around you?

Well, interestingly, joining the same company, CACI, at one stage, slightly different arm, was a very smart man called Geoff Squire, and he had acquired the rights to Oracle, the, what became the global relational database management system. And he brought them to CACI. And he came to us and said, 'Can I load Oracle onto your computer, because I don't have one?' And we would let him load Oracle. And it's always been quite power-hungry. And it would literally turn all the lights off back in those early days. So, we were always rather cross with him for doing this. But he, he did subsequently leave, and CACI did actually sell back the rights. And Geoff Squire did actually go on to become the CEO of Europe for Oracle, and became very successful. And then, he comes back into our story later on when we were looking for an angel investor. So he was a very important character in our, in our business career.

[16:37]

So you spent nearly, well nine years there, did you?

Yes.

And that's where you met your partner and husband, is that right?

I did. I did. On the first day of day of work I...

No, not the first day.

On the first day of work I saw him, and I thought, he's very nice. And then found out that he had a girlfriend, so, I was very disappointed and focused on my job, which was the right thing to do. But a year later, after he had broken up with said girlfriend, we went out, and, and got married soon after.

But you remained in the same company?

Yes. There was a sort of, slightly artificial reporting system to make it viable. And, and you know, I was... You know, I, I was definitely... It was definitely made clear to me that this was slightly uncomfortable, and not really suitable for a very large company. And they didn't really like us having a relationship, and, you know, I was warned about having an affair in the office, and, I was slightly outraged and said, 'We're not having an affair, we're in love.' [laughs] Those were the days, eh.

Indeed.

Not that we were in, [laughing] not in love, but the fact that people actually said those things to you back then.

Yes. Well now it's often frowned upon isn't it.

Well definitely.

People are losing their jobs as we know.

I know. I know. And, you know, how times have changed.

[18:12]

We'll come back to that, about how, how they have changed and how, maybe they haven't changed enough. Were you ever in a management role there?

Yes, yes I became the youngest vice-president actually, and female, I mean, youngest female vice-president. So, you know, I really thrived in that, I absolutely loved it. I loved everything about it. I learnt so much, I grew, I grew a team, I was passionate about the work I did. It was truly inspiring and exciting. And it was where I discovered my love for work.

[18:53]

What would you say is the Edwina Dunn method of management?

Well, I think not at that time, but subsequently when we started our own business, I developed something called the Power of Two. And the Power of Two is really my whole philosophy of, not trying to work on the things that you are naturally not very good at. Because I think you waste a lot of energy and time trying to do things that are not easy, not natural, you're just, you know, really going to struggle to do. And my philosophy has always been, work with someone who is your polar opposite in their skills and abilities, trust them. You don't have to be best friends, you certainly don't have to marry them. But, they are your natural opposite. And actually, there's quite often a little bit of friction with someone who thinks differently, says things differently, you know, does things completely differently. And it's healthy. And I think that for me enabled me to grow a global business in the end I could not have done in any other way.

[20:15]

So, if we draw a line down a sheet of paper and we have the Dunn side.

Yes.

Yes? And the Humby side, [ED laughs], as in your, your husband. His name is, first name is...

Clive.

Clive.

Clive Humby.

Clive. So, you've got Edwina and Clive. On the Dunn side, what are the strengths there?

On the Dunn side. Oh, you know, commercial strengths, building relationships, building teams. Sharing a single vision. Being very goal-orientated.

And on the Humby side?

Oh, you know, all of the genius, science, maths, modelling, R&D innovation. All of those, you know, great technical skills that meant that whatever we did was, you know, really pushing the boundaries of the possible. And we literally used technology all the time to push the edges of as much... You know, you mentioned big data. We would always try and look at the biggest data we possibly could at that time.

So you were always, you know, really going for really big computers and lots of storage and lots of power.

Yes. Absolutely. And, you know, that, that, that moment where you have to think about, how do you, how do you get the answer that you want with a computer that is big enough to, to process and analyse, without spending more than the job is worth, the value, the benefit is worth. That is the sort of combination of both our skills.

And when we look at the Edwina side and the Clive side, do we see a female side and a male side? Do you think there's something inherent in what your particular skills are, being a woman, and him being a man?

I... I don't know whether it's our skillsets or it's our gender, but I always work as a team, I'm always asking for help, I'm always listening to what people tell me.

Whereas Clive is much more, 'I have an idea, I'm really excited. I'm going to go into a corner and I'm going to play with the data, and use tools and systems until I find something magical.' So he is quite, in many ways he's quite isolated in the way that he works. His excitement comes when he has broken through in some way, and then he shares that, and is very inspirational in that way. But his way of getting there is, is quite alone.

That is quite male that, isn't it?

Well... [coughs]

I'm not trying to stereotype people, but you are aware, and we'll come on to this later on, of the importance of, of gender in job roles and in attitudes.

I, I... I agree. I mean I don't think men often enough ask for help. I don't think they admit weakness. I, I think that is not a sign of strength at all.

No. No. 'We're lost. Let's look at a map.' 'Oh no,' she says, 'why don't we ask that person?'

Exactly.

'Oh, no no.'

Exactly. And so... But I think the focus of, of men sometimes, I envy. You know, that ability to shut everything out, and just really focus on the big prize. And I constantly have to remind myself that, doing less but doing the important things is more important than, you know, coming in and ticking off lots of things that you manage to accomplish that day.

Are you driven by lists?

I'm driven by, achievements and goals. I'm very... I'm a, very much a, someone who sets their heart on a particular goal or ambition. It can be nebulous in its sort of boundaries, but I am excited about making an impact. I think that for me is my measure of success. Did it make a difference, did it help people, did it do something good? Was it new? Was it important? That's what I love.

[25:05]

Then after nine years you left together, did you?

We did.

And, you formed dunnhumby. And you went into the, you applied science and technology to customer data. This was the subset of what CACI was doing, was it?

Yes. Yes. Well, so, so CACI was really analysing census data, which was third party data. And the idea that we had was that customer data, which at the time people were throwing away, because it was too expensive and too big to hold, we thought, wow, if you analyse customer data, you might find out more that is current than you can with ten-year-old censuses data, which essentially is, so it was ten years old, up to anyway. And we tried to persuade CACI to move into that world, but we were so profitable, we were growing fast, we were making very big profits. You know, in a world where the margins in government contracting were very very small, we were like, 60 per cent profit rates, which was phenomenal. And so they were very reluctant to invest. And, we tried to kind of persuade them. And I guess one of the toughest moments in my career was when Clive said, 'I just can't stick it. I'm going to have to leave.' Because at this time he was running the UK business. And they tried to persuade him to stay, but he, he had set his heart on, on this new path.

Was he reporting to you?

No no. He was the boss.

Oh right.

He was the CEO. I was the, I guess the vice-president reporting in, to him. Actually, I was reporting in to an American, because I couldn't report to him.

No.

But it was, to all intents and purposes, that's how it worked. So he decided to leave. They tried to persuade him. No. Because they wouldn't change, and make the investment. So he left. They accepted his resignation. And the part that hurt me the most was, they literally fired me ten minutes later.

They fired you?

Yes. And said, 'Because you're his wife, you will end up competing, and therefore your role here is unsustainable.' And it was still just about legal back then. So...

But you were compensated I hope.

[hesitates] To the minimum amount. And, it was very... It was very hurtful. And, I, I learnt from that point that the sense of unfairness, you can turn to positive motivation. Which is, you know, my immediate thought was, well I will show you what you've missed. And that fuelled my career for quite a long time afterwards

[28:11]

And so, on the road comes the Clive and Edwina show, yes?

[laughs] Yes.

Who were your first clients when you broke away?

I want to just paint you a picture. We were broke. We had a huge mortgage. CACI actually pursued us in the courts subsequently. And so we were burning money. We, we won the case, but, we still had to pay fees. And so we were broke. We had a big mortgage, no salaries. So we very quickly wrote a business plan, and looked for an angel investor. Even though, you know, I... We, we tightened the belt and spent very little. And that's where we went back to this man I mentioned, Geoff Squire. Because he had made quite a bit by then. And, we said to him, you know, 'Would you believe in us, will you back us?' And he said, 'Well, I know you guys, so I will.' And he very very generously shook hands on a deal there and then, and invested quarter of a million pounds, back in 1990, in this fledgling idea. And, and he showed phenomenal faith, and I'm very delighted to say that he more than made his money back subsequently, and I could not be happier that he did.

[29:38]

So this is 1989/1990. By now what... ICL was really struggling. It was, in 1990 Fujitsu took over 80 per cent of it. We've got an optical cable across the Atlantic that's rather good. MS-DOS 4.0 was launched, that's not so good. [laughs] Long-distance lines are fully digitised by BT, the first time in the world. ARM is spun out of Acorn.

Mm.

And, SAP R/3 is produced as a client server product. So, there's a vogue coming along for business process engineering. But you are still therefore trying to focus on customer data.

Mm.

And talking to potential customers saying, your particular customer, for instance in retail, you've got n thousands of customers who are coming through, and you've got lots of point-of-sale information now, because you've got barcodes on everything, and you've got people, lots of people paying with their credit cards and debit cards, so you know who they actually are.

Mm.

What are you going to do with that information? Is that what you ask them?

Well, I mean, you know, the banks frankly were not interested in any of this. They were sitting very comfortably and had no, no desire to analyse their data or share their data or anything. So, we were very much focused on, you know, businesses like Cable & Wireless, Mercury Communications back then; we were working in automotive, we were working... We actually worked with Lotus 123, that subsequently was acquired by IBM. And so we were really using customer data to just tell them more about who their customers were, how often they bought, how much they spent. And this was all a completely new science. So no one had really understood who their customer base was, until that time. And the language we now take as completely normal, just had not been invented at that stage. So, you know, the idea of customer profiles, and, targeting, and all of that, was just, not yet invented.

So the term customer relationship management was, way down the road.

Oh yes, that was, that was in the future. And actually, it was the technology companies I think who capitalised on the value of all of this probably better than anybody else. You know, the, the SAPs, the, the Teradatas, the, the call centres, these are the people who invented the term CRM. Before then, it was rather grubby, rather grungy, database marketing or direct marketing. And, and you know, I, you know, kudos to the technology companies for making it sexy. Because before then, it was junk, you know, it was considered junk mail, and, and not desirable.

[32:59]

Who were you looking to recruit into your new, Clive and Edwina show?

[laughs] We certainly focused originally on technologists. So we brought in a couple of people, Helen Crooks, Paul Springfield, who came from the school of, of deep technology, Oracle and, and people like that. And, they helped us design our platform and our database. So they were the most important architects of the first customer database, which was really the vision and the platform we used from there on in to bring people's different transaction data into the business.

So you didn't do bespoke work necessarily. You had a platform...

Yes.

...which you then tailored to a particular client and their need.

And that was the secret. You know, we had actually designed it to be efficient, right from the beginning. We had learnt, you don't just build it on the fly. You build something that is generic, and you tailor a small part. We... You know, little did we think we were going to end up with data as big as we did, but, it was always pushing the boundaries. But that original model helped us, I think, be ready in a speed and with an agility that we would not have achieved without having that foresight that, you know, you have to have a plan before you start to tackle something that you then intend to repeat.

And it was always based on Oracle?

It started off by being Oracle, which has advantages and disadvantages. We used... So SAS became a big platform for us. But we built a lot of our own tools, and we integrated a lot of different systems. So, we coded, and we, yeah, and we integrated. And that really gave us the differentiation. Because we understood all the parts, and the flow of what companies were trying to do. So it was actually the end-to-end that really guided us and gave us that USP.

[35:35]

What were your programming tools?

I... Do you know, I honestly can't really remember. I mean...

It's probably irrelevant.

I mean I, all I remember was, we programmed in, was it C, C++?

Oh, yes.

I, I think... I remember Clive's first programming language was FORTRAN IV, which was incredibly old school, but actually quite powerful back in those sort of mathematical days. But yeah, it was mainly C, C++, I seem to remember.

[36:14]

Many such applications – sorry, platforms I should say, which turn into applications, do not scale up. Why were you able to overcome that problem of scaling up, which so many other people failed at?

[pause] Oh, well I forgot something just now. One of the most exciting technologies we used was a little-known Canadian one called SAND Technology. And SAND Technology...

s-a-n-d?

s-a-n-d.

SAND.

And, it, it was a fantastic... It was a... I believe it was a massively parallel processing type technology. And it gave us tremendous scalability and speed. And so that was one of our secret weapons I recall. And in fact, we have recently worked with someone who was one of their chief engineers. Absolutely brilliant guy. Richard Grondin. And, yeah, they were a, they were one of our, they were one of our specials, I remember that, it was very very important. I'm so sorry, you asked me a different question.

No no, that's fine. So, you really, you were able to scale up because you had this parallel processing ability.

Yes.

And able to... Did you slice up a big system, is that what it did?

Yes. Yes. So, the key...

What was your hardware platform?

Oh gosh. What was our hardware platform? [pause] I think we stayed... I think we moved to HP. And so we were very much HP at the time that Tesco found us.

And therefore Unix?

[hesitates] Yes, Unix.

OK.

Yes.

OK.

You can tell that Clive was the technology, technologist amongst us. Yes, it was, it was Unix. And... And, yes, we did slice up the data. What we did, which was controversial in the pure technology world, is, we understood that as, I'm taking "we" loosely, as statisticians, that you only need some of the data some of the time. And the way we conquered the very biggest data was using this approach. So, we didn't have to put it all in at once. Because the cost of doing that was just, out of all proportion to the value it would create. And so that idea of summaries, and aggregating data, so that reporting and analysis could be swift, and, and not right in the granularity, that is what gave us the edge.

That's the second time you've said that about it. Because you said that about CACI, that the process is that, you must focus on the particular data you need, rather than all of the data.

Yes.

And then you've got to judge it against what value you can get out of it.

You are absolutely right. And what worries me a little about the, the climate today, is that people seem to have the opinion that all data is valuable, all data can be monetised. And actually, the truth is that, a lot of data is not interesting, not valuable. And actually, you have to know what you are trying to create. You have to know what, what processing data, or finding out something, is going to deliver you, and to make sure that you are actually going to change something once you know that. Because knowing it is interesting, but it's not important until you actually do something different because of it.

You may know, for example, the size of the average basket of the person walking out of your supermarket, but unless you do something with that information, why do the calculation? Is that...

Absolutely. I mean it's sort of, you know, a lot of people have talked about, cameras and tracking around aisles, and, how long is someone there, and what do they look at? And that is important, but it's also expensive, lengthy, intrusive. You know, all you really need is the, is the bill at the end of it where it says, well someone went on a journey, and that's what they bought. And actually, that is the interesting bit, what they chose, what items, how much, and when they came back. And so, sometimes you can make over-complex something that can be derived much more simply. That... Yeah, it's... And you can do that across so many things, it's...

This is why magazines are in front of supermarkets isn't it, because, if you buy a magazine, from what I've heard, the actual value of your basket as you go out is much higher than just the magazine itself. Somehow, it triggers other purchases.

[laughs] Yes. Well, I mean...

You would be able to find that.

We all remember when chocolate, and snacks, were removed from the checkout, because, children's pester-power, you know, really diverted poor parents, busy mums, with, 'Can I have some, can I have some?' And, and they actually asked for things to be removed. Because we are all distracted with the goodies at the till.

[41:50]

Your big breakthrough, I believe, in the mid-Nineties, is, working with Tesco and establishing and launching for them the Clubcard. Now did Tesco find you, or did you find Tesco?

They found us, interestingly. We were speaking at a conference about this platform that we had created, and the fact that we were well suited to big data. And they had started this trial, with an early form of Clubcard. It was the idea of thanking customers. And they were in about, it was either nine or thirteen stores. But the volumes of data were, had, were, you know, unknown till that point. It was vast, because it was every item in every basket in, nine or thirteen stores. And they couldn't, they couldn't analyse, there was nobody in the business who had the tools to

analyse that size of data. So... So we were approached, and asked would we look at it, and we were told, 'Don't get excited, because we never use external consultancies.' We were very excited by the way. And we analysed it. And, and it was about three months. And, it was challenging but super, super interesting. And we presented back the findings to this young middle manager, a chap called Grant Harrison, a New Zealander. And, I really admire him, because, you know, as we presented, he basically said, 'Look, I have 100 questions. I am asking you these 100 questions, as you tell me more and more. I know my board, and they are going to want to ask lots of questions, so you're going to have to come to the board meeting and present, because, I'm not going to be able to answer these questions.' So to his credit, he gave us a free pass through to the board, which was our big break really, getting in front of the decision-makers.

What was the essence of your report?

So the essence of the report was to say that, by thanking customers, by recognising what they spent in store, and giving them a one per cent reward on all of their... So one penny in every pound, by giving them that, they were so, thankful, so appreciative, that it, it made them feel even closer to Tesco, and, actually, came back. And so they spent more. The bottom line was, people who had been given a small reward, spent more subsequently.

And you could prove that to them?

We proved it unequivocally. And what was even better was, the leadership heard it clearly. And those wonderful words from the magnificent Ian MacLaurin, Lord MacLaurin now, saying, 'I am amazed. You know more about my customers in three months than I know after 30 years.'

I think you knew you had got the business then, didn't you?

We were, over the moon. But you know, so much was conveyed in those few words. The modesty of someone who was a lifelong retailer, who could have said, 'My instincts would have known that. I knew better. I know better.' So many retailers,

even today, will take that stance. He said, 'Yes, I know a lot, but you know more.' And he was so respectful of the data. And the second thing he was respectful of was the fact that Tesco, I think, is one of the greatest companies I have ever seen for executing a strategy. They are, in the nicest possible way, a machine. They are brilliant at executing. And they basically said, 'We must be the supermarket. We must execute. You must do the insight and strategy for us, and we mustn't mix the two up.' And they gave us an even bigger remit, which is, you get on with what you are good at, and we'll get on with what we did.' And that is what made it so utterly brilliant.

[46:36]

And it was about this time, 1995, 25 years ago, that Tesco pulled away from Sainsbury's, wasn't it, and started to bury Sainsbury's.

Yeah. I mean I think within three years they had doubled their market share, and, and, you know, became a very very clear number one, you know. They, they leapfrogged. I mean the momentum, the transformation, was completely unheard of before or since.

And this was, you claim, and I'm sure you're right, the first mass customisation loyalty programme in the world.

Yes. Yes. And, and we know that, because, years later Kroger, who's the biggest supermarket in America, came knocking on our door and said, 'We have searched across America, we've searched the world, and you are the only people we believe who can do this for us in America, and we want you to come here and do a Tesco for us.'

And you did?

And we did.

Did Tesco say to you, 'And the by way, not Waitrose, not Sainsbury's, nobody but us in the UK'?

They did in the UK, but again, to their credit, and part of the reason we stayed working as dunnhumby, with and for Tesco, for so long, was that they gave us permission to work in other markets with their competitors. As long as we gave them first option in other markets. And we were happy to do that. So, they weren't in America at that time, and so we were able to have a very clear run. And in fact our work in America was more and bigger than it was here with Tesco in the UK.

It was reproducible, was it?

It was. And I think, that surprised people even more, that actually, it wasn't a one-off; it wasn't just the fact that Tesco were brilliant as a grocer, and they are, it wasn't just that. It was the science. And we... You know, Kroger were being absolutely killed by Walmart at the time, and what we were able to do was change that over a period of ten years. And, they had, I think it was 45 quarters of straight growth from the time we started doing this with them. So the CEO, was first Dave Dillon, then handed over to Rodney McMullen, and Rodney McMullen would announce to the, to the institutions, 45 quarters of straight growth, because of customer focus, through the data.

What about continental Europe?

Yes, that came too. I think the trouble is, once you've done America, the scale of it, the size of it, is so huge that as you go to different European markets you go, ooh, that's quite small. And, and it slightly spoiled us, but, we did meet and work with phenomenal business leaders. Jean-Charles Naouri, who owns Casino Group, and he has an empire that stretches from multiple supermarket brands across France to, he owned Grupo Pão, the super in Brazil, other businesses in Colombia, Thailand, et cetera. And so, we worked with him and his leadership team. And, yeah, that was, that was quite an interesting and important journey as well.

[50:39]

Sixteen years on, after 1995, you decide to sell out, to Tesco.

Well we had always planned to sell. I mean we built it because we had a family, and, you know, we wanted to send our children to good schools, and, you know, we didn't pay ourselves big salaries. So we always intended to sell, that was part of the fun of building a business. We didn't build it to keep it. We built it for it to fly, and for someone to love it so much that they bought it. And, and that's what Tesco did, they loved it so much that they did buy it. And so, we were very... You know, after sixteen... I think it was altogether 20 years. I think we sold in 2011.

Yes.

And, yeah, we were, we were quite tired by then. You know, we, we... I was on a plane every other week, and we were in 25 countries, and, yeah, it was quite...

And employing 1,500 people.

Absolutely. And, and that in itself was quite an eye-opener. I mean, it was huge fun, and we had a phenomenally talented group of people. Fifty per cent were female by the way, which I'm really proud of in a technology company. Lots of them were geographers, but some of them were mathematicians, and computer science, and other skills. So yeah, I mean a very young, vibrant, people business. And you know, since then even, so many of them have gone on to, you know, run businesses, run markets, countries, and, you know, they, they kind of grew up breathing data and technology. And I think it gave them such a, such a strength and such a, an ability at an important time.

Did you find it hard to recruit adequate talent?

We did at certain stages. And in fact, we went to India at that point in time, because as we were scaling globally, we just couldn't hire enough graduates. And so, yeah, we went to India, and we actually recruited people with, with Double Firsts, double degrees. And, we, we trained them to become data managers, and instead of using them for back office, back room, we actually used them for some of the technical roles, and they were really great. So we built a centre of, I think nearly 200 people, in, near Delhi, Gurgaon. And that step-changed us.

[53:36]

You remained a partnership, did you?

Oh. We... So our big model, the big business model that I think was really important to the success of dunnhumby, was creating joint ventures with the retailers. So, we always only, strange language, we owned half of the pie, with every retailer. And, you know, my philosophy was that half of something bigger that the retailer was excited about was better than the whole that they slightly resented. So we were never a consultancy; we were always a joint venture partnership. And that bonded us to them. And it meant we didn't fail in any market, because they wouldn't let us fail. They helped us with everything. And in fact they kept giving us extra things to do. Because it was like, 'Well, you know, you're an extension of our business, and we add you up in our P&L, so we're really happy that you do well.' And of course, because they were 70, 80 billion in turnover, and we were, I don't know, what were we back then, you know, maybe, three-quarters of a billion, up to a billion, you know, we were tiny by comparison. So, so actually there was never any resentment.

Still big for a data analytics company though, a billion.

It, it was... It scaled, and, it was massively successful. The success came and the revenues came, not from the retailers, but actually from the CPGs, the FMCGs. So it was the consumer product goods companies who basically then saw this as a way of accessing customer data that they had never ever had before. So we re-purposed the data, we made it available in a new tool technology, which we called The Shop, which was very much the Ronseal school of branding, and they were able to access all of this rich, beautiful Clubcard customer data, anonymised, for their brand. So they could see who preferred coke, who preferred Pepsi, who liked diet coke, who liked, you know, full-fat Pepsi, cherry flavour, vanilla, whatever. And, it changed their fortunes too. So the CPGs loved it.

[56:06]

And these were people like Procter & Gamble and Unilever and, those type of people?

Yes. Yes.

Did that, to any extent at all, rebalance the power relationships between supermarkets and the FMC suppliers? Because, you know, the Procters & Gambles of this world are always at loggerheads with the supermarkets.

That's very insightful. It did. I mean until then the retailers were very much on the back foot. Because the CPGs, the FMCGs, had such strong marketing skills, and huge research teams and departments. And the retailer would often go blind into negotiations. And so certainly when they, when the FMCGs realised, when Procter & Gamble and Unilever realised that Tesco was looking at more powerful data than them, it made their eyes water. And, and it did change things. And, we worked very hard to create a collaborative approach, and not one where one was right and one was wrong. You know, we were very much the model of, the customer can win, Procter & Gamble can win, Tesco can win. It took a while, they kept reverting to old behaviours. It worked extremely well in America, I have to say. And, and it did change a lot. And, you know, we stopped... We actually stopped a lot of these organisations, General Foods, Kraft, all of these people, from trying solely to switch people from one brand to another, and simply, to reward customers for buying their brand, and actually show them that people will buy more.

It's an interesting date, 2011, because, about this time Tesco got into some, or started some really troublesome marketing processes, demanding money upfront from FMCG companies for example.

Yes. Yup.

Et cetera.

Yeah.

It lost its way, didn't it?

It was... I think to be honest, it was a universal challenge in that industry. I think Tesco was, was exposed at a time where, new leadership came in, and, you know, I, I think, they were wrong-footed, and... And, you know, this had been something that not just happened in this country, but all over the world. Those marketing monies were, very prevalent in a lot of the supermarkets around the world. So I think, certainly what Tesco was doing, which was absolutely not visible to us, but what was happening there was, was clearly not right. But I think the whole industry took great attention of that.

And also we have Aldi and Lidl coming in.

Yes. Yes. Doing extraordinarily well.

Did you work for them?

No. And I think, we were always... We were always the people who did the complex, rather than the simple. I think what Lidl and Aldi do is simple, and they do it extremely well. When you only have 400 brands, it's relatively straightforward. When you have 50,000 brands, it's more complicated. So we were the complex solution. And, my admiration for Aldi and Lidl is huge, and they do it really, really well. Whether they would ever need us, I mean I would love to think that they would, but you know, I think, you know, humans are better able to manage that number of brands than 50,000.

[1:00:12]

So the Clive and Edwina show cashes in in 2011.

Yes.

And, you decide to take some out.

Yes.

Some time out. The Old Rectory Gardens at Doynton book is the product of that.

[laughs] Yes.

This is where you lived, was it, the Old Rectory?

Yes.

Where is Doynton?

It's near Bath.

Near Bath.

Between Bath and Bristol.

Oh, oh very nice indeed. And, what's the, what's the book about? Is it about gardening, is it about the gardens?

It's... Do you know what, I'd love to say it's solely about gardens, and pretend I was a great gardener. But actually, it was our antidote to working all hours, long hours, getting on planes. We would come to this beautiful village, and, and suddenly, you know, change pace, enjoy being out in the fresh air, enjoy spending money, probably unwisely, and certainly with no hope of any good return, other than the joy of the beautiful garden. And so, it was all of the things that we were not at work, which was mindful and efficient, and frugal, and, planned, and all of those things. It was just a joy. And so, the book is, is really more, it's a lot of photographs, it's about the before and the after, but it's really the story of us muddling through, with something that has given us huge pleasure.

So this is an old rectory. Is it built of Bath stone?

Yes.

Oh, that lovely creamy stone.

Yes, the white lime.

How old is the rectory, when was it built?

1760.

Ooh.

Yes.

Lovely.

Yes, it is lovely, it is...

Slate roof?

Yes. Yes indeed. You, you're bang on. Yes.

I can see it, I can see... Well, I was, I went to school in Bath, so I can see it.

Ah, lovely.

[1:02:13]

And at the same time also, you started researching a global collection of women's voices, based around 1,500 women, as they, on how they, how they perceive themselves, and where they've got to. Now, we're going to, therefore, look now at the role of women in this industry.

Mm.

I edited a newspaper nearly 40 years ago called Computing.

Oh, yes, I remember it.

And we then did specials on, special reports on women in IT, and was told by my publisher, 'Why didn't you do another special on printers, because we can display advertising against that?' And I said, 'Well because it's an important subject.' We had... Many of my staff were women, and eventually, they were actually called Sharpy's Harpies, would you believe, by the rest of the industry. And, they were part of a, a whole group which was called GITS, Girls in Technology and Science.

Oh, dear oh dear.

Why hasn't it broken through? There must be something absolutely systematic in this industry for women to be kept in their place. Why? How does it work?

You know, there's a lady called Claire Enders, who is really, really smart, and she is, she is so thoughtful on this subject. This goes back a long, long time. This is not something that we are changing, that, that, you know, is a recent thing. This is something that takes time. And, and I think the truth is that, women, you know, we sort of do some of it now, because we are programmed to say certain things. Like we're programmed to be more modest, more, you know, oh, you know, I, I need to play down what I did. You know, I find women unwilling to be filmed sometimes, unwilling to speak out about their success. And so, it takes time, and I think the more we normalise it, if we can get this sort of, critical mass of success, of stories of role models out there, it might begin to change. But you know, the conversation, you know, we need boys and men to admire girls and women, and until that happens, we're kind of just talking to ourselves.

[1:04:51]

We're in the Lovelace Room; over the road is the Shirley Room, from Steve Shirley, who has contributed to the, to the Archives.

Brilliant.

And I had the pleasure, great pleasure, of interviewing her. Now there's someone to look up to.

Indeed.

Is it that, therefore, women do not necessarily put themselves forward?

[pause] Oh gosh. If I knew the answer... I think there is some element of that. I think, you know, I mean some of the things I've seen is that, you know, when women are asked about promotion, they don't automatically say yes; they think about the family, maybe a partner, a husband, the children, a mother, a dependant, someone like that. I don't know. But they may not give off the best signal when asked in that moment, would you like the job in Dubai, would you like the job in Miami? They might go, 'Ooh, what am I going to do about,' this, that and the other.

Mm.

We've heard so many stories, that, the truth is that, there isn't a single reason, or a single solution. And I think what I've tried to do, and people like Steve Shirley are, you know, phenomenal advocates for women in science and technology and things like that, is, we tried to bring out all the living, wonderful role models that exist in these areas. Because, yes, we're in the Ada Lovelace Room, and she was phenomenal, but schools and everybody are still teaching us to admire and respect women who are long dead. And, and actually, what we have to start celebrating is, is people like Steve Shirley who are alive and vibrant, and, you know, they can still turn to and see and hear. So, that's really what the project became, a way of saying, you know, there are so many. I mean I brought together 60, I think I've probably collected another 100 since, stories and films. Could be 50,000.

*This is the book, your book *The Female Lead: Women Who Shape Our World*.*

Yes.

Published by Penguin Random House and available in all good bookshops.

Absolutely, yes, please, gift to someone with enormous potential who just needs to be reminded that she is able to do anything she sets her heart on.

[1:07:28]

We are in the headquarters of the BCS in the City of London. I think it was formed in 1957. And in a room just down here there is a list of all the past presidents. Two are women.

Really? Hm.

And it's an annual post.

God!

Two. One of them is Dame Steve Shirley, who of course had to change her name from Stephanie to Steve to get her first job as a freelance programmer.

Yes. [laughs] It's amazing isn't it. And, and for it to be as woeful, really, today. I think the truth is, I mean, women's stories are every bit as exciting and, and inspiring, as men's. They just, they're just not often published, put into museums and exhibitions, put into galleries. You know, they're just not as often there. I'm currently reading the autobiography of Clementine Winston. Robert... Not Winston. Not Robert Winston. He's another great fellow who I admire, and work with on one of my government bodies. I mean, Churchill.

Clementine Churchill.

Clementine Churchill.

Her autobiography?

Sorry, her biography.

By Anita Leslie?

I had forgotten who it's by.

No, it's OK.

I've forgotten who it's by. It's great. I never knew how incredibly vital and important she was to this man who has been lauded as our saviour during our darkest hours. I mean, it's a revelation. And, you know, here I am, not that long after all of this has happened, and I was completely oblivious to it. Doesn't this show exactly what the problem is? You know, here I am, sharing the stage with my husband, Clive Humby. She didn't share the stage with Churchill. She was behind the scenes.

It's almost like Stalin painting, I mean people painted out, isn't it.

Mm.

When women play these roles.

Mm.

And a few years later on, you look at the same picture and you see, 'Oh, well what was that shape there? That must have been a woman.' Because she's been painted out.

Do you know, maybe, the Internet, maybe social media will mean that people can't paint things out, so maybe there are some positives after all.

Oh, OK. We'll explore that in a moment I think.

[laughs]

[1:10:08]

After a year or so out, you set up H&D Ventures, a business and data science team exploring the possibilities of telecoms and financial services data. So you are back

into that type of game, big data, but taking it from different places and amalgamating it?

Yes. Clive and I still have a vision that, there are a number of data sources that are really truly exciting and potentially transformative. The obvious ones are sort of, Google and Facebook. Well that's never going to happen. But...

Sorry, how do you mean, it's never going to happen?

Well they're never going to open up data...

Oh right. Right.

...for, for Clive and I to play with.

No. Got it.

Much to our chagrin, but anyway. But the people who do have interesting and important data are, the telcos, certainly the banks, with, particularly credit card data, and, we think social media data as well is incredibly rich and interesting. So those three data sources are as potentially game-changing as the grocer and Tesco was, and that we still have an ambition for that to be the next generation.

[1:11:33]

*Let me use two words, speak two words to you, and see what your reaction is.
Cambridge Analytica.*

[laughs] Yes. Well, you know, good idea, done in completely the wrong way by breaking all the rules. That's all I really need to say. I mean, there's a good way of doing things, and a bad way, and, you know, it's all in the intention. And it's all in the ethics, which, you know, is, is, you know, a fundamental part of the way we all need to move forward. Because, we are no longer constrained by what we can do; we must be constrained by what we should and shouldn't do.

[1:12:17]

You are a board member I believe of an organisation, the Data Ethics and Innovation board, since last year.

Yes.

What are data ethics?

[laughs] Well the CDEI is a, is a government body. It's independent from Government. It advises Government on the, the legislation that...

Sorry, what body is this? The...

It's the CDEI, the Centre for Data Ethics and Innovation.

Oh right. Sorry. OK.

And so, it, it's there to provide expert insight and counsel to Government on the, the, I suppose the, the good and the bad of, of, everything to do with AI, artificial intelligence, the use of data, and, and the way in which that is applied, to targeting, or selection, or, some kind of availability. It's, it's what people are offered, what should they be offered. Is it fair, the way that they are offered? And so all of these things are dimensions that are changing all of the time, incredibly rapidly, being adopted by every industry on the planet. And somehow Government now has to work out what's allowed, what's not allowed, and kind of, what the rulesets are around that. Because, frankly, you can't totally protect individuals any more on anonymity, which means you can't absolutely protect their privacy. You, you cannot do that with encryption any more, so you have to do it with some kind of, you can and you can't.

If you try to teach ethics to people, probably you fail if they don't have a moral compass themselves.

Yes.

Isn't that right?

Absolutely. And, and here is where governments are going to start to differ. Because what is, is OK in a democracy may not be viewed as, as, you know, comparable, or acceptable, in a different kind of regime. So, you know, we are on a global stage. You know, some of the, the businesses that, that are now bigger than countries, you know, have to operate in different countries, and the rulesets are going to be different. So, it's going to add a huge complexity.

[1:15:03]

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

[laughs] Oh my goodness. There was... There was one brilliant moment when we were working with, I think it was Abbey National, and we had just done these catchment areas for them around their stores. And they had agreed to pay us, I think £30,000 for this project. And, we presented the results, and they were like, 'This is fantastic, absolutely brilliant.' And, and we sent the invoice off, and they wrote back to us and they said, 'When are you going to bill us the rest of this fee?' And the price we had quoted for the whole project was the price they thought for each store, each branch. And that was a moment where we thought, ooh, we got that slightly wrong. Value pricing gone very very wrong. Anyway, we were delighted, so, actually it didn't matter. But, you know, that was one moment. Oh gosh, so many moments that we got wrong. Gosh. Yeah, you know, when you, when you are running Clubcard and you are sending, you know, offers and vouchers of meat, coupons, meat promotions to vegetarians, when you are promoting alcohol to teetotal, I mean that's got much more complex now. We've got vegans, we've got kosher, we've got free from. So getting that right is, incredibly important.

[1:16:47]

Since 1980 you've been working with contemporary big data that was big then and now you're dealing with more big data. No less than Sir Tim Berners-Lee has warned of the, 'a digital dystopia, and squandered opportunities', as he launches a global action plan to tackle misuse of the Internet, according to the Times in November this year. 'He has unveiled a series of standards in Berlin, over fears of increasing online

threats such as electoral interference by foreign powers, hate speech, innovation of privacy, and disinformation.’ Are you worried about precisely those types of things as well?

Absolutely. And that’s why I am giving the knowledge I have, the experience I have, particularly the focus of business. I’m giving all my efforts to Government, to actually help in all these respects. Because, you know, my, my career is, is not, you know, solely about building businesses to, to sell. You know, I’m, you know, I’m working now with Government to, to share what I think is good work, and what is dangerous work, much as, as Tim Berners-Lee has, has talked of there. And, to encourage girls and women to aim higher, and, and by, you know, gifting all of the female lead to every school and university in the country, it’s a way of trying to change mindsets, and, and let people know all the opportunities that are out there, rather than the ones that are filtered. And the theme really is the same, it’s all, all about filtering. You know, the information girls receive is filtered. It’s filtered on social media, it’s filtered in schools, not because anybody’s trying to be bad, it just is. And similarly, we’re worried about filtering, whether it’s political campaigns or, or whether it’s the, the offers or the insurance we’re offered, because of something deep in an algorithm.

Is Government really listening, or does it have a tin ear for these issues?

Well, the one thing I’ve been very quick to acknowledge is, I understand business. I am no expert on government or politics. I am working with people who seem to be better placed, and who seem to know, who to talk to and who to influence. So my trust is in them, my colleagues on these boards, at the moment. I don’t think any system is perfect. I don’t think businesses are perfect. I don’t think academia is perfect. So, I think sometimes you have to trust. And, you know, I have always believed that if you have facts and evidence, you can change people’s minds.

[1:20:08]

You are a terribly rational person.

I'm a very rational... I come across as non-scientific, but I am so rational. I've had a lifetime of seeing the power of data and the facts. The... The thing I would say that has inspired me most is that there are two dimensions to me that matter most in business, maybe in life, and that is, courage, and honesty. And, when I say honesty, it is the honesty of looking at a fact and finding it unpalatable, and then the courage to do something about it. And I find those actually quite rare qualities, but they are ones that I hold most dear, because, I've seen the power of accepting what is true. Because only then can you do something about it.

It's the objective of the Archives, Edwina Dunn, OBE, to capture the past, and we have captured 40 years of your career in IT, and now we end with the inspirational part: have the courage and honesty to look at facts and to take what the facts tell you and act accordingly.

That's exactly it.

Thank you so much Edwina Dunn, OBE.

Thank you.

[End of Interview]