Sian Cleary

Interviewed by

Richard Sharpe

24th November 2023

By Zoom

Copyright

Archives of IT

Welcome to the Archives of Information Technology where we capture the past and inspire the future. It's 24th November, a Friday, 2023. I'm Richard Sharpe and I've been covering and researching, talking about the IT industry, first of all the computing side and then the wider IT side, since the early 1970s. And I'm very pleased to introduce someone who has been inspired partially in her work by the Archives, who I think is the youngest person we've ever interviewed who's ever made a contribution, Sian Cleary. Welcome Sian, to the Archives.

Thank you, Richard.

Now, we're going to focus eventually on your work in your dissertation on how effective government policy was from '92 to '97, but also you have some very interesting observations before that, and hopefully after that as well, because I'm going to press you on those. Now, you were born in Frimley – is that Surrey?

Yes, Frimley Park Hospital in Surrey.

Okay, near Guildford?

Yes, near Guildford, yes.

Presumably because your mother was there, and what was your father doing?

Yes. So we grew up in a place called Yateley, which is next to Sandhurst, so Frimley is very near there, it's on the borders between Surrey, East Hampshire and Berkshire. At that time my mum was a graphic designer and my dad was a car mechanic, he'd started out as an apprentice at Citroen and he'd become, basically went on to run his own business.

This is an Irish family, by your name, is that right?

Yes, there's a bit of a, to make things a little bit more tricky, my Irish roots are actually coming from my mother's side. So my mother's side are from – surname is Rose – and they were from Dublin, Protestant family, and my dad's side of the family,

his father's, well, his great-grandfather actually changed their name to Cleary. So it was actually Plum, so I would have been Sian Plum, which is nice, nice short name. But yes, they changed it to Cleary. We still haven't got to the bottom of that and I expect when I've got a bit more time, maybe when I retire, I can do the whole history, because to change your name to an Irish name would have been quite unusual at that time, I would think, given some of the prejudices and difficulties at that time. So yeah, we don't know why, but yeah, the Irish side is actually from my mother's side.

So you liked your football a lot, I hear. Is that right?

Yes, yes. So I've always loved football. I started playing football since I was about six years old. I had a lot of energy as a child and I think football was one of the one areas to kind of use up some of that extra energy and, yeah, played for a boys' team, so all the boys from my local primary school, we all played in a team. I was the only girl in the team and often the only girl, or one of maybe one or two girls in the whole league, so I used to play up until about 11 for a boys' team. And then at 11 you – at that time – you would have to join a girls' team, so I found a local girls' team and I've played all the way up to university and afterwards and yeah, dodgy knees and injuries have kind of slowed down my career recently, but yeah, I still watch football and support West Ham United and have recently started playing walking football, which is a way to play without getting so injured, so I've really enjoyed being able to play again.

Good. Were your parents very interested in your education?

That's a good question. They, I think they were interested in me getting a good education and we were fortunate enough to have some good state schools where we lived, but they were not people that were very interested in kind of academics and not necessarily pushing me to achieve certain things or anything like that, just to go and to work hard and, you know, that kind of thing.

[00:04:54]

You have two sisters, did they go to university?

Yes. So I was the first person in my family to go to university and to also go into higher education and although it was their decision I, you know, obviously tried to kind of encourage them if they wanted to, to do the same. I wasn't necessarily a hundred per cent clear that I would go to university early on, and so it was quite hard to come up to that decision on my own and so once I had, I had help from some family friends whose family had been to university which helped me to make the decision.

What was your reluctance?

So one of my reluctance was we unfortunately, we lost my mother to breast cancer when I was 12 and my sisters were a lot younger, and I'd taken on quite a lot of responsibilities at home as an elder sister and kind of helping my dad. And I think at that time I found it, I felt like I was kind of abandoning them a little bit and going off to university. And to be honest, at that time the fees, you know, the fees had started to come in, so not the fees that students pay today, but sort of 3,750 I think the fees were per year when I came in, and obviously the living costs were a big consideration at the time. So those were a couple of things that made me slightly reluctant, but on balance, you know, I had good grades, I was interested in the subject and kind of wanted to pursue it, wanted to pursue it more.

You went to a comprehensive, how was that?

Yeah, so I guess I've got nothing to compare it to, so from my point of view, yeah, I had some good schools and some good teachers. Sport was a big thing at primary school, we had one headmaster who was obsessed with sports and I think probably, I mean I was interested in sports, so I think a lot of what my interest in sports came from there. And at secondary school, again, I think although it was a state school, we again had lots of access to different sports, so we had an astroturf, we had big playing fields and we were attached to a leisure centre, so we seemed to have, you know, it was a communal leisure centre, community leisure centre, so you had access to a lot of sports opportunities with that. So yeah, so for me, school was good, I really enjoyed my time there and particularly studying history was one of my kind of

favourite subjects as well as all the sports that I got involved in outside of the classroom.

Now, you did a big range of GCSEs, including German, graphic design, science, maths, English literature and language, IT, PE, again, history. So, that's another range that is very broad indeed. Why did you choose those options?

Yes. So I think you'll probably see this as a theme maybe going through, and maybe I've noticed that myself as I've gone back in advance of this interview. I think I did have a broad range of interests. So we had a set, you know, you had to take a certain number of options, and then there were some that you could pick yourself. So you, you know, one of the reasons was pursuing academic subjects but also things that I found interesting and with a mind of what you might want to do at college. So, you know, some people are set that they want to be a doctor, you know, from day one, so in a way your path is laid before you, you know what options you need to take. For me, I liked the arts and humanities and if I could have taken more of those, I would of, probably, but the way that we had our options chosen at school was you sort of pick from, one from humanities, one from languages, one from, you know, other areas. So that's essentially, I picked sort of my favourite subjects and also the ones that I was excelling in prior to the GCSEs.

[00:09:27]

You moved on to Farnborough Sixth Form College.

Yes.

And then suddenly psychology pops up.

[laughs] Yes.

As an A level. Why?

Yes. So what was interesting, I'd gone from this state school that was kind of small to medium-sized, quite local, and I don't know if you've heard of the Sixth Form College Farnborough, but it's almost like a mini university, that's the best way I would describe it. So many children from the whole area would go here, it would be people that we had once been to primary school with who had gone off to private schools and would all come out of private schools to go to this college. So it was about 3,000 students, so it was quite a big change. And the curriculum or the options offered were just, were like a university. So any course you could think of, from archaeology to sort of computer science, music, the Classics, Latin, accounting, anything you can imagine, they offered as a course. And I saw psychology, obviously you'd not really be able to take that as a GCSE, and I thought, oh, that sounds interesting. So I took psychology based on that. But yeah, there were a whole number, it was actually very difficult to choose because also you'd never taken those courses so you were taking a bit of a gamble as to whether you were good at them or also whether you liked them. So that's where psychology came, I thoroughly enjoyed it and I still am interested in psychology to this day. It's very case study based. It's similar to a humanities, but it's got a bit more of a kind of social science side of it, which I really enjoyed as well.

Do you think it's helped you in your research?

I do think so. You definitely had to establish methods of research, and I think that is definitely when you move into a Masters or you're writing any sort of dissertation, having a methodology and knowing what you need to measure, having a hypothesis and trying to measure it is, you know, is helpful. The one thing I would say that is different about history is obviously you're not necessarily coming in with a theory that you're trying to prove or disprove, rather – which you would do from a science point of view – rather you're looking at the evidence and then forming a conclusion based on that evidence that you see. So, slightly different, but I think the principles are still broadly useful.

So you go two ways. Once you make a statement and you try and back it up, and the other one you have to sift through the evidence and see what the patterns are.

Yes, correct.

And you've used both of those techniques, have you, in your research?

Yes, I've used those techniques in my research and I think also in your professional career, you know, having that social science side is also helpful, you know, I'm sure we'll come on to it, but you know, I've gone into a career of IT and software development where you're very much having to test theories and hypotheses and have a method and an approach, a methodology, so I think those things do lend themselves to that psychology or scientific study approach.

Were there computers in your secondary school?

There were. There were computers in my primary school. Not many, but yes, we did. My age group was the Computers for Schools vouchers. I don't know exactly when that was, but Tesco's and all the big supermarkets would give you vouchers at the till and you would give them to your school for computers, so that was definitely a big thing. So I think every, I don't know if every class had a computer at primary school, but certainly we had one or two in the whole school. And then when we got to secondary school, there was a computer room and you'd do all of your IT lessons in there and if you needed to use the computers afterwards you'd be able to go into there and I think there were some in the library as well. So by that point, yes, there were plenty, which was great.

Not an option you chose though, for GCSE?

No. So, well I did it at GCSE. Unfortunately we'd had quite patchy IT skills and kind of lessons going into GCSE. We were basically told by our year tutor that, yeah, people were not at the right standard, and so I thought well, perhaps I should take it as a GCSE then, to make sure that I'd got the skills that I need, probably with one eye on the fact that, yeah, computers were becoming an important thing. So I'm not going to pretend it was my favourite subject at that point, it was definitely PE and history, but I did take IT because I didn't want to feel that we were left behind as we were going into further education.

History - A, PE - A, graphic design - A, IT – C, maths - B.

[laughs] Yes. Yes, not your traditional kind of computer science background or results you would think.

That's okay.

No, no, but that just reflected where I was at the time, you know. And yes, so it's one of those things that if you looked at those results at that point in time and looked at my interests, you wouldn't necessarily predict, yeah, probably the career or the route that I've gone down, but that's life.

[00:15:15]

And so Farnborough, four A levels: psychology, physical education, history, general studies, and you decide to go to university and you apply to Queen Mary in London and you get in. Did you move to London?

Yes, I did. So my family did have roots – I looked at Birmingham, I was interested in a few different places, I actually got into Queen Mary through not clearing, but Birmingham was actually my first offer, I didn't quite get the grades, and I got offered a place at Queen Mary and they said, yes, we'd love to have you. That was my second choice, and yes, I moved to the Mile End Road quite swiftly afterwards. And yes, actually that decision to move there has become obviously a defining decision in my life that had I gone to Birmingham, the opportunities and people I've met would be entirely different, so I'm very glad that that actually turned out in that way.

I know we're at least a generation and a half apart, but you do seem to have been able to make and have forced on you a number of choices that I didn't make for myself, they were forced on me in the process I was being moulded in. But you are making, seem to be making choices all the time.

Yes. Yes, I'd had other choices, especially where I'd excelled at football, I also had choices to go and try and do football fulltime rather than do A levels and I felt I was probably not quite good enough at football and probably, you know, had the opportunity to do academic study to a higher level. So I'd already made that choice, and you're right, I think being the first of something means that the choice is yours and, you know, you don't necessarily have, (a) you don't have the pressure of others telling you what you should do, but also you have the responsibility to try and navigate your way through the world. So I think, you know, I'd already had to grow up quite quickly with the passing of my mum, and I think it's one of those things where you would never want it to happen but you do get a level of independence and responsibility thrust upon you in some ways. So yeah, for me I considered all of those choices with the information I had at the time, and yeah, that's, you're right, they were conscious choices along the way.

London is an expensive place to live in, how did you survive?

Yes. Well, slightly cheaper – well, not so much now – but it was slightly cheaper on the Mile End Road. We did receive, I did receive some bursaries and grants. Queen Mary was particularly good at offering those things to students that fell under a certain, parents fell under a certain earnings threshold and things like that. I also got a student loan, which, you know, that's something that I was very proud to have paid off a couple of years ago, because it's something that a lot of people in my generation, unless your parents have paid for you, you know, you carry it round with you. So yes, I got a loan and I also worked part-time at the weekends and a couple of evenings at the Waitrose in Canary Wharf. So I used to go into Canary Wharf and I worked on the fruit and veg section and horticulture, so I did all the flowers display at the front in Canary Wharf. Definitely wasn't qualified to do it, but used to go, oh, they look quite nice and just, you know, kind of get them out and yes, that's what I used to do to kind of fund my time in London.

[00:19:16]

And you took history at Queen Mary. Tell me the structure of the course, please.

So the structure of the course, so three years, and you would tend to get, it would tend to be weighted, every year meant something but it would tend to be weighted towards your final year as you kind of get to grips with what you're doing. And then you had an option to do a dissertation or you could take a special subject in your final year. So for me, again, going back to your point before, I took quite broad module options, I didn't list them out, but if you'd see them, you'd say oh, they're all from all different time periods. And part of what I was trying to do is really understand what part of history I was most interested in. At school we had predominantly studied Nazi Germany, and I think most people my age, if you ask them, they would say, well, I know about Nazi Germany, but I don't know anything about British history or, you know, other periods, without kind of studying outside of school. And to be honest, at college we did a little bit more, we did Bolsheviks and a few more other topics, but it was again, a lot of Nazi Germany, which is of course incredibly important period of history to study, but at the same time, some of the other things that connect Britain to the world, we didn't necessarily study, so we didn't understand as much about the British Empire or, you know, politics necessarily at that time. So, part of what I was trying to do is study all of the periods of history and areas that I took interest in that weren't necessarily things I'd previously studied, and then as my time went forward, I kind of specialised in what I found interesting. So in my first year I took Britain since 1945 as one of a range of modules, and instantly I kind of really enjoyed that. So it was Britain's relationship with Europe, Britain's relationship with America and what each Prime Minister had done relatively in their periods from 1945 all the way up to today, and I think as soon as I took that course it was tangible, because I'd heard some of the names but I didn't know anything about them. So I really enjoyed kind of reading up in that area. At Queen Mary Professor Peter Hennessy, now Lord Hennessy, was a very important figure in contemporary history, and so we had the privilege to study- I didn't necessarily study under him, he'd kind of stopped teaching at that point, but his people that had been mentored by him were the ones that were really pushing these courses. And so in my second year I studied Cabinet and Premiership, which again was a Peter Hennessy course, designed to tell you everything about Cabinet government, the constitution, how our government works, the Civil Service, and that's where my interest really peaked in that topic, and I continued down that path with my final year, I studied Tony Blair and New Labour. So let's call it ultra-contemporary history, because at that time Gordon Brown was

Prime Minister. So we had some, a lot of people that had been part of that government come into class and speak to us about what it was like to be in government at that time. And that's where my love of kind of contemporary history, but also oral history and interviews, such as this one today, become very, very interesting because we would be able to read someone's memoirs or read a book, or study that topic and then have that person come into the class and almost, in a nice way, cross-question them and say oh, you'd said that in your book and now you're saying this, you know, what's happening, and all that kind of interesting area of ambiguity. And I think that's also a lot of what I've been able to do in my recent dissertation is to interview the people who were really there, so try and understand first-hand some of those challenges that they had at the time.

You may think it's a trivial question, but do you have a favourite Prime Minister in that period from 1945?

[laughs] Not a trivial question at all. Oh, I wasn't expecting this question. Well, who would I say? I would probably say, I studied both – if we go to kind of like slightly older periods – I studied a lot of Harold Wilson and a lot of Harold Macmillan, and studied them as, comparing them as modernisers. So, I actually think that, I do really identify with Harold Wilson's love of technology and how he was trying to come across as a modern Prime Minister in that era. But actually when you go back and look at what each Prime Minister did, I think Harold Macmillan actually, because I think because he was so well read, he actually had a lot of modern ideas for somebody who was quite old at the point that he was making those policies. So I would say I really find that period of time fascinating. I've not answered your question directly, I'm aware. And yeah, I think probably for those reasons I would say probably, yeah, probably Harold Wilson and Harold Macmillan, the two Harolds probably are my favourite from that period.

[00:25:23]

Supermac and the great pragmatist.

That's it, yes.

That's what you're going for.

That's what I'm going for.

Well, I think that's a pretty good choice. I'd have put Attlee in there, but…

I would always put Attlee, I mean, yes. I mean certainly as, I should say, as the school of Peter Hennessy, Attlee's Cabinet government, you know, cannot go unspoken, so I would say certainly, you know, how he ran his Cabinet and his kind of qualities as being Major Attlee and how he brought them into decision making and how they were able to achieve so much in such a short space of time is remarkable. I'm not sure his quite curt style and approach towards the press would work particularly well today, and that's something we've been debating with our recent Masters group. But yes, certainly he would definitely get a mention as well.

Apparently he used to introduce, people would like to come to Cabinet and present their papers and waffle on about them, and he'd just look at the Cabinet and say, well, you've read this paper, haven't you, so… Instead of allowing them to start waffling, he would just get in there.

This is it, this is it. And I think he must have said, I think it must have been perhaps to Churchill, where he said, where he was the Deputy Prime Minister in the wartime coalition government, and he turned to Churchill and said, 'A monologue is not a decision, Prime Minister'. And I think that really encapsulates that kind of Major Attlee style of kind of conviction and decision making process, yeah.

[laughs] And someone turned to Churchill much later on, was criticising Attlee, and Attlee just – I'm sorry – and Churchill just wouldn't have it. He said, he was an excellent Deputy Prime Minister, absolutely excellent. Right, and of course, around that period, 1948 – a wonderful year, because I was born then – we have the Baby machine in Manchester, 75 years ago, running the first stored program computer. And we also have the formation of something else which becomes rather iconic for the UK, the National Health Service. We're not going to really deal with the National

Health Service, but we're going to deal with the effect of the Baby machine and also of course Cambridge. My son, because I was writing something about this the other day and it's on the Archives website, Happy Birthday, Happy 75 Years to the Manchester Baby, he was astounded by the contribution of Manchester, because it is just not there in our history now, it's all Cambridge, Cambridge, Cambridge, Cambridge.

Yes.

Why did Manchester fall down, do you think?

That's a good question. Certainly, I was surprised actually in my own research, I think probably I was of the same opinion as your son going into it where I'd understood that we'd had a big contribution towards the history of the computer in Britain, and also obviously of Alan Turing, but I had not seen Manchester too much in my basic understanding. As I dug deeper I realised that, yes, actually Manchester – and I write so in my dissertation – Manchester and Cambridge are on par with each other, they're not, you know, so why that one's been forgotten, I don't know. There would have to be some more research done in that area, but certainly there's some key figures from Manchester. There are archives and there are national computer history archives based there. Again, I don't think they probably get enough publicity perhaps towards that and maybe they could do more. I mean Manchester is really kind of, especially with, you know, the Mayer and everything like that, they've really taken a lot of key cultural identities in Manchester and really built on them, but I don't think this is one that they have done, and I think they should. There's also some great research on the, I forget his name, but the guy that was the first Information Commissioner or Data Protection… the team that look after data protection, all of that was based in Manchester as well. So there's a whole side of it that is just completely, has not been kind of preserved in history. So, you know, part of what we do when we look back and we make our findings is to kind of bring to light the fact that these things are important. But yes, why that's the case, I'm not sure.

[00:30:13]

Ferranti, English Electric, ICT, ICL.

Yes.

A lot of the action was in Manchester. Now of course the action is said to be in Cambridge. Now, you've spent a year on your new thesis, your new dissertation, yeah?

Yes.

And as well as some very, very useful background before it, focusses on the years '92 to '97 and what basically central government was doing, particularly the DTI, in relation to IT. Is that right?

Yes, correct.

I've got it right, good.

Yes, yes, you've read it right, yeah.

You point out some people that have been in the Archives. What drew you to the Archives in the first place?

Yes. So I had a very good conversation with an old friend who, we were at Queen Mary together, he was a couple of years below, and we had all been part of a group called the Mile End Group, which is a forum essentially to bring policymakers from Westminster and Whitehall together. He had gone on to work for them and also complete his PhD under them, and he'd actually done his PhD in cybersecurity and the origins of cybersecurity. So when I first came back to university and I was speaking to the Strand Group, which was the Mile End Group – they've been renamed now they've moved to King's College London – they said speak to Ash, he'll know what to do. So he is the first person that pointed out the Archives to me, and he said

also reach out to Tom, he knew Tom as well. So he said, speak to Tom and Tom will be able to help you, so Tom Abram of Archives IT. So those were the people that started it and what really helped for me was grounding my research in the history of not just the internet and not just digital policy, but going back into computers and telecoms, and that's what Archives IT was really helpful for. The other person that recommended Archives of IT highly was Ian Taylor. So Ian Taylor was the key minister in the period that I studied, so from 1992 to 1997 he was the Minister for Science, Technology and Space, as it was at that time, he sat within the Department for Trade and Industry and he said to me if you haven't already, you know, reach out and look into the Archives. He had previously done interviews with you as well, so he shared that. But again, yes, the timeline of where digital policy starts and ends with what I was trying to really get to the bottom of, and so that's what I was primarily using the Archives for.

Is that where you found Professor Temple?

Yes. So I didn't manage to interview Stephen Temple, Professor Temple, face to face, but the wealth of information in the Archives was invaluable really to that section of the dissertation because one of the key themes of the dissertation is talking about how the DTI essentially bucked the trend of the rest of Whitehall and recognised where it needed to bring in expertise from outside of the government. And Professor Temple, as well as Professor Jim Norton as well, actually, I would say, and I'm sure there's many others, but those two were the ones I focussed on in that team at that point, were really sort of expert outsiders that were brought in at a level within the Civil Service that allowed them to be really influential into the direction of the DTI and for digital, the very early stages of digital technology at that time.

[00:34:23]

I thought that he was crucial – I interviewed him – and I thought he was absolutely crucial to the formation of GSM in Europe, which of course was a huge success.

Absolutely. And I think, you know, I've put the period of 1992 to 1997 to focus on the major years, but actually a lot of that work that Professor Temple did was slightly

before that. So it was 1987, it was around the idea of formation of single market and European ideals and one of my arguments on why he's so crucial is essentially that by having him as an expert at director level, he had great understanding of the technology required to make a collaborative plan for Europe, but he also understood the context that he was in, so understanding that actually we would need to really scale this in order to make a mobile phone affordable. That's a really important concept, because without that scale across Europe, you don't get the handset for £200. You know, it's those kind of concepts. And I think Professor Jim Norton, when talking about Temple's contribution, really puts it very well where he says, essentially in America, although they were arguably way ahead of us in some respects, they really let their telecoms kind of, you know, bloom too much too quickly without having a co-ordinated approach to that, so they didn't, they weren't able to call somebody in a different state. You know, they didn't have that connectivity so they actually got ahead quicker but then, you know, were slower to adopt some of these kind of key standards, whereas Temple was basically corralling this group in Europe to come up with a considered and collaborative approach, and in the end that is the basis of mobile, digital mobile technology we still have today. So the fact that he's got kind of a plaque in the Science Museum in London as a civil servant, as an individual contributor, I think speaks volumes to the individual contribution he had.

He also, I think, had a broader concept than just the PTTs. He was willing to involve and engage a large number of different companies with different backgrounds in it, because I think he saw it as a networking process, not just a telecoms process. And I think maybe – I want your comment on this – there is a fundamental cultural difference between the networkers and, I don't mean the political networkers, I mean people building networks like the internet, and telecoms people, there's a fundamental difference between the two. I don't think that it's often articulated enough. What was your comment on that?

Yes, I do think that's true and it is certainly somewhere that I'm certainly understanding more about networking and telecommunications as I've gone through this process, I've very much been for my career in the software domain. So this has definitely been something that I've understood more, you're right. I think it was the director for Vodafone said that the memorandum of understanding that Temple

produced was the most important, you know, one of the most important documents for the telecoms industry. But you're right, the network side is really important. I think it's Temple and it's also, I would say, Professor Jim Norton as well, where Norton specifically when I interviewed him, he had a lot of experience with things like packet switching. So as well as that telecoms knowledge, you need to understand the network, and I think Temple, like you said, those two, they sort of transcend their industry and I think that's where you get some of these major breakthroughs, because without the networking you don't have the internet, you don't have these kind of key concepts that we rely on today. And people just think the internet works and that's the end of it. You know, this kind of knowledge across domains is really, really crucial to, yeah, for the advances of the time, but also you would have to say a lot of those principles are still quite key to the internet we still have today, even though we have so much more connectivity and speeds and performance, those broad concepts are the same. My partner is actually more into networking and design than I am, but he would always say, you know, networks don't change very much, but everybody needs them. So, you know, some of those principles you know you can still see through to today.

After all, his book is called Casting the Net*, is it not? Stephen Temple's book.*

Yes.

[00:39:16]

You were much taken as well with the work of Charles Hughes.

Yes.

Tell me about him.

Yes, so Charles Hughes, I would say that when I was trying to pull out the kind of broad contributors to the DTI policy, Department of Trade and Industry, at this time, he was another person who I think was really important. So he had had a background in ICL, who we mentioned earlier. So he had that industry experience and at this

point in time Stephen Temple and Jim Norton, you know, they were really leading the
way. So Temple with mobile networks, Professor Jim Norton with the
Radiocommunications Agency. So all of those kind of infrastructure pieces I feel like
by that point the Department had the expertise at the right level to influence the
direction of the policy, but what they didn't have was knowledge of the internet and I
think that's really where Charles Hughes comes in and brings that strand of expertise
into government. They leant on him heavily, he was seconded from ICL to work on a
series of initiatives. At the time, you know, people didn't know what the internet was,
they knew it was important, and I think Ian Taylor recognised that they needed
expertise and I think his role in bringing Charles Hughes in was invaluable. And
working on those, you know, he initially got brought in to say will the internet have
an impact on businesses and society, and he actually took that question and turned it
into, well yes, of course, and these are some of the things that it will influence. So he
had the Information Society Initiative, which was able to promote – he had two
strands – one was to support business, so to explain to business the benefits of the
information society and the internet and what they could do with it, and the other side
was more around trying to educate the public on what the internet could do. All
things were very important at this time, you know, but not many people had used the
internet, the internet had been around since 1992 but there was quite a slow burn in
terms of people getting on board with it. So really people didn't know it was the next
big thing, it was just *a* thing at this time, so I think he was really helpful in kind of
trying to shape some of that policy and yeah, do a bit of an educational piece out to
business and society on what it could offer.

You thought that the Information Society Initiative was quite a success, didn't you?

Yes, I would say so.

How?

I would say at the time it still got the information out there and I think although, I
think it partnered with business very well, so I think that helped the process, and I also
think that although it was a small contribution, it was still an important one for the
government to be kind of making, supporting the process of bringing education on the

policy out to the wider businesses. They also launched some competitions and things for smaller businesses, so I wouldn't necessarily say they were able to influence large corporates in a huge way, people were already taking their own policies and creating websites and that kind of thing, but what they were able to do was offer some grants to smaller and medium-sized businesses to build out their own websites and things like that. So I think that helped, even in a small way, that helped promote the idea of what you could use the internet for. And at that time, having a CD-ROM with your catalogue on it, and just thinking differently about how you could use the internet, rather than it to be something you were afraid of or, you know, that you don't get on board with. So I think those kind of key points were important.

And yet, why don't we have big companies in this country as we did in the past?

Yes.

The only one we have, and we don't have it, is ARM.

Yes, and I do make this point.

You do make that point, so I want to press you on this, why don't we? If this policy was successful in those five years, we should surely have something better than we have now.

Yes. Well, I think it's the difference between educating people on what the internet is and also investing. I think that's the thing, that policy was about education and I think you can measure that in its own way. I don't think we don't have companies because people aren't educated on what the internet could do, but I do think there were opportunities missed where companies could have potentially been formed in the UK and they didn't do that and they probably went to America or went somewhere else. I think that is a missed opportunity. You know, our Stock Exchange does still represent many of the kind of larger kind of dividends-based companies of kind of what we would traditionally have invested in so, you know, telecoms and those kind of things, rather than technology. And if we look across at things like Silicon Valley, the level of investment that was made by the government, the tax breaks that were introduced

by the government, were all things that allowed America to really build out that start-up community and those new companies.

[00:45:06]

Now, one of the things that you could say is I felt in the research that despite the improvements and successes that the DTI had, they were often kind of a lone voice in that government and I think it's always important to situate why things did and didn't happen in the context of that period of time. So, you know, John Major had essentially lost his majority by this point, he was a bit rudderless, there were lots of scandals in the government, they had Black Wednesday, they had all these crises, and he was not a technology enthusiast, he was basically the opposite, I would say, based on my research. So he essentially did not see the value, I would say, of the digital policy that the DTI were pursuing. Had he seen it as something, as a Prime Ministerial priority, perhaps he could have had more of a co-ordinated policy, of digital policies which we don't see in this period and that we're still grappling with today, I would say. So I think if, you know, we are shaped by our Prime Ministers and yes, if we could have come up with sort of tax cuts or encouragement to industry to start their technology companies here, you know, all that time ago back in the late eighties and early nineties, perhaps we could have really fostered that community here and had more growth. ARM still has its expertise and it has been, you know, a highly successful company, so it's not that we have had no success, however, I don't believe the government has had a huge amount of influence over the success of ARM where they could have, like the US, on a smaller scale, put more investment in and encouraged that kind of innovative culture here at that time.

What do you think of Sunak's AI initiative in Bletchley Park last month?

I think it's very interesting. On a personal level I think it's great that they are taking AI seriously and that they brought a huge amount of people in a community together. So from a kind of optics point of view I think that was great. Whenever you bring that many people together at once, you know, sometimes it's difficult to actually have some kind of core actions that come out of it rather than just a, isn't it great that we're all together, so I think probably some great discussions were had, I would have liked

to have been there, but at the same time, you know, where we have a few kind of AI and those kind of companies in the UK, again, we're still very much dependent on massive companies in the US and their CEOs and actually, we've brought them together but how much influence do we have when we're talking about things like regulation and things like that. So I think it is quite hard for the British government to lead on that policy, so as a minimum, getting people together and talking about it I think is a good thing, but I think we are beholden to those larger AI companies. And, you know, the reason why these companies in the US have the ability to be leaders in the AI industry is the previous investment that's happened, as we discussed previously, during that Silicon Valley start-up phase way back when. So it is connected, they've continued to grow and they've continued to be platform leaders and so we are playing catch-up. We do have some good companies in that space, and Darktrace is one of them, you know, we are trying to do things, but I think what we struggle with is traditionally the role in British government is to be the penholder in creating legislation and policies and things like that and, you know, I don't think we're a leader in this space at the moment, so there's a lot more work to do.

[00:49:30]

Yes. I think, as far as I know, I heard a report that the City is selling Darktrace short, expecting the shares to plummet. Now, The Economist *today identifies two types of people: the bloomers who think that AI's going to be wonderful and everything is going to bloom, and the doomers who think it's going to destroy humanity. Where is Sian Cleary on this?*

What a great question. Well, in life I tend to be more of a bloomer, but I do work in software, so I'm not sort of a naïve bloomer. I would say it has the power to do great good, but it also has the power to do some terrible things and I think the challenge will be how can governments and other organisations police the AI effectively to bring out the good in it.

Why do you think it needs policing?

Why do I think it needs policing? Well, I think we've already seen with the internet what happens if it's not policed at all. I think the power of AI is much greater, much greater than that. I think we're already seeing things where very powerful technology leaders are having an impact on our own country, our own society. We see this with the spread of misinformation, we can see this in kind of deep fakes and, you know, political campaigns. We may see it in this upcoming election, we've already seen it with Keir Starmer and voice copies, Sadiq Khan's. So we're already seeing some of those effects now. I think the main thing is being able to, I do think it needs to be policed because it's so powerful. And the thing is, everybody in the AI industry is saying the same. So the internet was interesting, nobody wanted it to be policed, so anybody that was kind of leading the way in a company didn't, wasn't asking for regulation. Interestingly, with AI they're all asking for regulation, it's just to what degree of regulation that's there. So yes, I have…

And who should do it?

Well, that's a great question. I don't claim to have the answer to that, and I don't claim that the government is necessarily the best person to answer that question, but what the government should be able to do is I would feel that some sort of, you know, global forum, which represents, you know, citizens' views, would need to be assembled to kind of manage those discussions. I guess to some extent those conversations are already happening, but I think rather than at an individual country level, I think there could be a better outcome if those things were discussed at a more global level, as they affect everybody.

And to include China?

Well, I think you'd have to. Yeah. It's a difficult global network, but you would have to include discussions. Perhaps people wouldn't want to, but yeah, I think you would.

Now, between graduating with your BA, you've spent 11 years doing what?

Yes, so I went into, I joined a graduate scheme straight out of university at Waitrose and John Lewis Partners, and I joined them on the IT graduate scheme. At this point I

knew that I liked the company, John Lewis and Waitrose, I'd worked for them part-time, so I understood some of the business processes that they had. I looked at all the graduate schemes on offer, I knew I wanted to do *a* graduate scheme because I wasn't entirely sure what I wanted to do, but I knew I wanted to work for a company. So I looked at all that was on offer and I kind of didn't go for finance, didn't go for buying, didn't go for kind of working as a general manager in the store, but I had, when I was at Waitrose working part-time, I had, did things like stock checks, I did branch ordering, so ordering replenishment stock from, you know, into the store and things like that. And so often these systems would go wrong and I wouldn't know why and didn't really understand where all the information was going, so part of me thought, you know, be a good way to understand the company. And the other thing about the John Lewis graduate scheme is they didn't discriminate for not coming from an IT background, which was quite unusual. So I thought well, if they're willing to… I thought well, it's worth applying and seeing where I get. So I joined the graduate scheme. The first six weeks, so there was 12 of us in total, six of us went to Waitrose and six of us went to John Lewis and the shared corporate teams. I moved back, so everybody that wanted to go to London, Victoria, in John Lewis got put into Bracknell, it seemed everybody that wanted to go to Bracknell ended up in Victoria. They did ask us what we wanted and we're not sure if that was deliberate or not, but I was in London at that time, I'd graduated, I'd just seen the Olympic Park being built and was quite set on staying on the Bow Road and yeah, got the news that, yeah, you're starting at Waitrose, which I was very happy about, but it was in Bracknell. So I was much nearer to my home, so I moved back, I moved back home in those initial stages, yeah.

[00:55:53]

So what did you do?

So, we started out and did a bit of everything, and that's what I think was really useful for me, again, almost like starting from a broad base, working out what you liked and didn't like. The first six weeks we were taught, we were sat in a room in a conference centre on our own, nothing to do with the organisation, we were there with an external trainer learning how to use COBOL and Dv2 databases, and I thought I'd made a

grave mistake at this point. So, yeah, I was just about old enough to remember Teletext and I was looking at these black screens with green text and thinking, you know, what is this basically, what have I signed up for? And I had no concept of how this related to a job that I could possibly be qualified to do. So that was quite a rude awakening, I'd say. I spoke to the trainer because I was the one that struggled the most with that. There was six of us and everybody was sort of ploughing on and I was saying, why do we start seven spaces in and why, you know, why are we doing that? And he was like, I'm not quite sure this is for you. And I was thinking, well, that's it, you know, I've signed up for this, why did I think I could do this IT, you know, program and all of that. So he said, don't worry, you know, they've got other jobs, you'll be fine. So I got along, I learnt enough for that. We started out in support teams, so in the operational team, so we actually got to use the COBOL that we had. I think we were changing something for ticketing systems and supply chain systems. My friend managed to delay the fresh ordering process accidentally by going into the wrong program and, you know, there was a lot of that going on. But they did let us learn and we made plenty of mistakes along the way, but that was kind of part of it. The bit we did next is we did some business analysis and that's where I really felt that I was able to take it and run with it. My knowledge of the store processes I think was always an advantage that I had throughout that. I understood what it was like to be on the shopfloor and things go wrong or certain processes, so I had a fairly good feeling for some of those and I think as a business analyst, a lot of what you're doing is trying to identify with the person that's trying to use the system, and so I was able to learn a lot in the business analysis space and that was the area that I decided to progress in. So I started off as a junior and then worked my way up to a senior business analyst where, as I said, Waitrose was great in just letting you- your age kind of didn't matter, as a graduate they were keen that if you were keen, then you were interested, you could be leading on pieces in projects, and so I got to work in the supply chain team, I worked on forecasting systems, ordering systems, you name it, and that gave me a really good start.

[00:59:05]

You've now got a breadth of experience and research and there's something big coming down the highway, superhighway, information superhighway, which I want

your comments on, and that is something that's been a little eclipsed because of AI, quantum computing, the 'q' word. Now, according to some people I've been talking to, quantum computing is going to tear the internet apart because its security will be completely unsafe. Firstly, what's your view of quantum computing, is it going to come, because it's always around the corner, but is it really coming, and secondly, what is the impact going to be on the internet?

I think that's a great question. I don't feel very qualified to answer that, to be honest. But yes, I think it…

Don't worry, other people have answered it and they have even fewer qualifications than you do, Sian, so you have a go.

Yeah. I think it will come, I think it will come. I think the scalability that we're seeing with the likes of AI, which uses a huge amount of compute, and you know, the trends that we're seeing in this space, I think it's inevitable that it will come, come along. The ability to solve complex problems quicker and quicker, I think it's inevitable. How it's used and how it works alongside the internet, that I do not know at all. I think it'll be very, very interesting. We, again, this is an area where what I will say is, we have the ability to use this for the power of good, like we do for AI, so I think these are some of the key challenges and I think, you know, up until now a lot of people don't have opinions about these things and don't have knowledge, and I think instead now you need to, the basic levels of understanding of these things coming along need to be taught, people need to be educated on some of these things coming in because frankly, you know, these are going to be the things that basically change our whole, you know, working culture. What does a job look like in 20 years' time, ten years' time? All of these things have a massive impact. So, yeah, that's my view now, certainly an area I need to understand more on.

Are you going to go and do a PhD?

Yes, that's the plan. So I've really enjoyed…

Another Sian plan, eh?

Another plan, I know.

That's alright, that's good. Now, what's it going to be on?

Yes. So what I would like to do is, this area that I've… I've essentially… so as part of this, my supervisor, Professor John Davis, he has been the one to really help me champion this. At the Strand Group they've put on an event with Permanent, former Permanent Secretary for DCMS, Sarah Healey, on the importance of the history of digital policy. And then recently they've made Sarah Munby, who's the Permanent Secretary to DSIT, which is the new technology department, a Visiting Fellow at King's Policy Institute. So they're really kind of pushing for this and what's interesting is that this is such an under-researched area in terms of looking at the whole history of digital policy in the UK. What I would say is the Masters is almost the first chapter, if you can think of it like that. So what I would like to do, and that's why any feedback I get is really helpful and the people that I've met and interviewed along the way, I've essentially tried to, you know, a lot of that work will be reusable for the PhD because the Masters, what I've learnt, very quickly, is there's so many topics that you want to cover and there's not enough room, there's just not enough room. You think 15,000 words, oh that's plenty, well, not once you get started in this area and there's so much context. So what I'd like to do is take that almost as, rework it as the first chapter of a full history of digital policy and work very closely with DSIT and, you know, the policymakers to bring it all the way up to the present day. That would be my, that's my aim. You know, there's lots of things that are being done across government now in the digital space. Again, it's still not very co-ordinated, albeit there is now, you know, a department that's a lot more higher profile, so science and technology is kind of put at the front centre, which I do think is probably, if they keep this machinery of government changes, probably a good thing for the digital policy because it's going to get more focussed. But yes, that's the plan really, and what I would like to do, the reason for doing a PhD and kind of taking a bit of a change in my career is to try and use what I've learnt so far in the IT industry and apply it to this area of digital policy, not just for the PhD, but the opportunity to teach other people about this, because I think understanding the roots of it, and this is where Archives IT comes in, understanding the roots of how we came to be where we are is

really important context for future decisions. And obviously as an historian I'm slightly biased with that, but that's where, you know, history tends to, history doesn't repeat itself but it tends to rhyme, so I think some of the lessons that we have learnt along the way would be useful to teach to students, especially students who have grown up completely in the digital age. I mean I have somewhat been in the digital age in my life and actually reading some of the advances as part of this research and studying it have been a massive eye-opener to me, so I think somebody who's even more kind of entrenched in kind of having digital technology at their fingertips it's important to understand that context and maybe why we don't have, quite have full internet regulation now, why are we only just seeing Online Harms Bill come through just now, why wasn't it there before, you know, why are those decisions made, why hasn't it been a Prime Ministerial priority before this point, you know, that kind of thing. So I think there's lots of areas to take forward and, yeah, being able to teach people that and kind of inspire them to kind of further their research in this space is something I would like to do. So a grand plan and we're very much at the start of it, but yeah, that's the plan.

It's a good plan. And I was very pleased to read your draft of your dissertation, of your thesis, I think it was very well written. If I had the ability, I'd mark it now and I'd give you a definite pass and a very good star on it as well.

Brilliant, thank you.

Thank you for being inspired by the Archives and thank you for inspiring other people to use the Archives. I'm glad you've used it, I'm glad you've found interesting things in it, I think it's a bit of a gem and the more that we can tell people about it, the best. Thank you so much for your contribution, Sian Cleary.

Thank you.

[recording ends]