Tim Johnson

Interviewed by

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Via Zoom

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Welcome to the Archives of Information Technology where we capture the past and inspire the future. It is Tuesday, November 29th 2022 on quite a chilly day. My name's Richard Sharpe and I've been analysing, covering and part of the IT sector, starting in computing part of it, since the early 1970s. But a whole decade before me the person who's making his contribution to the Archives today, Tim Johnson – his full name is Christopher Timothy Forbes Johnson – had started that process. Tim, why so many names?

I think my parents were a bit enthusiastic. And my mother has three names. The, Forbes is a family name handed down from a supposedly distinguished ancestor, who I eventually discovered when I did genealogical stuff, the original Forbes, Daniel Forbes, got somebody, who I suspect was a maid or something like that, into trouble, or pregnant, to put it bluntly. They were both aged about 30, so I'm sure they had some idea what they were doing. And he was set up in a grocer's shop in Cheshire, but there remains in the family this feeling that the name Forbes…

Is carried on.

… was distinguished.

Well, that's good.

I was called Christopher after my father and called Timothy after Marshal Timoshenko, who at the time I was born was whopping the Germans in Russia.

Ah, I see, yes. And that was in 1942, in February 1942.

February '42, yes.

In Derby. And your father was working for Rolls-Royce as a graduate… as an engineer.

Yes, engineer. Yes.

What was he actually working on?

Well, actually, quite a lot of the time he was working on the shopfloor because graduate engineers might not have been the most urgent things they needed.

Right.

I mean he'd got a, he got a starred first, I think, in engineering and mathematics from Cambridge. And I think his dream, more or less, was to work for Rolls-Royce, which was the, like a leading technology company of the time. I mean this was on the aero engine side of Rolls-Royce, not the cars.

Right.

And yeah, but when it came down to it, it was all hands to the pumps. And I know at least for quite a lot of the time he was working on the shopfloor.

And of course Rolls-Royce was the designer of – at least, Royce was I think – the designer of, and manufacturer mostly, of the Merlin, the famous Merlin engine.

Yes, exactly. Yes.

And that was being built at Derby, I imagine?

Yes, yes, yes. Oh no, the Merlin was definitely a name to conjure with as far as my father was…

And it was presumably also being bombed, because you were born in 1942. Do you have any memory at all of the war?

Oh yes.

Tell me.

I've got quite a lot of memories of the war. Well, not a lot, but… I remember the end of the war in particular. I remember my father wrapping me in a blue blanket and taking me out and there was a bonfire in the street. I remember sitting on his knee by the bonfire and hearing what it was about. And I can remember a street party afterwards, which I remember sitting at the table, scoffing jelly, I expect. And then there was another street party and I can remember asking why is there another one. And that was for the end of the war with Japan. So I've got precocious memories, so I could go on more, but I think there's a limit to how much you want of that.

Was Derby battered by the war, by bombing?

No, not particularly. There was a hole at the bottom of the road, there was something, it must have been a fairly small hit. And even though we were, we lived on a council estate in those days, not far from Rolls-Royce itself, and you'd have expected more bombing than there was.

[00:04:50]

You went to Stanley House School in Derby, a private school.

Yes. Yeah, I think my parents were a strange mixture. They were pretty left wing, I mean they were fellow travellers, communists almost, but my father was part of, or knew a group about the, what was it, the fourth man, fifth man and so on. I mean they were all a bit older than him, but he certainly knew those people, and of course John Cornford as well, he knew. But on the other hand, they didn't seem to want to send me to the local school, they put me in this private school right across the other side of town. I used to go in, there was a girls' school nearby and there was a bus to the girls' school and I used to be put on the bus to the girls' school, looked after carefully, I'm sure, by the girls, and put off outside Stanley House, just on the other side of the road from their school.

You were a lonely boy at that school, you say?

Yes, I think so. Because of course most schoolchildren go to schools where they've got kids they know and play with in the street. There was nobody like that over there and I don't think it was a very good school, frankly. I was there…

You were there for three years.

Yeah, thereabouts.

And then you moved to the county primary school.

Yes. And that was a good school. And I think we'd moved up to Allestree by then.

Right.

Bought a house. I mean I think they bought it, put the deposit on it before the war. It took a long time to get built. And yes, and they gradually discovered that it was supposed to be a very good school, so they sent me there instead of continuing to pay. And great, yeah. I flourished there really.

You went there in 1949, just to link this up with the IT industry, that was the year that Ferranti produced the Mark 1, the first computer to be actually sold commercially, so to speak. Others had been sold of course, but built for whoever was the customer. This was built and then sold.

Yes.

Ferranti Mark 1. Not a million miles from you, in Manchester.

That's right. And in fact you've introduced probably the first important link with the computer industry in my family, because my father, I think probably in '52 or '53 – I've got the document somewhere – was commissioned by Rolls-Royce to investigate whether they should buy, not a Ferranti computer, I'm afraid it was an IBM one, and the test was, could it do Fourier transforms at least as quickly as three engineers with slide rules. And my father reported that yes, indeed it could, and faster as well and

not only could it do Fourier transforms, it could do Laplace transforms as well. So, you know, I think that's the point at which Rolls-Royce got into computers, and of course historically, Rolls was quite a leader in computing and I think there's still offshoots of Rolls on the computer side in Derby that are quite an important part of the industry.

Would that be an IBM 1400 or a 7000?

You tell me, I don't know.

Okay. Okay.

I discovered my father had, after he'd died, I discovered he'd saved a copy of the report he did about that, and I think that's in the History of Computing Library in Manchester or something, I think I gave it to them, but I made a copy, so I've got a copy of that document and it probably does say which particular machine they were looking at. I don't know, can't remember.

Do you have a digital copy of it?

Physical copy, yes. Oh yes, I'm a physical copy person I'm afraid. And yes, I mean when my father died, which was '94, he was not taking copies on computers, not home users anyway.

We'd like a copy, I think, if that's possible?

Yes. It's only the first of the various things that I would like to deposit.

[00:09:50]

That would be marvellous. Now, it's such a good school or you're such a good pupil that you passed your eleven-plus, well done.

Well, I tell you what it was about the school. Okay, they were big classes, thirty-plus. In the top class everybody passed the eleven-plus, and even by the time I left, one or two people in the second class would pass the eleven-plus, whereas up the hill in another village called Quarndon, they were lucky if one or two children got through the eleven-plus. And I think there's a huge amount of selectivity there, the middle classes were desperately keen to get their children into Allestree, so we got a, you know, certainly children with a better opportunity, if you like. Even so, it was one of the things eventually which undermined the whole idea of eleven-plus. Jack Longland, who was the Education, not Minister for Education, but the local council education person, made quite a drive of making the point that clearly the eleven-plus wasn't a particularly good filter and that something else was needed and it led the way towards comprehensive schools.

So you were able to go to Abbotsholme School in 1953. What type of school was this?

That was a private school. It had been founded in 1989 [1889] by a man called Reddie, Charles… James… can't… [Cecil] Anyway, Reddie anyway, as a reforming new generation school which was trying to get away from the sporting and imperialist ethos of the mainline public schools. So again, my left-wing parents found that acceptable. And I got a scholarship there. And so I was sent there, yes. And that was not educationally a particularly good school. It was a good place for doing your own thing and getting out in the country and the headmaster after a while was a man called Hodgkin who had been a Himalayan climber, he'd lost various fingers and toes in the process of getting frostbite. And he led climbing expeditions. I mean I went on one, the peak of them all, literally, was up the Grossglockner in Austria. That was the peak of my climbing career with Hodgkin and a few other boys from the school.

Did he have a nickname?

He probably did. But he didn't have a, I think he had various nicknames, so I don't know.

And you got your hands on the school printing press?

Oh yes, yes. I think that was a very good experience. I, yeah, I was running the school printing press so it meant typesetting and editing and proofreading and actually running the thing physically and getting a crew together. You needed two or three people to make it work at any decent speed. It was all very manual, pushing and shoving. Yeah.

What type of press was it, an Adana?

No, no, no. It was the same sort of press that Caxton used. I mean it was, you know, it had a big handle.

Oh right, lovely.

You know. But you had a, you put the paper on a platen of some kind and you put that down and in and out, it was all… I haven't even thought about it for more than sixty years, but it was quite a physical exercise.

Yes. And the wonderful mixture of smell of the paper and the ink.

Yes, there's a characteristic smell, you're quite right.

[00:14:32]

You did a whole slew of O levels of course, but then additional maths, physics, chemistry, biology, and then A levels, physics, maths and chemistry. You were supported in this by your parents.

Applied maths and pure maths, I think it probably was, yeah. Because, yeah…

And you're supported in this with your parents because your father was a graduate – was your mother a graduate?

She was actually, yes. She did English in Aberystwyth.

Right.

She used, she came from a quite a, well, in a way a very similar background to my father's, but a good deal lower down financially. And her father died about two months after she was born, almost certainly from the effects of pollution. They lived in Birmingham and he fell ill after bonfire night, and you can just imagine the bonfire pollution and straightforward central Birmingham pollution, and he died of pneumonia in his forties. And my grandmother was left with five children, of which my mother was the youngest, just a baby, and had them to bring up as a single mother. I mean relatives helped a lot and so on, but it was quite a tough time.

You have a brother as well, or had a brother who's…

Yes. Oh, he's still alive.

Right. Three years younger than you.

Yes.

What did he do or what does he do?

He did history of art. He started out, he came to London as well, LSE for a while doing anthropology, but he didn't take to that and dropped out, and a few years later he did a history of art degree in Norwich, University of East Anglia. And, you know, at that time he'd just got married, and they still live in the same flat that they got as students. And we still live in the same house that I bought with my brother before he left London. So we're not exactly migratory people.

You're a person who likes to put his roots down.

I guess so. And, no, yeah, if it's… I've been very lucky.

You missed National Service by a year or two, didn't you?

Yes, yeah.

And so you, with your A levels, you got into Imperial College in '63 to do physics. Sorry, you graduated in '63.

No, '60. I graduated in '63.

Yes. What was Imperial like in '60, because you'd been a Derbyshire boy until now, and here you were in London.

Well, I had, I mean my grandparents lived in London.

Okay.

Well, not in London, call it London these days, but in Caterham, outer, south, south-eastern, distant south-eastern commuter suburb. Well, a small town actually. And he, he worked in central London, he worked in what was then the British, well it's still the British Museum, but the bit he worked in which was the library, the printed books, split off to the British Library. So he was commuting into London every day and my granny used to take me to London to the theatre and so on. I remember her taking me to *The Mousetrap* which just had its seventieth anniversary, when it was about two years old. And so I had lots of connection with London, I liked London, I wanted to be in London. I mean that was the main reason for going there, rather than trying to go to Oxford or Cambridge. And then somebody who'd known my parents, again, as part of the left-wing networks from the thirties, turned out to be a lecturer there and came and gave a talk at school at Abbotsholme and encouraged me to go there as well, so I did.

[00:19:18]

What drew you to journalism, because when you left university you didn't carry on in academia, which you probably could have done…

Certainly not.

You didn't want to?

Well, I wasn't qualified to. I think I avoided mentioning this, but my degree from Imperial was a third.

Right.

And I think I only, I may only have got that because my one distinction was being on the *University Challenge* team.

Okay.

It might have been a bit embarrassing. Send somebody away without even a degree, after being on *University Challenge*. But yes, I scraped a degree and part of the reason was, that I, I'd always, you know, I was interested in science broadly and I think one of the things that, my father was one of the first subscribers to the *New Scientist*, so I was reading that and quite alert to the potential of science writing. And I, one thing I did do at uni was work on the university newspaper, not the Imperial College one, a paper called *Sennet*, I was doing a student journal. I think the reason, one reason for that was I was thinking about it and so I went to the office, which was in Bloomsbury in Malet Street, *Sennet* had an office in the university union and I remember going into the office and at the other end of the room were three very attractive young women talking about producing this week's paper or whatever, and I thought, okay, this is a good place to come, and did a lot of student journalism for a year or two. And from that I actually started writing paid for pieces for a long dead economics type magazine, business sort of magazine called *The Statist*, which was a rather feeble rival to *The Economist*. And they were paying me money for writing pieces about the space launches, what was going on. I think Telstar was, the very first business advancing transatlantic forecasts off satellites and so on. So I was writing about that. I turned one of my tutorials, because my tutor was a meteorologist and explained what the weather pattern in the winter of '63 – you're old enough to remember the winter of '63, yes – and, you know, why the weather pattern was so fixed and so on. So I wrote a little, you know, only a short piece about that, and got

paid for that, quite amusing. So I'd started journalism and I decided I wanted to be a science journalist, and I was pushing at an open door, frankly, by comparison with what young people have to do today to get decent jobs. And yeah, I got good advice from people like John Maddox, who was a distinguished science writer. I got, the BBC said they were going to offer me a job. I actually took one which paid more on the *Daily Telegraph*, which is not obviously quite aligned with my political views, but they were going to pay me a lot of money, partly because they had to pay me a lot of money because union agreements insisted that anybody that you employed had to count as fully experienced, so they paid me as fully experienced. And a man called Anthony Smith, who was their science correspondent, needed an assistant to fill the gap, because he was spending months in East Africa going round in balloons, flying balloons in East Africa and so on. So I was sitting there with nobody to guide me, but the phone ringing by people who wanted the *Daily Telegraph* to come to a press conference here and press conference there, and stuff. So yeah, I got, not possibly the ideal training, but certainly shown… I got good exposure.

[00:24:36]

1963 this was, you joined the Telegraph *for a year, and 1963, 'the white hot heat of technology'.*

Yeah, exactly.

The Ministry of Technology was formed, I think the first Minister was Tony Benn.

Yes. Well, I know he, he might have, he was certainly the Minister for most of the time that I was a science writer, yes, a science writer.

Right. IBM had launched in '63 the 360, the architecture that basically destroyed everybody else in the mainframe business, and also they were working with, was it American Airlines on the Sabre, the reservation system?

Yes, certainly, I mean I wrote about Sabre and I, I mean one of the most important things when I was on the *Sunday Times*, which I was from '67 to '70, was this

amazing press trip where IBM took 30 journalists, 30 European journalists zigzagging across the USA and Canada for almost three weeks. And we were shown, you know, obviously the thick of IBM's applications in that area. And there was, certainly airline reservations were part of it. I expect it was American Airlines and Sabre, but I don't actually remember for sure whether that was it.

You wrote about automation, apparently, an op-ed piece in the Telegraph.

Yes. I mean it's one of the, by the time I'd been there a few months, yeah, I had enough credibility to do that. And Anthony Smith, who was the, you know, the fulltime science correspondent, was back in the office by then and I remember him reading it and saying, yeah, it's fine but it's a bit too dense. We didn't do anything about it being a bit too dense, but I think it was quite a good comment for me to pack in too much information.

Were you warning about automation or were you saying it was an opportunity?

Oh, it was an opportunity. Opportunity, but, I mean I think in those days actually automation was more a daydream than the reality. I mean the things that were actually automated were automated to quite a limited extent. I think in the sixties if you wanted to automate something, you didn't use electronics, you used hydraulics. And that was my father's speciality in Rolls-Royce. I mean he ended up working on the jump jet, the jump jet engine and so on, and that wasn't electronically controlled, it was hydraulically controlled. But yes, you could see the electronics coming down the line. And I did this series, again, I think I was filling in for somebody who dropped out and somebody who couldn't be found and I was probably about the third or fourth option, but the new electronics, introducing the new electronics in the BBC. And that was, you know, you could really see how even for me, even at that stage you could see this was pretty elementary stuff, but yes, they were able to do these things but there was an awful long way to go, but it was being done really well, really efficiently.

And at the Telegraph *you were working in the heart of Fleet Street, in the magnificent* Telegraph *building.*

Yes, yes, yes, a magnificent office. I mean big office and most of the time it was just me and the secretary, I mean there was a fulltime secretary in the office. Quite what was she doing? I think she got to do various bits of work given from outside the, outside our little department.

[00:29:15]

So you spent a year there and then you went to be a science correspondent on this publication you've mentioned, The Statist.

Yes.

And you wrote an article about how computers worked, and that was well received.

Yeah, actually I was looking – I've got the cuttings books here – and that's something else which I'd like to see digitised and made available. Actually, that article was written when I was on the *Daily Telegraph* and I wasn't supposed to freelance so it had, Patrick Skilton was the author of that article. And that's actually my wife's name, she was born Patricia Skilton. But yeah, a lot of people told me that now they understood computers. And of course, they didn't, they just felt they understood a little bit of them and they felt much better about them as a result.

And this was the year, '64, of the development of BASIC and also a man called Gordon Moore observed something in semiconductors which we've called Moore's Law.

Yes, yes.

You were a year on The Statist*, it collapsed soon, didn't it?*

I think, I can't remember, I think it might have gone on till the early seventies or something.

Right. But you moved to Illustrated London News.

Yes. That was good fun.

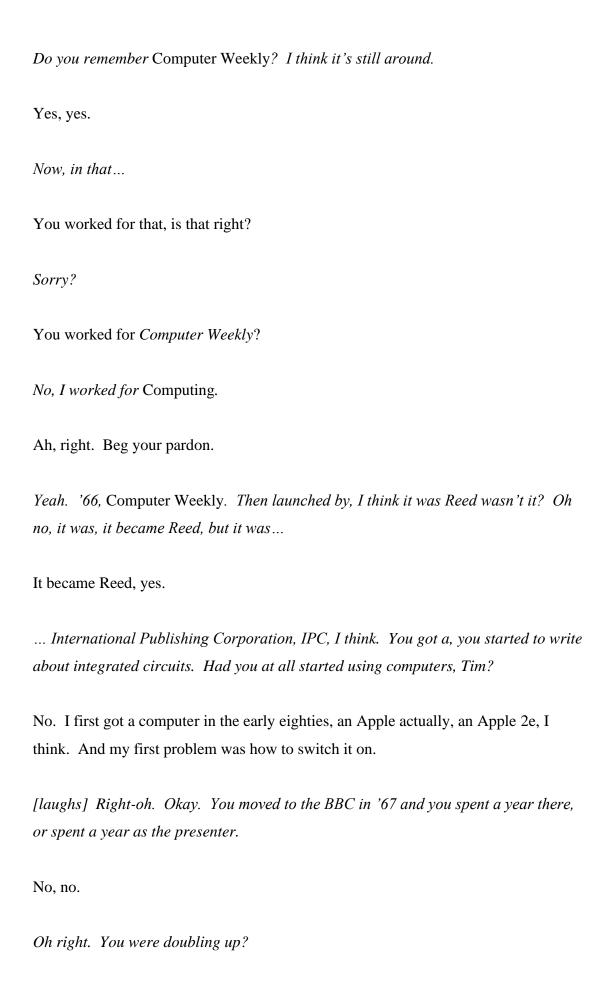*Now, can you explain that publication to people now?*

[laughs] It was a marvellously successful publication which was founded by a
newsagent from Nottingham and what he discovered, you know, what the public used
to come round asking for, is, 'Has it got news in it?' 'Are there any pictures in it?'
and 'Is it from London?' [laughs] Just put those things together and started *The
Illustrated London News*. And it was the leading pictorial magazine, that was in the
1840s, and it was certainly the leading pictorial magazine till the early 20th century,
yeah. And then it got frozen, so it had this style of the Edwardian period; lots of small
pictures and lots of captions and stuff like that all over the place, and some young man
who, you know, a young man who was in the owning company, family owned
company, and the young man and his family got the job of the editor – Howard
[Bruce] Ingram, I think his name was, or something like that – and being young he
was still editor up until about 1960 and the magazine didn't change at all. So it was
this Edwardian concoction that people used to see in dentists' waiting rooms and
places like that. But then it was bought by the Thomson organisation and their idea
was to transform it into something to compete with *Life*, *Paris Match* and things like
that. And he, they hired a man called Tim Green as editor and he had to have a
science correspondent, so he hired me, and, you know, that was doing stories about,
well there was a lot of space stuff. Maybe every other week you'd get some
spectacular photographs which were the thing to use and so on.

*Yes, great photographs. By then in 1965 there are, would you believe, 29,000
computers in the world.*

That sounds the sort of number I would have bandied about, yes.

[laughs] And in 1966 Computer Weekly *was launched.*

Oh right, yes, yes.

Do you remember Computer Weekly*? I think it's still around.*

Yes, yes.

Now, in that…

You worked for that, is that right?

Sorry?

You worked for *Computer Weekly*?

No, I worked for Computing.

Ah, right. Beg your pardon.

Yeah. '66, Computer Weekly. *Then launched by, I think it was Reed wasn't it? Oh no, it was, it became Reed, but it was…*

It became Reed, yes.

… International Publishing Corporation, IPC, I think. You got a, you started to write about integrated circuits. Had you at all started using computers, Tim?

No. I first got a computer in the early eighties, an Apple actually, an Apple 2e, I think. And my first problem was how to switch it on.

[laughs] Right-oh. Okay. You moved to the BBC in '67 and you spent a year there, or spent a year as the presenter.

No, no.

Oh right. You were doubling up?

What I did do was I presented a series, I just think just six programmes, called *The New Electronics*.

Right.

And that was very educational about – for me – about the very early days of integrated circuits, the idea that you could get more than one transistor on a chip, and all that stuff. And it was also education, specially when I compared it with the kind of trip that people like IBM and others took me on to the United States where you could see how limited and naïve British attempts were at developing the electronics industry. I mean you'd got things like Ferranti where they'd converted an old cotton mill to use for making chips. You know, I mean the whole thing has got to be absolutely sterile. I mean it was not realised quite how sterile, but everybody knew that, you know, you didn't build an old building, you were tying your hands behind your back before you started. And it's that kind of thing and this sort of, oh, you know, we're British, we can do it, you know. I mean I got this from my father as an engineer, he was, he did do a bit of work on Concorde, but you know, he had to be an enthusiast for Concorde, and I came round to the opinion that it should be cancelled, it was a waste of money. And, you know, he'd say, oh, we do these things, we're better than the Americans. And I'd been to California and I knew, no, we're not better than the Americans. The Americans eat us for breakfast. And, you know, it's that kind of head in the sand, we're British, we're better, which I think came from the, you know, we did survive and we did end up on the winning side in the Second World War, in two World Wars, so obviously we're pretty good at something.

[00:37:08]

Well, your father would have been able to tell you about radar, about the jet engine…

Yeah, he was always very, I mean he worked on Blue Streak, and they took him off when they discovered that he was a bit persona non-grata for going to America. So, anyway, that's when he started working on the jump jet, which was a much better project to be on as it turned out. And so, but yeah, he definitely had this attitude and a

sophisticated thinking man who had very forward-looking ideas in many ways, that was just a [inaudible]. It just showed you how widespread that point of view, handicap really, British adoption of technology and the fact that we did have a leadership in technology and we lost it.

You are moving quite fast from publication to publication, why?

Yes. Because I got headhunted. Because I got offered jobs. I mean, the *Telegraph* was great, but I was such a junior bod and I'd not been properly trained. I should really have gone to the, what they told you you should do to be a journalist is go to the provinces and learn shorthand and get properly trained. I'd skipped that and so I wasn't particularly, I wasn't getting it quite right. *The Statist* gave me a bit more scope, but again, it was a limited magazine. *Illustrated London News* was great. I could do all sorts of things, I was with people my own age, or not much older, you know, five years older or something, and met some long-term friends from there and everything, and that gave me an education and allowed me to write the kind of articles which *The Sunday Times* offered. I didn't go asking for any of these jobs. Well, after the *Telegraph*. And it was just the natural thing to do, I mean people did change jobs quite quickly in those days.

[00:39:24]

So you joined The Sunday Times *in 1967. ICL was then being formed, IBM was unbundling, creating an immense space for an independent software industry, UNIX was being developed and Computer Vision were coming up with some strange thing called Computer Aided Design – CAD. What was* The Sunday Times *like in '67?*

It was a very good place to work. I mean Harold Evans was the editor, he had a top-class reputation for doing revelatory, doing revelatory scoops. I mean the thalidomide scandal was one of the on-running things while I was there and, you know, one of the leading people on that was on the next desk to me, so I got that all the time. And I wasn't touching that, I mean I was technology correspondent at the *Sunday Times*, and I suppose thalidomide was a technology, but I never had anything to do with that. And in fact, a lot of what I was writing about was computing and computer

applications and, you know, chips, silicon chips and what they did. It was, I would say, about half of my output at least was electronics, digital type things.

You also apparently wrote about packet switching, how did you pick that up?

Well, from doing these, these sort of articles about online computing. I mean the very beginnings of online computing in general. And I remember I went to National Physical Laboratory, talked to Donald Davies and people, and they were talking about this thing called packet switching which, you know, some years later turned out to be something called the internet. It's not quite a straight line, but things like that. And I did, I mean I found this in looking through the, you know, this is a *Sunday Times* piece about how Britain could have a computer network.

Oh right.

Digital network, digital communications network. Of course it never did, but it would have been a better way of spending money than Concorde, or indeed the nuclear power programme. So yeah, it was, it was very open, it was an excellent place to work.

What was your best story there?

I think the one that probably [brief loss of sound] most effective was a space one, because, again, space and aviation was not me, I didn't cover that, but I did get to do a bit of, well, what does the space programme mean for transfer of technology industry, that kind of story. And so I did go to California and places and I was shown, I was in the landing module, I was at the place where they built the landing module and they put me in the training dummy, not the dummy but real thing, but still a training thing, of the landing module and I was able to see the control board, the dashboard, whatever you call it, and all the switches and so on. And there was a NASA publication which had a big diagram of it as well. And okay, so along came the moon landing and the, I think it must have been the story on the Sunday was the landing, you know, the module splashing down into the sea, and I had this diagram of what the control panel on the module and I knew what it did, and we had a whole page in *The*

Sunday Times with just the control panel and the instructions and how they landed. And that was, you know, it wasn't carefully planned or anything, it just happened. And I think that was my peak, really.

That often is the joy of journalism, isn't it?

Sorry?

That often is the joy of journalism.

Yes.

You've got something, you're not quite sure what it is, and then you go, oh, okay. And then you use it, big.

Yes. No, I mean, and then I stopped being a journalist and I've been looking at my cuttings again and thinking, maybe I shouldn't have stopped being a journalist, because I think I was quite good. And somebody, I mean they didn't say to me at the time, and somebody once asked me, why did you stop? You were a brilliant journalist. They didn't tell me that at the time.

Well, I used to read you in The Sunday Times.

Sorry?

I used to read you in The Sunday Times.

Oh right.

I used to look for your byline.

Oh really?

Oh yes. I'm sorry, Tim, but you're a hero of mine. I shouldn't really be interviewing you at all, we should have someone completely neutral interviewing you. You then went to, you made an appalling move and became editor of Engineering Now.

Do you remember that?

Well, I do remember it. What happened to it?

[00:45:32]

It had six issues, it was well received by readers. The business model didn't work and there was a recession coming on. The venture capitalists who were supposedly backing it, had managed to do it, purely on borrowed money as far as I could see, said they were stopping funding. Because it was just not reaching its advertising target. And the problem was, I mean I think it could have worked given a year's support and money in good times, but one of the problems was, yes, they were all engineers, but structural engineer is completely different from an electronic engineer and, you know, you didn't get, the readership might have been huge, but - the distribution might have been huge – but the actual reach of your ads wasn't as big as that made it seem.

Was it controlled circulation?

Hm?

Was it controlled circulation?

Controlled circulation, exactly, yeah.

Yeah. But IPC and Haymarket, they've made success of controlled circulation.

Yes, yes. Well, this was a new venture capital backed set-up and, yeah, I don't think there's anything in that space now, is there? I mean, what Haymarket did not long after that of course was start *Computing* and maybe Michael White, who used to work – did you know Michael White? Probably before your time, but yes, he must have

been, worked for *Computer Weekly*, and he set this thing up, partly by discovering he could, partly he snaffled all the engineering lists from various institutions. And yeah, maybe he should have tried launching *Computing* instead.

[laughs] Now you, 1971 you confounded Ovum.

Yes.

With David Fishlock.

Yes, yes.

He was from the Financial Times*?*

Yeah, and he stayed on the *Financial Times*. I mean he was, he was science editor of…

He was a big man, wasn't he, physically?

Not particularly tall, but in circumference, yes.

Yeah. Didn't he make a terrible mistake about nuclear power?

Didn't he what about nuclear power?

Make a terrible mistake about nuclear power?

That's a very interesting question, I mean he was a major advocate of nuclear power and on the whole I think he was quite right. And, you know, we got the, the problem with nuclear power was, on the one hand, that it took a long time to be profitable, but also very much the whole scare about nuclear explosions or accidents and so on. And actually, when you look back, the record of the nuclear power industry, in terms of accidents over – how long has it been in existence now, it's sixty years…

Yeah.

The first commercial ones opened late fifties, wasn't it?

Yeah.

And the record in practice has been very good, even with, you know, major tsunamis wiping power stations out and so on. So I think actually that we would be in a better position now if sensible policy had been followed on nuclear power. Quite what a sensible policy would have been, is another question. But I think David was right to a large extent. And another thing was that, you know, nuclear power advocates were going round proposing daft things, or proposing daft things when they hadn't got the key thing right, which was the power stations.

But the other thing, it was being written in the Financial Times *and I think people thought they were going to make money out of it.*

Erm…

Because the FT *said it was okay.*

It was a boosterish time. I mean if you read the articles I wrote in *The Sunday Times*, they were very boosterish and they were always going to be. I mean that thing, that network I showed you was going to be a network in the 1970s.

Yeah.

Yeah. It didn't happen, did it?

[00:50:45]

So where did the idea of Ovum come from?

Good question. This was, there were… Henekey's, was it, in Holborn, used to drink a glass of sherry after work and talk about these things with David Fishlock and other people, and I had the idea that actually, you could, if you did in-depth research about new developments in technology and published all the full story, pictures, reports about what was going on, who was doing what, how it worked, everything like that, then you could sell these things at a really premium price, per copy. And that was the basic idea behind a- you would do in-depth studies and sell them at a premium. And then everybody, those times, said because Xerox machines were coming in fast, they said, but yeah, but everybody would photocopy them and you wouldn't get any money. And I was saying, well, you know, businesses don't like doing things that are illegal and, you're right. And that was the nucleus of the idea, to get in-depth studies and sell them. And the first thing we did was Video Cassettes 1971, and that went pretty well, though we sold it for a cheap price. I think the thing that really showed it worked was we did stuff for the Electrical Research Association, we published stuff that the Electrical Research Association had done on microprocessors and I think four transistors on a chip was the sort of standard in the first one we did, and by the next one we did it was eight on a chip, or something. And that was a bestseller and it, I can remember having a holiday in France and feeling really quite comfortable financially, thanks to the Electrical Association's reports. But then, you know, bestsellers come and go, that's the problem.

This was 1971 when you founded it. That was when Intel put a microprocessor on a chip.

Yeah.

C, the horrible C language was developed. SAP in Germany was formed. Ethernet was being developed. The relational database was beginning to emerge and IBM was coming out with a systems network architecture, the great architecture for telecommunications built on mainframes and quite considerable complexity, although good stuff. Again, you publish packet switching networks report. That must have gone down well?

It did, yes. Yes. And that was great to do actually as well and I think that's one of the more important ones that I did.

So you didn't write them, Tim?

Sorry?

If you didn't write them, and the ERA didn't write them, who wrote them?

Well, I mean I wrote packet switching. The ERA wrote the microprocessor ones. We published some by a man called Michael Tobias – Martin Tobias, rather - who is the real expert on the liquid crystal displays and things like that. And so he produced a beautiful book, actually. If anybody's got a copy of it, it ought to be quite valuable now as a physical object, because it's full of his beautifully neat drawings. And, you know, he'd done it and he came to us and we paid him a royalty and he did quite well out of it and we did quite well out of it. So there were opportunities like that.

[00:55:14]

What was the competition?

I think the competition was the big consultancy firms, really.

Was the?

Big consultancy firms.

Okay.

Or would-be big consultancy firms. You know, they would do stuff for a thousand pounds, I mean we were doing stuff for maybe 250 or 200. And, you know, they had a lot of clout in terms of access to top people and things like that.

One of the models that was developing at the time, Infotech was a state of the art series, they did conferences beside it. Did you think of conferences as well?

Not really, because it's not, you know, I'm not a particularly social person and I'm not particularly a detailed organisation person and, you know, the whole idea of conferences, organising conferences brings me out in a rash, really. Not for me.

Typical journalist.

Typical journalist. [laughs]

You did that for four years, why did you stop?

I was getting tired. I'd been through quite a bad patch. I mean I think I, I get times when I get depressed and nothing seems to happen and I can't do anything. And I managed to recover that with doing the packet switching thing and also doing a report for the *Financial Times* on Teletext, which they actually paid me a flat fee for. So that kept me going for a while. And I knew Logica quite well, I'd written about launch, I knew… forgotten his name now. Who's the man who started Logica?

Which one?

There was Philip Hughes and Len Taylor. I knew Philip Hughes, writing about him in *The Sunday Times*.

A very charismatic character.

Yes, it was.

Pip Hughes.

Yeah. Is he on the list of interviewees?

He has been interviewed. We have him in video.

Oh right.

Full colour. He was one of the first.

Oh good.

We have now over 200. So in '75 you joined Logica as a consultant.

Yes.

[00:58:00]

What was Logica thinking about, they were going to become a consultancy?

Well, they were. I mean they had a department, run by a man called David Sayers, which was called Consulting, I think. And it did projects. I mean when I was there, there was a young man called Ron Sasson who did a project which was about public lending libraries. And he, I can't remember the two women novelists, I think, or writers who were very keen on public lending rights and they led the authors' organisation or something, campaigning to get this done. And they were extremely fond of Ron who was quite a charismatic man. And yeah, so it was doing that kind of thing. And Geoff Eagland who is still a close friend and colleague, I walked into Logica and the first thing I heard was Geoff Eagland on the phone, on a project for the European Commission, about using satellites for data communications. The project being to show that satellites would be a good route for data communications. And so there were all kinds of projects like that around. And one of the things that they were finding quite a laborious thing to do, they were building all these networks around the world, I mean they got the contract for the SWIFTNet, for example, that was absolutely crucial for Logica. And they kept on having, finding it very difficult to get all the details they needed about how much telecommunications cost in different countries and, you know, particularly what leased circuits cost, to some extent it was almost secretive. And my first job was to see if I could first of all find customers to pay for, you know, there was a control group of customers, (a) for a study on tariffs

for all the different communication services across all the countries of Western Europe. And that's what I spent 1976 doing, and it was much later and overrun of course, but of course it was, but it was very well regarded at the time, I mean it was fairly definitive compilation of all the tariffs of the, I think, 17 countries. And people from BT told me afterwards that they used that as their source for what the tariffs were for the BT documentation. So that, I did that. And then after that, we got this invitation to attend a [incomp] Data Foundation, which was a club of PTTs, as they used to be called, and they wanted a study of data communications across the same footprint, really. And I think it went through various iterations and I remember we went to – I was part of the team that did it and in fact I developed the methodology for how we would do it – and we went to Spain, to Madrid in the Telefonica building, which is a bit of a holy place for leftwingers in a way, because it's where people like Hemingway and so on- it's a skyscraper…

Right.

… the only skyscraper in Madrid, obviously, in the 1930s, and they sat in the upper storeys and they could see the invading, or the besieging army, Franco's besieging army trying to get into Madrid and everything and they had all the teletexts just by them so they were more or less typing the story straight into the communications network. Anyway, we had a meeting in Telefonica, my colleagues were completely unimpressed, and they asked us, the question was, how would your methodology forecast the volume of data traffic between Belgium – not Belgium – Berlin and Munich? And we had the answer to it and I was told afterwards, we were the only bidder which had an answer. And the reason was, basically, I'd developed the methodology which was application based, so from the book I'd written as a result of my time in *The Sunday Times* or network communities, I knew what the applications were of online computing in some detail and we said, well, we know how many airline things there will be, how many bank things there will be, and so on, and we'll put them up as, you know, we will estimate, you know, we had a proper methodology for doing it.

So you could model the traffic, basically?

Exactly yes, yes. And the reasons for the traffic.

Yes, yeah. What did you think of Minitel from France?

Well, that was sometime later, wasn't it?

Yes, '80.

It was, I mean there was Prestel in the UK of course.

Yeah.

Yeah, Minitel was better. And yeah, these things were the forerunners of the internet.
And yes, I should have paid them more attention really than I did.

[01:04:16]

*Towards the end of your period at Logica we have the launch by Japan of the Fifth
Generation Project 1981.*

Yes.

*Now, I have a particular view of that, which basically was, it' a massive conspiracy
by the Americans to make the Japanese spend a lot of money on stuff that won't work.
But what did you think of it?*

I, you're quite right, it was quite a pivotal thing, actually. Because I left, having been
sort of rated A after the Eurodata stuff, I got chilled out at Logica, basically. So I left
and did a report about high definition television, and then this stuff from Japan was
coming along and exactly, I was going to write something about, well, the language
was Prolog and what, if you like, the Americans had sold the Japanese on, was this
language Prolog and it wasn't going to be terribly important. And so I thought if this
is the big topic I'll do a report about Prolog. And I went to a conference in Paris
about that sort of thing, and after a day or two I realised that Prolog was not… was an

academic twiddle, almost. And really, what the real thing to do, the real topic should be expert systems. So the title of the report changed to Expert Systems, and that was a bestseller. It did very well in America. Spent a lot of time shuttling about in America, talking to people there. I can't remember what the question was now. You set me off on a trail and…

The Fifth Generation from Japan.

About Japanese and Prolog, wasn't it, yes.

Yes. Yeah, yeah.

And I can remember talking to Foreign Office people in Japan and they were being terribly impressed about the Japanese and what their attitude was and everything, and I was saying, actually, what the Japanese plan to do in two years, the Californians have already done in about two months. And, you know, I think that was the beginning of Japan losing its grip as the sort of leader of technology and stuff. I mean Japan's almost a backwater these days, isn't it?

Mm. Also we've got in this period, 1982 to 1990, you reform Ovum.

Eighty… yeah, yes that's right. Okay, so to start with I was on my own. Well, no, I had part-time help from Denise Him actually, who you might… she used to work, she went on to work for the British Computer Society. And that was quite successful, I mean the Expert System thing was a bestseller, as I say. And what was happening in Logica was that people were getting a bit fed up. Ron Sasson, who I mentioned, who's a brilliant character, and two or three of his friends, or my friends too, wanted to have the idea of leaving Logica and starting on their own. And then it came to them, well, Tim's already doing that, maybe we can do it with him. And we made an agreement which they had to buy into, at a fairly modest price, but you know, enough to be satisfactory from my point of view. And they, I think the key thing was that I was happy to part with having a majority of the company. I mean, you know, I wouldn't be controlling the company. And that was good, that was one of the better decisions I ever made because they went on and made a marvellous job of it.

This is twice that you've been managing director.

What?

This is twice that you have been managing director. What is the Tim Johnson method of management?

Pretty hopeless, actually. [laughs] I'm not a very good manager. My son is much better. He's doing well with yet another company. But it's to follow my nose, I suppose, almost. I'm quite good at process, I'm quite good at setting up processes that people follow.

Can you fire people?

I've fired people on occasions. In the *Engineering Now* days I remember taking somebody out and firing them after a couple of days. I haven't had many people to fire on the whole. No, I've never been responsible for many people.

[01:09:55]

So it lasted eight years, Ovum two.

Well…

Your relationship with it.

My period with, I suppose Ovum 2 would really be '82 to '85, when Ron and David and Richard Kee and Julian Hewett joined, that would be Ovum 3 in any reasonable assessment. And no, I was still there as a consultant and director until 1990 and then it was clear that I was not actually in practice contributing all that much and I decided to slip away before I was pushed.

*In 1963 we've got the Ministry of Technology and in the late eighties and early
nineties we've got the National Enterprise Board and things like Instack and Inmos,
what was your view of them?*

I didn't have one, I wasn't really active on those things at that time, frankly.

You went on to launch, in 1991, Look Multimedia.

Yes.

This was about making films and videos mostly, was it?

Well, that's what we actually did. I mean in theory it was about all the new media
coming along. And I got one of these ideas which is in some ways the worst sort of
idea, which is one that almost works. You know, because you keep going. And yeah,
it was that we would, again, it was a version of the doing something in-depth which
would meet business needs. And this time it was in-depth with video about computer,
new technology in computers, particularly it turned out to be software technology,
mostly. We did one on the internet right at the end which was actually quite good and
got an award. But, yeah, and actually again, from the archive point of view, there's a
lot of tape of good quality filming of computer people talking about what they do in
quite nitty-gritty ways. So there's a lot of archive potential in that.

*Did you have any emotional attachment to UK technology rather like your father, or
how do you detach yourself from it, because this is a time of considerable confusion
and also, in many cases collapse.*

Erm… yes, I mean it's interesting to see how, as you say, the British technology
industry just, well, just sold out basically, they got a lot of money and they retired. Or
yes, or dabbled in building archives. Yeah, I was almost semi-retired myself in the
nineties. I was doing something which I didn't, you know, didn't take an awful lot of
my time really, because the man called Keith Hocking who was selling the video
contracts, he did a very good job, and, you know, I didn't make the films, I was
responsible, I was in charge of the scripts and the content of it, overall strategy and

stuff, but I spent a lot of time walking and went on some quite long holidays, you know, it was a different sort of time for me. I wasn't really engaged with it.

[01:14:14]

Right. A lot of people were making an awful lot of money towards Y2K, what was your impression of Y2K?

Well, I suppose we made a little bit of money out of it. I, jump to the end really, because of what Ovum and – because I was doing quite a lot of consultancy for Ovum – and the Y2K thing came up and a man called David Bradshaw who did the real work – he's dead, unfortunately – but we got a contract from the Cabinet Office, which was to survey what was happening before and then do a - and be available on the night, actually on call, literally, in case at midnight things fell over - and then do a survey afterwards about what had happened. And you remember that there was a lot of fuss and people saying oh, it's all just been got up, it's unnecessary, we shouldn't be bothered with this. That after the, after midnight 2000 everybody we surveyed and also other anecdotal evidence was that almost everybody had had something, that if they hadn't been prepared would have caused them a big problem.

Right.

You know, a big bank saying, well, we would have had a serious problem with people's payrolls if we hadn't been… I think they did have a problem, but because they were looking for problems and fixes, they fixed it. And, you know, I think the whole Y2K thing was much more worthwhile than people predicted.

It was worthwhile?

Yes, yes. Yes, it was.

Okay. The longer I spend on this earth the more I get a sense of déja-vu. May I show you a headline, which you might be able to read, which is…

Oh right, yes.

... yesterday's Times. *UK falling behind on microchips, you know, says Tim Johnson in 1967, or something like that. Will we ever, is it possible for the UK to catch up on this? Why is it in such a dire turn, apart from the fact that people sell out and go and have racehorses and so on?*

Well, I think the selling out is a very big part of it and the extremely efficient financial services industry. You know, it's very good at turning hot air into hot cash. And that, you know, why work when you can close a deal. I think it's a pretty fundamental problem, actually. I think it goes back quite a long way, certainly at least to the sixties. Which is a failure to develop an industrial policy. We don't know what we want, we don't know how we're going to get it, lots of people say it's not worth, lots of people say it's totally contrary to the Liz Truss view of the world and, you know, we just get all tangled up in it and we need to sort it out. If we're going to have any claim to leadership in that kind of area in future, I think we need to sort ourselves out pretty radically and it's not happening at the moment, is it?

No, not as far as I can see. Yeah, 'Fears raised over lack of government strategy' is the minor strapline underneath that story.

Oh right.

By Katie Prescott. Well, maybe in 30 years' time I'll be interviewing...

What, what journal's that, what paper's that in?

It is The Times, *or as they would call it in America,* The London Times. The Times of London *yesterday, page 39, their main business story, plus a piece of analysis. What's the biggest mistakes you've made in your life, Tim? Not in your private life, in your professional life?*

[01:19:09]

I, certainly a big mistake was missing the internet. There I was at the end of the eighties, as you say, I was, you know, I was telling you I was a bit of a loose end and so on, and, you know, I didn't, if I had applied my earlier methodology and said, looked round for what was happening that was important, and with hindsight I remember having a conversation with people at Imperial College who told me, well actually, browsers are really interesting at the moment. And I said, browsers, what are browsers?   And if I'd looked into that, what they meant and what was behind it, then I would have started to plug into the early upwelling of the internet and what the man at CERN, Tim whatever, was doing, it would have been great. Instead of going off and making videos, which was also great and I got a lot from it, to have really latched on to the pre-history of the internet, the modern internet at that time and really been going along with it instead of catching up with it rather late.

And what do you learn from that?

Don't rush to conclusions, do your homework, get stuck in, which is not something I'm… I'm very quick at understanding things, but sometimes I'm very quick and I've got it wrong. Or sometimes I'm very quick and the first idea I thought of, if I'd actually thought a bit longer, it would have been a better idea two or three yards down the line, you know?

Do you think of yourself as a journalist, a researcher, a publisher? Give me one word that describes the professional life of Tim Johnson.

I think researcher covers it. I mean, you know, I mean it's a bit like journalism, writing these reports and so on, but it's finding out about things in a broader sense, in a way, than just journalism. One of the problems with journalism is you're always trying to make a good story, so you make it more black and white, you may have to kowtow to what various people think you should be writing. You're not actually at the academic end of the thing which is, you know, what is the actual verifiable situation. And I'm, that's, I think that's one major reason why I'd stopped being a

journalist because I really did want to write things which were the whole truth, rather than just a short excerpt.

[01:22:27]

And would you advise anybody now to become a researcher, looking at the whole IT sector?

Yes, yes, definitely. I mean you might have to specialise a bit, but you can't specialise too much because the whole IT sector, you know, it is a unity, it does, what happens over one side affects what happens on the other.

And if they did specialise, what should they definitely look at today, something that you think is really going to be big in the future?

I think the future, I mean I think if you look at the long future – I mean we're talking decades – there is going to be an inflection in the world. World population is supposedly going to start falling. I think that quite genuinely people will start to say, hang on a minute, all this economic growth is not doing me any good, they're just trying to force me to buy more and more stupid things. I've got things, I mean, you know, elderly person, I've got everything I need and I'm quite content, but on the other hand, there are areas such as housing which is desperately short of what people need, in this country. So, it's about that inflection, I think, that how is society going to change to accept not being, to go ex-growth and the growth being of a different kind and more humanistic, rather than a profit growth or a volume growth, those things. And how you convert that into- I don't want to go off in a Gwyneth Paltrow direction or something, but… I'm an old man, I don't really know what somebody who's the age of my grandson would see. I must ask him.

Asking questions is something you've done all your life and it's been a pleasure to ask you lots of questions today, Tim Johnson, thank you very much for your contribution to the Archives.

Okay. You're very welcome.

[end of recording]