The Past and Future of Australian Innovations in Information and Communication Technology (ICT)

Oral History Interview

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Wayne Fitzsimmons

Interviewed by:

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Project Summary

This interview is part of a series of oral history interviews undertaken by the Pearcey Foundation and the University of Sydney as part of the project 'The Past and Future of Australian Innovations in Information and Communication Technology (ICT)'. The series interviewed recipients admitted into the Pearcey Hall of Fame from 2003 to 2020. The hall of fame recognizes outstanding life-time contribution to ICT in Australia in business, research and government. Each oral history captures a short biography of individuals who made an outstanding contribution to ICT in Australia. They also collect insights on aspects that had a lasting effect on ICT innovations in Australia, positive as well as negative from approximately the 1960s to the 2010s. Interviews lasted about 60-90 minutes and were conducted by Sebastian Boell, Graeme Philipson, Peter Thorne, Kai Riemer, Sandra Peter and Belinda Wang. The complete set of interviews in this series is archived by the Pearcey Foundation.

Key Points Covered in this Oral History

1. The contribution of universities, in providing the intellectual underpinnings to cope with the ICT revolution, should be more widely recognised and acknowledged.

2. The insufficient funding for basic research and the mismatch between the expectation and progression of academics and what industry needs to hinder the linkage between industry with university and education.

3. IT industry has a fragmented landscape due to it having diffused into so many industries for application, therefore it is difficult for the government to facilitate the industrial understanding and get people to work together. The industry also lacks good leaders to bring regional and sector (such as the AI sector and the IoT sector, etc) collaboration together for a clear long-term industrial blueprint.

4. Australians, particularly the governments, lack self-belief, which hindered the growth of local companies by government purchasing back in the 1970s; however, this culture has now shifted.

Biography

Wayne Fitzsimmons OAM

Chairman of Pearcey Foundation
Judge of Clunies Ross Awards Selection Committee of Australian Academy of Technological Sciences and Engineering
Founder and Director of M Group

Entrepreneur, ACS Honorary Fellow, Investor

Wayne Fitzsimmons is an experienced executive who has worked extensively in the US, UK, and in his home country of Australia. He was instrumental in the setting up of OpenDirectory Pty Ltd, having previously been Managing Director of Datacraft Technologies from which the Directory technology emerged. OpenDirectory emerged as the global leader in large-scale distributed directory systems and was acquired in October 1998 by Platinum Technology, who in turn was acquired by Computer Associates International in May 1999. Before joining Datacraft in December 1993, Mr. Fitzsimmons spent 14 years in senior positions in the USA and Europe. This included being Vice President, International, at Banyan Systems Inc., New England (1990-94) and Vice President, Americas Far East, for Data General Corporation, Massachusetts (1983-90). He is a director of several small privately-owned early stage companies including iPro Pty Ltd. and Cohda Wireless Pty Ltd.

Wayne is a Fellow of the Institution of Engineers, Australia as well as being a Fellow of the Australian Computer Society. He holds a Bachelor's Degree in Electrical Engineering from the University of Queensland (1964). Wayne has worked tirelessly in his role as Chairman of the Pearcey Foundation. He has engendered cooperation across state and organisational borders and is forever overcoming hurdles to help organisations work together to advance Australia's ICT capabilities. Wayne is highly respected across the ICT industry and active in many other parts of the ICT Industry. This includes being on the board of many early-stage companies, mentoring entrepreneurs, participating in advisory panels and being a judge for several ICT award committees.

Wayne was awarded the Medal of the Order of Australia (OAM) in the 2018 Queen's Birthday Honours.

Interview Transcript

Date of interview: Wednesday 08 June 2022

Let's start by you briefly summarizing your biography, where did you grow up?

I grew up in Brisbane in Queensland, and I'm one of those baby boomers. I was born just at the end of the Second World War and my parents were quite poor.

What were your parents doing?

Well, my dad, he was a signwriter and then he went to the war, and he had a very poor education. He had to leave school when he was 11 because his father died or whatever and he had to support the other kids, there were seven brothers and he had to support five of them. The eldest one had gone off to school, he was the favoured son. But dad, he didn't have any trades and he hadn't even done high school and so he became a signwriter and he was probably pretty good at it. But he was an avid reader and he loved music and opera and read widely, he could read very well. So he entered the war and he ended up in the radar side of things. He was away for five years and the whole technical side came because, he didn't have the maths, but he understood radar and all that sort of stuff. And this was the great thing in Australia -he got an apprenticeship after the Second World War and became a sort of fitter and turner and then he got management roles in metal fabrication and stuff like that. I had two brothers and we all went to high school, the best schools they could afford, mum and dad sacrificed everything. Then my middle brother he went on to become an anaesthetist, he was a brilliant academic and then I did okay and did engineering, and then left home and said goodbye. So, it was middle-class background but my parents just had high ambitions for their kids and so we became, we did very well, had high aspirations about we could make it, yeah, and we did.

So do you think that your dad working on radar and so on had influence on you being interested in engineering and technology?

Not particularly, and my brother's friends were doing engineering, they were seven, eight years older than me and they'd been to engineering school at University of Queensland, my cousin who was my brother's age, my eldest brother who has passed on and another chap down here. And then I met my first wife, I was at high school and she was (nothing particular, but) also a sailor like her dad; he was the Commodore of the Yacht Club, but he was an electronics engineer and worked on radar in the Second World War and he installed many of the AM radio stations (transmitters) in SE Queensland. I was in awe about all this stuff, so there was a number of influences, but it was probably external, but one important one was my brother did medicine. I was not going to do medicine. You understand that?

Yeah, you wanted to differentiate yourself.

Absolutely, yeah.

And so can you quickly tell me, you went to University of Queensland?

Yeah.

And you studied…?

Electrical engineering, communications, yeah.

But at that time there were no computers involved or was there…?

Oh yeah, yeah, we had a computer at university, it was a GE-225, a General Electric from the US, we programmed in WIZ. It arrived there in my third year, that was a big thing. But then when I got into the government and came down here to the Aeronautical Research Labs in my vacations, in the second year and third year, they had a CDC 3600, and so that was FORTRAN with cards and that. And that was okay, I did a bit of that, but it really didn't interest me.

So that was the first time you were exposed to computers but it was not really of interest to you?

No, it didn't grab me, programming didn't… the electronics grabbed me, yeah, I was more interested in communications and all that stuff, not the software so much. I mean it switched me on.

You later went on and did a postgraduate degree but it was after you had considerable work experience…

You wouldn't call it a postgrad degree, I went to a four-month course at Harvard Business School when I was living in the UK, and it was a real eyeopener, it was a great aid to my career, especially while I was in the US. I did some very interesting things with (international) trade, I had always been interested in the industry, both here, before I left, and subsequently (I'm still involved of course). And I got involved with the American Electronics Association, and I led a US trade delegation to Brazil about their theft of IP and I don't know how... Anyway, I tried very hard to talk common sense into them and just paying some royalties and acknowledging and that. But they just… and ended up I used the Harvard Business School facilities. I went down to see the professors there, whom I knew, and said look, we've got this trade problem. So in the end I had a delegation of about 12 Brazilians came up and spent the weekend at Harvard Business School, and one thing and another, US trade representative, Ronald Reagan was the President, I didn't think they knew about it, but of course they did. It was a real setup, this woman Carla Hills, the Deputy US Trade Representative (at the time and became US Trade Rep under George Bush Snr in 1989), she was in the Cabinet. she called me Friday afternoon and said: "Oh, Mr Fitzsimmons, I'm Karla something or other," (I'm in Boston, she's in Washington). She said: "I understand you've got a trade delegation of Brazilians on Friday?" She said: "I'd like you to call it off." I said: "Well, I can't, they're already here." For some reason I said: "Well, would you like to come?" And she said: "Yes." Great, so… but they never introduced themselves, they sat up the back of the room, I knew, I said: "I don't think it's going to go anywhere." And in the end, it didn't, after about three hours they left. I mean it was terrible, and it was the difference between Australia and Brazil. Brazil is a big country but it's corrupt top to bottom, and it's not that we don't have corruption here, but we can open any door in the US, because we are westerners and we trade fairly. So that Sunday night there was a decision taken, and I guess it was this lady, on Monday morning, 7am (I'm having breakfast with the family and going off to work and they're going off to high school). The news that President Reagan announced this morning that $1 billion worth of Brazilian orange juice imports will be disallowed immediately. $1 billion… right… so that was quite an eyeopener. And the Harvard Business School they were so thrilled, they were right in the middle of all this, see, they could talk about it. Anyway, so that was interesting, but it was a great door opener having been to Harvard. It's a big deal in the US.

But let's go back to your time after you graduated from Queensland University. So what was your first job that you did?

Well, typical bureaucracy, I was working down at Aeronautical Research Labs as a scientist, and I said but I'm an engineer, I don't want to be a scientist. I did some interesting work on missiles, the Ikara missile … it had a torpedo attached and would fly off and drop a torpedo and stuff, and I did some work on that, but that was all sort of scientific based. Anyway, I agitated a bit, and I went down to see the head of the research labs, and it's interesting, the

guy I was working with, I mean obviously a very senior guy, he invented the black box while I was there, you know the black box recorders?

Yeah.

Australia did that but never patented it, anyway, they said would you like to go to… the guy, I've forgotten his name, Tom Lawrence, and he said: so I understand you want to be an engineer? He said: "You're in the wrong place. How would you like to go to Salisbury South Australia to Weapons Research (It's DSTO now."), I said: well that sounds great fun. He phones: "Hey Doc," Doc Woods was the head of WRE… "Got this young guy here Wayne, he'd like to come over and be an engineer, you got a job?" And he said "Yeah," "Right, that's it." So off we go to Adelaide. I mean this is the government, and so they transferred me and I went over and it was great work. I worked on underwater detection systems, we were looking at signals 57 dB below sea noise level, and we had the 64-element array, it was oh, fantastic stuff. But it was the government, and no matter how hard you worked, grade 1, grade 2. So I said screw that, and then I met George, and he was selling semiconductors and I was buying them, and he said how would you like to take over from me, and I said that sounds pretty good, so I became a salesman at Fairchild.

So what motivation there was that rigid promotion criteria in the government didn't allow you to really progress in your career?

Well what really sort of brought it into focus for me was I'd work till 7 o'clock at night and then go home, and then I'd get to, 7:40 was the clock in time, you had to clock in, and I'm a professional engineer, and I get there at 7:41 and the guy would have the big red line and he said: "You'll be docked for that". What? I mean he said: "Nothing to do with me, them's the rules, that's it." So I thought right, I mean I have to get a job where you don't have this sort of arbitrary rubbish. So then George offered and so I got this job selling chips, exactly what George was doing, and I was operating out of my house. I had a government-subsidised house in Salisbury then I went right up market to a government-funded facility in Elizabeth Park. If you know Adelaide that Playford put all these, he created Elizabeth and General Motors put the big manufacturing plant there for the cars, right. This was the 60s, this was a big deal, and so I got a three-bedroom brick veneer house, brand new, air conditioning, 30 miles north of Adelaide for $8 a week, and I thought it was great. And then I had two kids, and we had three bedrooms, and I converted one of the bedrooms to my office and I turned over half a million dollars in the first year. So, I was good at it, it's a personality driven thing and you have to know your stuff, right, you have to be technical. I could: "Oh: you've got that problem." And then suggest: "You put one of those in there and it'll work," And it did, so it was a very technical sell but personal, so I honed my sales skills, yeah, I was a natural at it.

So that's what you did with Fairchild, selling semiconductors, but then Fairchild was also selling Data General computers?

Yes, George alluded to that yesterday, he and the CEO John Baldwin (who recently passed away) went over and did a deal with Data General to represent them in Australia, and George asked me to come back and start selling them. I was the sales guy for these computers, and I didn't know anything about them, but I was quite successful.

So can you give some examples of where you sold the…?

Yeah, right, Monash University Electrical Engineering Department, and I'm still friends with the Professor Bill Brown who he bought one of my first sales, and they put it into the department. ANU. Bill Caelli, did you interview Bill Caelli?

Yeah.

Well Bill and another guy there were doing their postdocs. I've forgotten the other guy's name, he became a Professor down here at Monash later, Ray Jarvis, that's right, Ray Jarvis, and they were working on secret communications stuff with DARPA, and that was the early internet days, and they needed a computer so they could do all the encryption and everything else, and that's how I met Bill, he was a very young man and Ray, so they were some of the early… AMDEL (Aust Mineral Develop Labs) in Adelaide, there was a minerals researching group, yeah.

But eventually you became a full-time employee of Data General…

Well what happened is that Fairchild were doing well with the semiconductors but it was clear that that was a sort of commodity product. And the Data General thing was going very well, and the US people (from DG) came out and that's where I met my boss and he looked around, and when they left they called me up and said oh but I just said to the CEO, who died recently, I was off to start DG in Australia; he and I remained very good friends. Because he was very proud of the fact that one of his sales guys made it, so to speak. I did the deal and negotiated we'd buy all the stock at this price, whatever, and take all the maintenance contracts and remove all their legal responsibilities, there were no liabilities, whatever, there wasn't any goodwill paid but I took the staff, some of their staff so that they walked away, they weren't out of pocket. And so then I started here I opened the doors on January 1, '73, But I'd lost my first wife in '72, February, she was killed in a car accident in the Yarra Valley, and so, I thought we should start our own subsidiary…And so it was a bit of a bitter parting and it was a very traumatic time, personally.

So you wanted to get away from Adelaide as well?

No, we'd moved over in '69, so I was, yeah… and George, when he set up the systems group got me to come over and be the sales guy, that was April '69, so yeah. So then, we started Data General and I had an office down in St Kilda, and then I met my second wife after that in 1974. Pretty soon we set up an office in North Sydney and it started to happen. So that, we started to expand quite quickly. But one of the most interesting, and this is sort of a highlight in my career, in New Zealand, New Zealand has always been early adopters and adapters, and the banks got together, the four banks, the same as in Australia, they were all New Zealand banks then, I guess, but they got together and formed this group called Databank, and it was Gordon Hogg, he started it and put the deal together, they would do all the data processing through this group, which was owned by the banks, and they were very proud to be the first group in the world that could do overnight cheque clearance. This is early 70s, and Gordon came to us and said: can we link up all these 360s, 370s, so we don't have to send vans, we can do the data transmission to do the reconciliations? And we said: Yes. So, we got this contract worth about three or four million New Zealand. And IBM said well, you've got to connect it to our channel, we're not giving them the circuit diagrams, so that was in New Zealand. But the reason we took it on was because IBM had lost its big anti-trust case in the US, and they were forced to disclose their circuit diagrams. I don't know whether that's come up. I've forgotten, it was the market dominance stuff, and so…

I'm aware of the anti-trust, they had to split the software from the hardware but they had to disclose the circuits, that was that…

So we got the circuit diagrams and no cooperation from IBM, but we got it working, for sure. And two things happened. One, this is '74/75, Piggy Muldoon was the Prime Minister of New Zealand and he was off the wall. Anyway, New Zealand currency was flaky, and there were no currency markets that you could bet on. So we suggested to them that maybe they could pay some insurance premiums, see if we could lay off the bet in case there was a currency decline in the New Zealand dollar. Which was on the cards, because Muldoon, he set the interest rates himself, right, it was just stupid. So we went down to, my guys in the US, they went to New York, and they were able to bet, lay off the bets on the New Zealand dollar, and the CEO down here, Gordon Hogg, he thought that was a pretty good idea. So halfway through the project the New Zealand currency devalued by 40 percent… Oh, now I made Gordon a hero, right, and I also made myself a hero because they'd never done it at Data General. And my career got a bit of a kick start, because it was a very comprehensive, complicated project. Nobody had ever linked up IBM computers like that, ever, anywhere in the world; but they weren't very high-speed lines, 48 KB perhaps. Anyway, it all worked and so we got away to a flying start in New Zealand, and of course that helped back here. So that was one thing. The other thing was BHP. So Digital and IBM dominated there, and the BHP headquarters were in Melbourne (where I had established DG headquarters in Australia), and there was a chap called Dr Brian Garner, he's an English fellow, chemistry scientist, he'd come out and he was running data processing. I used to call him, he'd say: "Oh Wayne, have a nice day." Anyway, he called me up one day and he said: "Wayne, you've got a minute?" I thought yeah, right, catch the tram down. He said: "Would you put a computer in Whyalla?" I said: "Sure." "Kwinana?" "Yeah". "The Pilbara?" "Yeah, yeah, got no problems." "Koolan Island I said; 'Where's Koolan Island?" He said: "In the Kimberley Coast" I said: "Fine." "Groot Island?" "Yeah, absolutely, Groot Island". He went: "You've got the deal." I said; "Well, why?" He said well, I've had two of your competitors in here and they told me they had to check with their boss in the US, you didn't hesitate, you've got the deal. He said why didn't you hesitate? And I said: "I'm a salesman, you want to buy, I want to sell". And so that was like a million dollars, first order. And then I think we outbid Digital, we never got into Wollongong, but all through Newcastle we did all the Australian Iron Steel and Commonwealth Steel and it was remarkable. It got to the point where my boss or the President of Data General would come out, we'd meet two or three members of the Board of BHP, right, because this was a revolution, this was the first time putting computers out in the operations, not doing the payroll or whatever, but out in the operations. We put stuff up in the Pilbara, Port Hedland. This was quite remarkable, we had to build special cages with big filters because the iron ore dust would get through and that would build up on the equipment and would overheat, so we had to have all this sort of stuff. We had this remarkable situation at Kwinana, the computers started to blow up, well the tape drive specifically. So in those days we rented this thing that would take a look and record what the voltages were doing on the power supplies. And it turns out at 4 o'clock every day there was this big spike came down the line because they switched off the rolling mills, so that means the motors became generators and had this huge spike back down the line and blew up the semiconductor components. So we put diodes and everything on and fixed it up. But the head of Kwinana he was furious: "What are you doing, it's our equipment?" He didn't know, nobody knew, that that was what happened. Pioneering stuff I suppose, but certainly those sort of things in a young guy's career, I couldn't believe it.

Can you maybe, I mean this is a great story about how to find a bug in a system that's actually voltage transmission because of the huge power supply, but can you tell, you said like it was the first time the computers were put into operations rather than just administrative, clerical work?

Yes, well it wasn't the first, but this was BHP deploying computers to run their field operations, yeah.

Were you aware of what they were using the computers for, and can you give some examples?

Oh yeah. I can't. It was measuring, yeah, it wasn't all that automated, but they were recording stuff and data input up at how much stuff is going on and mixtures onto the ships for the iron ore and all that sort of stuff. But Kwinana was monitoring the steel mills. How much stuff is coming out, how much is going in? And it was a project, well material flow, I suppose. Then the oil and gas: when Woodside came on, they used our computers for all their admin as well, they had big computers in Perth and they had them up in the Pilbara, and at Koolan Island - it's no longer used. That must have been used for the recording of how much has been put onto ships and when and how: just all the basic stuff that they used paperwork for, they could now automate it.

And were these computers then linked, similar to what you did in New Zealand, or were they single standing operations?

No, not at that point, they must have… they would have been consolidated in some reports but no, it wasn't real time back to the headquarters, that took some…what happened in the Pilbara, you're lucky if you got your telephone line right…

So it was more likely that they wrote data on the tape and then brought the tape once a month and did some batch processing.

Yeah, yeah. But there weren't, tapes weren't… we had discs, removable discs, I think. We used to have these "washing machines", they were huge at the time. but you could take those away and that just reminds me of a funny story. When I was running Data General in the UK, we had Watney Breweries, which is the biggest brewery in the UK, I think they still are. And we'd snagged the deal before I got there, from IBM, and it was coming up for a renewal, and I guess £2 million worth of kit. And so our discs started to fail and I got a call from the CEO. These are these washing machine discs. So I went down there and the guy was a Scot. He said: "You're Australian, I'm a Scot, I'll just level with you." He said: "I'm not sure what's going on but it's interesting that the contract is coming up and your discs are starting to fail, I thought it would be the opposite way and you'd be on your best behaviour." And I said: "I can assure you, we are." And he said: 'Well, why don't we put a camera in the room?" I said: "That will be a great idea." Because my guys were telling me that there was something bad. So they got a guy, 2 o'clock in the morning, lift the lid of the disc drive, threw a bit of sand in. Anyway, they recorded it and they nailed this guy and it turns out an IBM salesman was bribing him to put the sand in. And this guy (the Watney's CEO) called me up, he was so thrilled we got it, and then when I went to see our field service people, I was a hero.

Because it was plain to them before…

You get me going. I think one of the funniest stories, so English. I got a call from this customer one day, Mr Fitzsimmons, da-da-da, big data centre, your service man came down and pissed on my front door this morning, what are you going to do about it? I said right, I

said I don't know, I'll call you back. So I called the service manager, oh God, so they found the guy, fired him and they cleaned up the mess. And so I called this guy, I said I'm so sorry, I said we fired the guy this afternoon. He said: "Fine, that's great, that's all I wanted to hear." I mean God, unbelievable. Anyway, so things went very well, and then for some reason '78 I got a call. I was very upset because you could only buy modems from Telecom in those days. This was ridiculous, there's no rules about this, but Telecom said if you connect any other modem to our telephone wires, and our linesman die, we'll sue you and da-da-da, but there was no regulation.

Yeah, I have heard stories about people that even in the 80s they had to bring their modem to the post office to get it registered and stuff like that, yeah.

Yeah, so there's a bunch of us, the chief stirrer was ICL and UNIVAC, and then IBM came along and Control Data, Digital, and Hewlett Packard, and Honeywell. So we all had a secret meeting to avoid talking about conspiracies between the industry. You can't do that, that's collusion right, so we were very careful. And we agreed to form an industry association, and it was called the Australian Computer Equipment Suppliers Association, ACESA, and that ultimately became AIIA. And so, I was one of the founding members, I was the first, I was deputy chair to Neil Lamming from ICL, he was the Chair. And my beef was the modems and so I was designated, because Telecom was here, I think FACOM were… Anyway, I was designated to kind of negotiate with Telecom. So I made an appointment with the CEO who was a very nice chap, and I outlined the problem and I said: "There is no regulation right." He said: "That's right." I said: "So we want to be able to sell our own modems." He said: "Sounds pretty reasonable to me". He said: "But, you better deal with Jim, Jim's an engineering manager." And he said: "Best of luck." So I had to go see Jim, I made an appointment, he got his team in there. I said: "so we'd like to sell our own modems and there's nothing you can do to stop them, is there?" They all went ballistic and they talked about his son had been electrocuted. Unrelated to Telecom, but he'd had a drill standing bare feet on a tin roof putting a drill, drilling something in the backyard, amen. Because in those days nothing was double earthed or anything like that, no insulation. But he was translating: "One of our guys is standing in water up to his knees and you guys put 240 down one of our wires they'll get electrocuted." And I said: "Well look, we're going to do this, so we either negotiate, and I'll give you ten minutes." This other chap I was with, we went out and had a coffee and I said; "I'll come back in ten minutes and we'll start the negotiation."

Whoa, okay, so and then we had a couple of hours, and, ultimately, they agreed. First of all, they wanted a four-pin plug, I said a four-pin plug, we're not going to re-cable Australia, and then they took the standard three-pin plug and they had this huge label with all these rules and regulations on it, and I thought fine. You don't see that today, but you had to have a clear plug, you could see the green and the black and the red, because nobody could be trusted, no engineers could be trusted, other than those that work at Telecom. Anyway, we got the compromise and we started, so that was a big victory, and it was quite interesting, we had a board meeting at ACESA down at Control Data and we were going to go and make the announcement, and we called a press conference. The CEO of IBM, whose name is Alan Moyes, a very nice guy said: "Wayne look, I think you should make the announcement, you've made all the running." He said: "How the hell do you get all this publicity?" He said: "You're better known than I am." I mean I was pretty 'out there'. So I went out and spoke to the assembled press in those days, six or seven of them, and we got front page on the Fin Review, because it was a big breakthrough, we changed the industry on modems. When you think about it today it means nothing, but that was, I think, a substantial step forward to make

the industry quite independent from the carrier. So, I always look back and thought that was, I was a front man, but it was an industry association demonstrating where they could help progress the nation in the rollout of technology, so it was quite a milestone.

And other members in the industry association had different matters that were of concern to them other than modems and you all worked together…

Yes, that's right, particularly about tax breaks, R&D. That was early days trying to get R&D acknowledged as useful and that was legitimate, etc, and working with government. The big problem with the government was they would draw up the tender without any consultation and then put it out, like put it in the mailbox and then you had to respond, it was so primitive. Building a building, that's one thing, but this is the systems engineering concepts was very difficult to get across, and that was when the Mandata thing was the classic, I mean just doesn't make sense. Oh well, you won't win this contract, I said thank God for that. It was a nice contract to have won because nothing had happened, but on the other hand it didn't move the industry, that did not help the government. This guy got fired, there's an enquiry, you wasted so many million dollars and time and everything else. I was pretty outspoken, and I felt strongly about things, and that was very important to get the government to understand these are new things and you can't write a formula and hope it's going to work. And I wasn't the only one there was quite a few. Control Data was trying to wrest away IBM from dominating in the government, on the old adage that if you bought IBM you wouldn't get fired. Well that's true, but yeah, I think it was just evolution, but…

It was about educating government, how is this different from other technologies or other things that came before? So the way tenders used to work before don't really work well for IT equipment where you have to redesign your organization, reshape how things are done, or the rules of the market in the case of the modems don't work because you're starved for competition I guess in the case of modems. So you have one modem and it was all tough luck, even though you might have something better, so it was really the idea that the industry association educates policy makers, not policy makers but government in how to better deal with this new technology.

Yes, and it was very difficult for the computer suppliers and software suppliers, we're so competitive, they wouldn't be seen in the same room, but this brought us together on a common cause that we have some common issues. Didn't change the competitive landscape but we had some common issues like we all needed modems, we all needed the tax rules to be reflective, etc, so yeah, it was common sense really. Bob Mounic (he resides in Canberra – retired) was the first CEO of ACESA and he was very good, yes. So I left at the end of '79 and ACESA matured, and George Kepper came onto the Board of AIIA not long afterwards. During that period, I was also very active in Engineers Australia, and I helped organise the first big world conference here with Ashley Goldsworthy. I was very active in industry associations and presented at lots of conferences and all that stuff.

So why were you involved in so many industry associations? As a salesperson how does it help you or why did you feel it was important?

No, it was largely altruistic, those ones. My dad brought me up that way: this is a democracy and you've got to pull your own weight, so don't blame others, if you've got a problem get in and help. So I felt that the Engineers Australia was a professional society that it made its contribution and played its role. And Engineers Australia back in those days they were setting the curriculum at the universities. So people like myself were involved with understanding

what the next generation of engineers would be trained, what their qualifications, training would be about. So it was sort of self-help, but very important. It still goes on, of course, and I was very keen that the ACS did that. The ACS was a learned society and setting the standards and that's what it used to do, and then the last couple of years before, I was approached by RMIT: Could the Pearcey Foundation get involved? Because we feel like the curriculum, the ACS is not that much tuned in. I said: "But that's the ACS's role," so then that's partially why I got in as a Fellow, and Ian Opperman, but there's a lot of good people in there but the management weren't committed. So people like Ian and others around Australia the leadership of ACS needed to reinforce that this role ACS played as a professional body in interacting with academia was very, very important.

So you say this is similar to the Engineers Australia where practitioners feedback to how education has to evolve to go with the times to produce graduates that are…
Employable, yes.

…ready, employable.
Yes.

And in this case it felt like the ACS didn't do a particularly good job with that.
Well, I was approached as the Pearcey Foundation, could they, and I said to them we're not set up to do that, we're all volunteers. And: "Well everybody is a volunteer in the ACS too." "No, that isn't our bag, but I'll see what I can do with the ACS." And so I started to stir it in the ACS and became a Fellow. I don't know why I didn't join the ACS because I felt I was an engineer, so now I'm a Fellow of Engineers Australia and a Fellow of the ACS.

But I think this is an important topic to follow up a little bit more, this link between education and university and industry, and what we can do in Australia to make this link as strong as possible.
Absolutely.

So I think there is two prongs to it, one is about the education and the other one is translating research back into usable stuff, but what we are talking about here is the feedback from industry into the education. Do you think it works sufficiently at the moment or what could be done there?
So I'm on an industry advisory group at Melbourne University Electrical Engineering and I've been there for a long time, I'm an Honorary Fellow. We're not taken seriously but on linkages to industry we are. But suggesting things that they might change is… in general it works pretty well, yeah, electrical engineering, I'm not familiar with IT groups. I think the ACS, it varies from state to state, but it could always be better. There's a lot of academics in ACS, so I think it's taken seriously but I can't really comment. Somebody like Ian Opperman would be able to give a much better perspective.

But your impression is when you are on this role at University of Melbourne that they listen to the idea of being better industry involvement in producing products, but not so much on advice regarding education.
Yeah, the priorities, yeah. I mean it's good to have the conflict, and we do have good dialogue, so it's open dialogue. But I mean it's a strange dynamic I'd say, just off the record,

so to speak. Whatever, but unrelated to this, one of the things that I'm passionate about is the next generation distribution and transmission group for energy, electricity, hydrogen, gas, whatever. And it's not fit for purpose at the moment, particularly the electrical side, and with the emergence, we're going rapidly towards renewable but also the electrification of everything, cars, buses, so the infrastructure has to change. And so I'm working with universities, because the skillsets in the university are such that the problem of this transition is well understood. But there's no plan, there is no national plan, everybody knows, the politicians know, we've got to make the change. But people, you see it on the debates on television, and the journalists and the young women they're very articulate and it's magnificent. But they have not had a technical background in training them. I saw one show where they said look, this young woman, … I thought God, if only I could articulate ideas as well as she can at this age when I was that age.

She said: "We've got solar cells, I mean they're pervasive in Australia, and we've got wind, there's wind farms, and we've got batteries, it's all over." And Alan Finkel was on this panel, it was a couple of years ago, and eventually they're all applauding in the audience and they said: "So Dr Finkel, as chief scientist, what do you think?" He said well: "There's a bit more to it than that, we might have to use gas." "No, we cannot use gas," and he said: "Well, precursor to hydrogen and so we might have to use nuclear." "We cannot use nuclear." and he said: "Well then, we have to change the grid, it's quite complicated, it might take 30 to 40 years." "What, no, we can do it next year." And he said: "Well, I don't think so." And he was shouted down, and it got me thinking, this is stupid. I mean we're blessed with Tesla's invention, AC (Alternating Current versus Direct Current (DC)), it's wonderful, and now there's a lot of DC from the solar cells and there's a lot of asynchronous AC from the wind generators, and linking that all together and managing it real time…. and the South Australian Premier, cut out all his power stations and the wind blew and they were off the air for 36 hours, and it cost 36 million they had to pay to Whyalla because the furnaces solidified. So, there's a lot of planning and I'm down this mission of trying to get a group together to can we define: when we've got the new grid, what it will look like, and can we document it. And if we can do that then we can work back about how we're going to manage this transition?

And that then feeds back into the education agenda, what kind of people we need to train and so on.

Absolutely, and so anyway, I'm on a mission to go off to see if I can do that in my dotage, but it's a huge financial challenge.

What I'm hearing is this linkage between industry and university and education is something that also needs some long-term planning so you understand where your industry will be in ten years' time, so that you start producing graduates now. Is this a matter of changing individual curricula, say in the IT department, or is it about shifting and encouraging people to take up certain degrees on a larger scale?

I haven't thought about that explicitly, but one of the constraints that I see, and it's a restrictive issue, is the funding of research projects in universities. They're on three-year cycles or whatever, and the career progression for academics is driven by their ability to raise funds and publish papers, as opposed to working for the society to generate… You don't have time to publish papers because you're working on areas that are pretty boring and you don't have time to work on that stuff, but you're trying to create development work and get

students to work on that and get focused on that. So that there's a mismatch of expectations and progression with what's needed. So, it's that mismatch which disturbs me and that's what we debate at the advisory group. I see the brilliant people at the university, I mean like yourself. I'm not an academic and never aspired to be one, but I know when I meet super bright people in the technical vertical, and I just see they're not being properly utilised. The industry is going to get there anyway, whether the government wants it or not, and wouldn't it be a good idea if we could all coordinate this and it's not, we should be able to do it, but anyway…

So what I hear, it's a little side track, but what I hear is it's important for a nation, or Australia's nation to have grand visions about the future because they're important for industry, education, and government, to give them certainty about what to plan for, where to go for, and what I also hear here is you wished it would be more such debate in Australia and currently this is lacking.

That's right, we should have, we shouldn't be afraid to have robust discussions about this, we don't have to agree on everything, but if we can generate a plan and there's a whole lot of compromises, but at least we've got a plan, and a stake in the ground of what our goals are. and then you let free enterprise have a go to achieve those goals, but there's some framework in which this has all been considered. I like the fact that the Labour government, and I'm not a big Labour supporter, but they said look, this infrastructure is pretty critical. But the best Morrison could do was say well, technology will take care of that. Yeah, great, you've got to do… well done, he got kicked out for obvious reasons but, so yeah.

So that was the founding of the ACESA, was in '78, so you were there went they started and you helped them with the modem, but then you moved onto the UK, how did that happen, was it because you were such a great success in Australia they said: well let's give Wayne a slightly bigger market?

Sort of, yeah. Yes, well it's the right place at the right time with the right guy. Seven years, I was going to move onto somewhere, seven years is long enough in one job, and so the UK. Similarly, the guy there he wanted to move on, but first of all they offered me to go to Hong Kong and my wife and I went up there and we had four little girls and that wasn't for us. So then my boss, and the trust was vital, he said: "Wayne, how'd you like to go to London?". I said: "Okay, off we go." So I was there for four years and in four years I trebled the business. It was the golden era for minicomputers, I mean just unbelievable. And I also had South Africa, Anglophile Africa. So I had some interesting times getting going in South Africa and Zimbabwe and Kenya and Nigeria… that was quite interesting, right in the depths of apartheid. I had violent arguments with the people down there, I said: don't you see what's coming? People said why do you go? you shouldn't. But somebody had to tell them down there and they couldn't see it. The news would come on at 7 o'clock, it'd be three minutes and I'd go to the office the next day and I said: "That was an interesting three minutes of nothing, you guys don't know what's going on in the rest of the world." "Oh no, that's all we need." I mean you could see it coming, it was terrible, terrible. Anyway, England was, we just got big deals, and it was interesting. One anecdote: at this time in the Cold War all the time with Fairchild Semiconductor and with Data General, exports to the USSR and allies was very difficult, very restricted. And when I was in England this sales guy came in and said I've got a $3 million deal and da-da-da, and he said we can crunch this now. I got the order and I looked at it and the delivery, we didn't know what it was going to be used for. So I spoke to my guys back in the US and we asked the question and they wouldn't answer it, so I

said I wouldn't accept the order, the salesman was devastated. Anyway, six months later, and I'm listening to BBC news, this morning two men were arrested on the docks at Southampton this morning as they loaded four Digital Equipment, something Vax, something… right. So they were shipping it off to the USSR, and we all knew that, so that was the depths of the Cold War…

You had to be mutual and were you selling to because there was interest from behind the Iron Curtain?

Right, and likewise when I was in Boston and I was selling into China. I wasn't in Boston for two months, and I flew off to Beijing and Tianjin, and got this big deal. And so '83 I went to Tianjin, it was all bombed out, red guards and all that, we went to this factory number three. And I took the president of Data General, we knew we were going to get a $1 million deal, I'd say it was worth something, so went in there. There's all these hundreds of engineers and that and they're all gathered around and we're treated, feted. The de Castro, the President said: "What's going on?" I said: "I don't know". So they made a big announcement and then they took this silk sheet off the top and there's a carbon copy of our Nova computer from 15 years before. And de Castro turned to me and he said: "Why did you allow them to do that, this is terrible." I mean… so they were copied, they just absolutely copied, and we shipped in there. But when it came time for shipping the US CIA they'd fly up and they'd go to the factory and have the circuit diagrams and the equipment all ready to go and pull this chip out, take that chip out. And then the CIA came up and said: "Well, Mr Fitzsimmons, you're going off to Shanghai next week, right". and I said yeah, they said we'd like you to observe… I said "You've got to be joking, I'm not a spy." "No, no, just keep your eyes open, when you come back we'll interrogate you." God, I mean just… only in the US, right.

So you were in the UK for four years and then you moved onto the US, and that's when you…

I got the big promotion to be Vice President in the mahogany room, yeah, and that was the sort of ultimate career move that… when I was in the UK they sent me to the Harvard Business School.

Exactly, so it was just after you went to Harvard Business School that you were offered the job of Vice President.

Yes, and I realised, when I got to the UK after a couple of years, I had a cross on my forehead, that I was in line. Because not many people from outside the US got to be in the vice president's role. I mean it's a $3 billion company and that was quite something. So that was good, and three of my daughters are still there, they all went to college and university there. One came back and the other three, and I'm going off in July to see them and my grandchildren. One thing that might help from you as an immigrant. When I was a young boy my dad said to me, because he was away fighting the Japanese, right, and he said: "Son, I want you to remember one thing, the people who saved our nation were the Yanks, nothing to do with the Poms, it was the Yanks and we should be forever thankful for them for doing that." And so you'll hear about this ANZUS and all that stuff, that's why, when push came to shove Churchill said: sorry, sacrifice Australia. And when the ships were coming back with our troops from the Middle East after defeating Rommel, they were diverted by Churchill, without discussion with the Prime Minister and sent up to Burma. And we heard about it, somebody on the ship must have radioed and the Prime Minister called Churchill and said: "Not your call, don't do it, that's it, we'll pull everybody out." and so the ships came back. And then the Americans, MacArthur came down here and all that stuff, but that's why I

always had an affinity for the US and why the US has an affinity for Australia, very close. The Japs nearly got here right, they nearly got here off Townsville, they had all their troop ships ready to go. So yeah, it's quite an emotional thing. But then my children and some of my grandchildren they're anti-US and all that, so, okay, but…

But your children live in the US…
Sorry, no, it's not my children, my grandchildren, yeah, they don't, it's irrelevant to them. But a lot of my friends here are anti-US: Oh, I'd never go to the US and everything else, okay.

So you were thrilled to move from the UK to the US?
Yes, the girls loved it. there was some discrimination against the girls in the UK because they were Australian, their accent…

In the UK or in Boston?
No, in Boston they loved it, loved it. Keep talking, it's fantastic. In the UK they say are you colonials, can't you get your accents, right? So, they were criticised, but they were applauded in the US, criticised in the UK. Yeah, but I've got some great friends there and I'm Irish and all that stuff. But look, we're so much more aligned with the US than we are to England now, it's such a diverse country, but that's a whole other issue.

So you worked as Vice President for Data General for six years until '89.
Yeah.

And then you moved onto another company in Boston, was that because it's again, this six to seven years' time period that you mentioned?
To some degree, but dare I say it, we all self-flagellate in Australia about racism, but as a Vice President I had pretty good free range. Set up a big R&D centre in Singapore and we were doing X.400 stuff, because the email systems were all proprietary back then, and Data General, we had email from '82 but it was all proprietary and internal. So I've been using Word and all that stuff since '82 on a network, so that's 40 years. So everybody thinks: Oh, it all happened in the late 90s, it was well underway. But the problem was that Digital had theirs and Data General had theirs and IBM, and so I was trying to work on a unifying approach using X.400, and that's what we did in Singapore.

X.400 was also with the International Federation for Information Processing…
Yeah, that's right, yeah.

So you helped to bring the conference to Australia.
Yes, that's right, yes, and anyway, I had a wonderful factory in Chihuahua in Mexico, they backed me for that. I was going to set up in Brazil but sent my guy down there, he wasn't there about two months, he said Wayne, it's happened, for us to get started to get approvals for the land to build the factory you had to pay 10 grand, facilitation fee. I said that's it, jump on a plane and come home, we're not doing that, and so I never did anything in Brazil. Which was probably smart anyway, but I had the factory… Anyway, I wanted to do a joint venture in India because I went to India a lot, traded a lot in there through a distributor, and anyway, DG President and I fell out over that, and he threw me out of his office. He said: "I'll never do business in India, ever." He said: "Ever." So I left. But Banyan was started by a former colleague at Data General who I'd known for years on comms, he was a comms guy, Dave

Mahoney. So he called me up and he said: "Wayne, I've got a job here for vice president international, and I said well, funny you should say that". So off I went, and I had to pay to leave Data General, because I had stock option and they were under water, but Data General was really in decline at that point. And so, I went down there and ran all their international operations, and it went well. These were the early days of networking, so Banyan was, they had a directory system called Vines and you could link up IBM PCs and IBM compatible PCs in a network and link them in. They were the pioneers. Novelle was the big guy, but one thing I did, in Japan they had the different keyboards. Talk about, Japan is the most ununited nation you could ever think, they've got… have you ever been to Tokyo?

Yes.

You've stood at the station at Shinjuku?

Yeah.

You look down and there's three rail gauges at those platforms, three. I mean you've got to be joking. So they had seven different keyboards for their IBM compatible, and the katakana structure they had because it's different to the ASCII… So networking was not possible, till this other chap and I went over there and we looked at it and we went to see the Electronics Industry Association (JETRO, I think it was called) and we got all the circuit diagrams, they gave us them all and we sat there in the hotel room and decide: we can crack it. So, we came up with the Banyan networking software in Japan, first ones to do it, and the sales went from zero to $1 million in about six months. But then I got fired! But I'd had a lot of experience in Korea and Japan at Data General and at South Korea I appointed a guy, I had a couple of guys there and we set up our own operation, but through a distributor, and we just struck gold. I don't know what it was, we went from zero to $10 million in a couple of years, it was just, even I was… I'd come back and the people would say: "Going pretty well in Korea?" "Yeah, I'm not sure why. but it just took off." And just remarkable, but very interesting, these were pioneering days in the sense of the computer rollout in Asia in the 80s and early 90s, but yeah.

And I think it was really the days of networking where you had all of these PCs that needed to be connected. So it builds on the X.400 stuff that you did.

Yes, and the X.500 was the directory that sat over the top of that.

But that also gave you the expertise to work on communication equipment, and that brought you back to Australia.

Well I got fired from Banyan, it was just a personality clash with the CEO. He did me a real favour but he had (very sad really) he had a personal animosity towards me, well, to Australians it turns out. And my parting glory at Banyan, the evening before the guy fired me in Munich, I went to Siemens headquarters, you know there, the station or whatever, there's a whole town there that's Siemens, and it was the global headquarters. I'd gone to meet the vice chairmen, he's the head guy, the number one operations guy. And I thought yes, this is not just tele-communications but this was Siemens and the whole shebang. And we got to see him at 8 pm on a Tuesday night or something, had half an hour in his little office, it was not a big office, oh Herr Fitzsimmons, da-da-da, and I spoke a little bit of German and I introduced my boss, the CEO. And my boss told me: we're wasting our time, so I said great, but you've got your slide deck, you've got to perform, and he did, he did a good job, and I walked out of that. I said: we've got this deal right, you get to see this guy, they're not wasting their time. And so the next morning this guy flies in and he said: Wayne, you're not a salesman's

bootlace, we had that meeting last night, it was a complete waste of time, we're not going to get that deal. So he fired me. Two weeks later they got the contract. I mean talk about, you understand the processes, in Siemens do you think if you were the losing bidder on a software that you would be into the vice chairman's office, I mean doesn't work that way. Anyway, so he left, he fired me and I had all my options and I negotiated, because I knew the founder. I immediately went around this guy's back and got all my options and exercised them and sold them. And this guy drove the stock price, in 12 months he drove it from $15 down to zero, and he got fired by the Board, summarily dismissed and lost his company. He was an idiot… he was a nice guy totally beyond his capacity, a bit like Morrison, the Peter Principle, he got promoted beyond his abilities and he didn't understand sales, and that's what it's all about. So, then I had to come back here, and I'd been in touch with George and he asked me to come back and run Datacraft Technology here and so on. And so that was fine, that got us back here, my wife's mother was 86, living by herself, yeah. She was helpless really, and I thought we should do it.

It was also a good opportunity to be close to family and to get the opportunity to work in Australia again.

Not quite, no. I would have stayed, I loved it. All my girls were there and my family back here, but there wasn't any, my brothers, I could see them, and my parents had passed on, no, it was mixed. I knew I was Australian, but I don't regret it, but at that time it was a very tough call but I felt we needed to do the right thing, and I tried to keep my green card so I could go back if necessary. Anyway, one thing or another, George's company got sold and I got heavily involved. Again, it was trust, I was his trusted lieutenant, so I used to go around and tell all the brokers… "Oh Wayne, you're just George's mate, we understand that.". But when he sold the company it was a chap Rick Harvey, I went around and I was there a few years and I understood what the R&D team were doing and it was a pretty good, very competent group, and I saw Rick Harvey had this X.500 group and he had patented it all and done it with CSIRO and whatever, and I knew about directories, so I thought this was pretty good. I said to George you've got good stuff there, but this is special. He said: "Well Wayne, how do you know that?", and I said "Oh, I just think we've got something here, and so when they sold the company I bought it back from the acquirers, and I got it for nothing, because they wanted a couple of million dollars for it and I called their bluff. Because the owner said to me in a throwaway line he said well Wayne, I wish you the best of luck with your open directories, the use by date has been and gone, and I said well, is that right. Anyway, I got it and off we went.

So you led Open Directory for about two years and then you sold it to Platinum.

And Computer Associates, yeah. I sold it to Platinum and CA bought…

Platinum.

Yeah, an accounting clause thanks to my partner, he was my legal advisor: In the event that the acquirer is itself acquired within two years then the financial workout is deemed to have occurred. They sold it within three months. Very interesting. So, we got 100 percent. So that's why I'm sitting here, right, it wasn't a fortune, but I haven't had to work since. I mean I've been employed and doing things but it gave me the independence that my parents told me I could achieve, right, if you worked hard. So it was a great success and classic thing was we raised 400 grand to get started and then the Commonwealth had this loan, R&D loan scheme, I've forgotten what it was called, and we qualified, it wasn't a lot of paperwork, so it

had come a long way since I'd left in '79, and I got this $400,000 interest-free loan. At that time that was a lot of money, so that gave us the runway, and then we started to get bits and bobs, we got a contract with the CIA, $400,000, software development. We took over a CD. I remember I went into the CIA headquarters, there in Washington and you walk in and all the lights go. So these guys came down and I gave them the CD and the invoice and they said you'll get paid next week, which we did, and we never had any interaction with them but it worked. So I mean the guy who facilitated the whole thing, he was the consultant in there and he believed in us. I mean- not bad from Mooroolbark. I had my man over there, colleague, former colleague, and we went to a trade show in Baltimore in January, what year this was, '97/98, something like that. (I hate trade shows) bitterly cold, snow and ice, and all this. Anyway, we were all lined up there with booths, probably 14 or 15 vendors, all of the director companies in the world were there. And this woman came on the stand, she says: "I'm from Bank America, nation's bank, show me what you've got", and my tech guys did it, cost quite a bit of money and we got some help from the federal government, those export grants, Anyway, they called us up and said: "We'd like to do some due diligence, you and a couple of others." And there was a bake off in Sun's labs in Santa Clara, and we won that hands down, I mean there were some big competitors, including IBM, they'd taken the Telstra product that they had. The thing that we got was the directory we had X.500 ran on Oracle, nobody else did, they all ran on their proprietary database. You go and sell to a big company like a bank they don't want another database: "Can you run on a relational database? "Yes." "Right, enter" and then we demonstrated we could do it all, and so the first order was $1 million, okay. And we went over there and I met the Board member who was responsible in Charlotte, North Carolina, so it was the deep south in North Carolina, and this Board member said "Well, Mr Fitzsimmons, where the hell have you been?" I said: What do you mean? and he said: "We've been waiting for years for you guys." They had, I don't know, 18, 20 banks on the east coast of the US they'd bought, and they all had individual ATM systems, we're going to link them up, and it worked.

Can I follow up here on one thing you said, there has been a long way since the AIIA or it was called differently in '78 had really influenced and paved the way for this research grant that you could get in '97, so can you describe a little bit how things have improved and why this was a huge improvement?

Well I think the government realised that investing in early-stage high-tech companies, this was going to be the future, and there's a lot of employment associated with the expanding software companies. And so the realisation was that the people at AIIA and all the members had been talking about this for years, and now this was a manifestation of the government changing their policy to meet the requirements. I mean it wasn't just AIIA, I'm sure other bodies were doing it but at Engineers Australia. It was true that we needed to develop an R&D capability in the nation as broad-based as possible. And there were some incentives, because the government was outlaying money, on the other hand the tax take, the return on investment was huge, if it all worked, and in our case it did. So, everybody won - it was an investment in the future and…

And you would say it was a successful move by industry to influence future government policy?

Absolutely, yeah, it was difficult, because you talked to the public servants and you're trying to talk to politicians and then talk to the public servants and: it's oh, it's very difficult, so it had to be politically motivated as well. So, a guy like George, the Prime Minister would call

him, he knew it was important. So Bob Hawke came and opened George's new factory and that was important, this was investment of government funding, which is the prudential interests of the Commonwealth, are they being properly deployed? And there's all sorts of rules and regulations, but compared with the 70s where "Bid on that" as opposed to maybe if we work with these guys and could incentivise them to work properly, we could all benefit from that, I mean that. And you've got to hand it to Hawke and Button. Button in particular, he took advice, he had a guy called Trevor Robinson, who founded Control Data in Australia and worked with them, he was influencing policy about this investment and buy local: you can trust the local companies, and Roger Allen, have you interviewed Roger?

Yeah.

He was great mates with Trevor and with John Button, and I became great mates with John and that old story when he came to Boston in '87. But I would say that the Hawke government was a revelation and really revolutionised the relationships between government and industry in Australia, and enhanced them. And they had a vision about this stuff, and Malcolm Fraser was wrapped around the axle about traditional approaches, so this was a whole new era, I think, and we're still benefiting from that. And I think somebody like Morrison, he set it back. I mean Howard was good, but Morrison stifled, and I think this new government, a guy like Ed Husic he gets it, and he won't get it all right but he's open to these people in industry: you can trust them, right. So, I think we're in for a good ride now, I think, a lot better than it has been.

So you think it's critical that government has good dialogues and good understanding with industry, and what is working well here in Australia to facilitate that, is it just change of government and then you have somebody at the top who just understands, but on the other hand you have these industry bodies that really try to lobby, so what are some pathways that can help here?

Well, one of the criticisms that governments always aimed at the ICT sector is it's totally fragmented, and everybody is acting out of self-interest, there's an industry association for everything, right, and so what do you guys want? You think about the transport association or the energy group, the mining industry. I mean these people get their act together, they're arch enemies, right, but they can get around the table and have a dialogue with government about the common interests for themselves, as a group, and for the nation. So that lacks, that is lacking. And I've tried very hard with the Pearcey Foundation, we had an MOU with ACS and AIIA back around 2012/15, something like that, and we got off to a good start and we had two-day, three-day conferences, and the government came along, Kate Lundy, she spoke, and some of the Ministers spoke, the state government Ministers, and it was great. And the mining one I remember in particular, I mean we had two or three executives from Rio, BHP, telling from an ICT point of view where it was all going and what was needed and everything else. And we had the South Australian government were particularly interested. But then let's say that the politics, the AIIA, the guy that they designated he saw it as a vehicle for himself, self-aggrandisement, and that was awful. And then the ACS, well it was the start of the problems, they didn't need anybody else, they didn't need AIIA, they particularly didn't need Pearcey, so the tripartite fell apart. We didn't lose any money, we all put money in and we made money out of it, well we didn't, it was an investment, but very short-term thinking.

And in the AIIA it's mostly like manufacturers, less so software industry, is there a new association?

Yeah, Tech Council of Australia seems to be…

So you would say what the problem is for government to have a single entity with which to interact with the industry, it is too fragmented a landscape, and there is not, maybe it's too difficult for policy makers in government to really understand and bring together all these different actors and understand who has a genuine interest of the industry at heart, and if what I hear is, you will think it would be helpful to bring this, break this down and have better representation as a single contact point for government.

Well, it's not as simple as that. But my vision as always has been: Couldn't we come together as an industry? and I don't doubt that the ACS has got the education, da-da-da, or the AIIA. But in the telecommunications, in the communications alliance, but there's two or three issues that cut across all of our industries, couldn't we come together and decide on a strategy for the nation because we're the best position to do that. And then interact with government, not to tell them what to do, but to say this is what our thinking is, can we work this up? And we can get academia, we can get government and industry working together on the big issues, whatever they are of the day. And I've spoken about this endlessly, I'm still waiting for the phone call. I'm about done now, but that's what we've got to do to be taken seriously as an industry, and the critique I've heard sometimes is: "So Wayne, that's all very well, but explain to me who speaks for the industry? I mean if I want to talk to the transport guys I know who the head of the Transport Industry Association is, and the Mining Council of Australia, it's pretty clear cut, and the industry, there's a couple of industry groups, whatever, we know who the CEO is, so we can always call them and get a view, but ICT…?"

And do you think the reason behind that is of the nature of the industry, that it's quite diffused, because ICT is related to all kinds of things…?

Yeah, that's right, it's pervasive, it's a horizontal, it's in everything today, that's probably an even more important reason why it should be… So okay, so it's too difficult right, well move on, but now AI, oh well there's an industry association on AI, well go to them. So, what does Google think about AI? Well, certainly not what these people think, right, okay… so it's a hell of a challenge, but the diffusion and the fragmentation is not helpful, and…

Maybe the interesting story to be told here is about the ACESA and how they over two decades really have helped in reshaping the landscape so that it is more beneficial to all the partners involved. Maybe stories like that can convince people to come together.

Yeah, and they seem to have lost their way a bit because for whatever reason, yeah.

Well, you probably doubt the leadership… and the other point that is here in this context is you said you got a good government grant for going overseas, export, can you talk a little bit about that?

Yeah, the export, well it wasn't a lot of money but I mean when you're small like in Open Directory, so we would go to the trade show in Baltimore, so we'd take two or three people or four people and equipment and accommodations and let's say that cost $30,000. Well we could get that back, and $30,000 was a lot of money in those, for a small company. So we could get these export grants and you had to justify them, but every little bit helped, and so it was very important at that stage, those sorts of dollar amounts really helped, they materially helped. And on the companies I sit on the Boards of, getting these R&D tax grants or

incentives, they are important in the cashflow planning for the companies, today, vital, 600 grand or a million or whatever. There are strict rules and that, but that's incremental cash that they wouldn't otherwise get, and so that's a big incentive. The other thing they've done is the export incentives. So you can borrow money from the government body that's set up, so if you've got a purchase order, and this works in Cohda Wireless, you've got a million dollars' worth of equipment and software, you can borrow against that. Once you've got a firm purchase order until you get paid you can borrow very favourable interest rates, and that has helped us enormously at Cohda, enormously over the last ten years. And those companies understand that, the export financing corporations understand all that. The banks view of loans are look, you want a loan, a credit line of 200K, I tell you what, you put 200K in your bank account and we'll give you a line of credit. Oh, so generous. Okay.

For the privilege I pay you the interest, right?
So yeah, the banks are not comfortable with projects, they want bricks and mortar, and that's so appealing to them.

So if you're okay we can go through the last ten years.
Yeah, sure, no let's keep going, yeah.

So now maybe you finished Open Directory, you talked a little bit about support from government and export grants, and…So what did you do after '98 when you sold Open Directory?
Well I started to dabble in investing in start-ups and I was on the Board of a couple of companies which were disastrous. There was a communications company called Haliplex and they had really advanced stuff and we did, got some good contracts with Ericsson and so on. So I just mucked around and sat on quite a few Boards, got involved with… now it's all a bit of a blur, I don't know what I did.

So was it that you became part of a venture capital investment, like opportunities that were presented to you and…
Opportunities, yeah, I worked with Roger Allen and a couple of other people, we made some investments, and we were consulting a little bit, trying to help start-ups. I worked for Computer Associates after they had acquired Platinum, but that didn't last very long because the CEO and Vice President of sales went to jail, sick company, sick. I went back to New York once, that's it, I left.

One of the more successful investments that you were involved in was QSR International.
Oh yes, that's right, yeah.

So you invested in a bunch of companies but some didn't go very far but some did.
Yeah, and QSR was they approached me and I knew one of the owners there and I was on the Board and then Chair for quite a while, and it got sold very successfully. But I had a different vision, I told them they had to get in the cloud, we had to go, we were just running on IBM, we need to get on Apple. They took a whole lot of convincing to do that, and that was an immediate success, I said we have to get into the cloud, and they pushed back, and that's when I quit, it's just this is stupid, you can't… Anyway, one thing and another, the company got sold four years ago, and I had a few shares in it and I left some of them in the acquirer.

Four years on the acquirer has sold that QSR, got a six-time uplift. I mean it's nice, so but they're all in the cloud now, I presume you still use the software?

Sometimes, yes.

But it's on the desktop or on the cloud?

It's mostly on the desktop, unfortunately, it doesn't work that well with the cloud, it would be nice…

That was the point, multiple users working on the same dataset and all that stuff, I mean it was bloody obvious, right, you didn't have to be a super scientist to know it, anyway, but that's what happens.

Well, I don't know, it was maybe out of personal interest, was the company driven by people, were there engineers behind the software?

Initially, yes, but then as they expanded internationally that became more sales and marketing driven. But no, I'd say the pervasive influence was that the two major shareholders, a husband and wife, didn't want to spend any money, and I wanted them to offer stock options. I've always believed in stock options, I mean I am the committed capitalist, right, and I fought them and they said "No, no we paid them well, I mean we don't have to…." And I'm into stock options and leveraged incentives, a lot of people don't sign up for that, and I love that, I think that's a real motivator. Anyway, so this transition to the cloud I felt was fundamental.

So your philosophy on involving employees is through incentivised options and stock options.

Yes.

So that they really have a vested interest in the profits of the company.

Absolutely, and living in the US reinforced that and I see it back here, it's huge, the people, they own, they've got ownership in the company, that's a very important motivator .Some people put no weight to it, but a lot of people do, particularly in the early-stage companies, and when I started Open Directory I gave shares…

Do you think there's anything particular to the Australian psyche or to the Australian situation?

There's a lack of self-belief, I mean it's changing-we couldn't be that good, could we!! So one of the things I've found which really upset me in the 70s was, even with Open Directory, I went to the federal government and tried to sell them, I mean I could sell to CIA, but not to the Defence Department here. And I said: "We've got this directory." And they said "Oh yeah, but Microsoft has got them." I said: "No they haven't, theirs is desktop, this is enterprise." He said; "They'll have that next week." and I said "No they won't, but they'll never get it because that's not where they're aiming." And then I nearly dobbed this guy in: he said "Look, I might reconsider it but will you pay for a trip to the US to attend such and such a conference." and I said "Run that past me again?" He phrased it: "Oh no, you've misunderstood. Microsoft always take a number of people to conferences and…." "Wrong company, and we're just starting. So that was perhaps not terribly indicative, but it was off putting, so there was this belief. I think he was the old guard that no, we can't… The encouraging thing is you take the Australian Tax Office, and I mean we all criticise the Tax Office, but it's state of the art, and that's good thinking. But then you look at the Digital

Transformation Agency and this stuff they did on MyGov, did you read that critique this week on MyGov? And that's my experience. The New South Wales government, the Ian Opperman stuff with the digital driver's licence and the digital birth certificate, the COVID Safe app, they were right on the edge and contemporary and everything else. The Victorian government is nowhere and the Commonwealth they had this COVID app and I tried very hard to work with them and tell them how they could get it and they never returned my calls, they weren't interested. I went through different industry associations, they weren't interested, and we did a complete analysis and said how we could help, there was no belief - they knew it all, and so this MyGov app, I mean in principle I can see what they're doing, have you ever used it?

No, I don't think so, the website I use.

So I mean you can look there particularly for the the COVID certificates, for your tax, getting into the tax account, getting into Medicare, right, and so on. And then they brought out this thing as a Director you had to have an ID, a Director's ID, for some reason. So I had a couple of goes and failed. and was "Oh, Wayne its simple." Well it isn't, because what complicated the thing is that I have a number of bank accounts and a number of entities that I use with trading and whatever else. And they ask these questions, and if you had one account that would be fine, but you had to link them all up and figure it out. But the way the questions are framed, like it's black and white, I failed. In the end I called my accountants and paid them to help me. Oh well, on your tax thing what you have to do is you make sure that that tax return reference number is directly related to the bank account that that was deposited in, and I have four bank accounts associated with tax filings. Well they didn't say anything about that, I thought, so they just made it very difficult. And this report in InnovationAus, I think it was on Monday, slammed them, have a look, and it's exactly my experience. At one level it's fine, at another level they'd never, they haven't engaged with the user community.

So this lack of self-belief is more by government and government purchasers rather than by the innovators themselves?

No, I think the innovators are well ahead now, yeah, but I think that's, in the 90s I think there was a loss of self-belief, now people are less…., and the billionaires that have been created, no, I think that culture has shifted.

And the other big question we finish up with, are there any disappointments or positive opportunities to learn that you had during your career with IT in Australia, what were some big disappointments that you had?

That's an interesting…well I think my personality is I'm pretty positive, so I had some disappointments, but…

Look, you don't have to have disappointment.

No, losing big deals, but no, I think the opportunities in the country have been wonderful, and it's up to you whether you can take advantage of them, and I have been able to. And working with good people and trusting people that's worked out very well, but I haven't had any gigantic disappointments that sort of shocked me to the core. I never had any experiences that I can recall that jump out at me. Life, as someone said, life wasn't meant to be easy, but I mean you've got to work hard, like you're doing, I mean, so no.

And last one, anything else you would like to add or mention?

Well I'm worried about the future of the Pearcey Foundation, about how we can sustain ourselves to avoid being run over by irrelevance, and that's hard work, but we've got a team around Australia. We've got a committee in every capital city and there's a degree of enthusiasm but raising money is incredibly difficult, but if you have a good function, I mean it's wonderful to watch in the different States the enthusiasm and we're going to have our national event in Hobart in November, and already the Tasmanian government said they'll help us and we're collaborating with ACS Tasmania and TAS ICT. So the one thing I'm really, is this collaboration in the industry, can we get our act together, can we come together and identify the big issues and represent them to government and whatever? Can we overcome our competitive nature, not just between companies but between industries? The people who run AI, they think they have a mortgage on AI, and well AI is part of the bigger industry and so it's pervasive. So for instance, the Internet of Things group, which is fantastic, but they have some of the same issues that the Tech Council of Australia has as well, right. Do they ever talk? The Communications Alliance, do they ever talk? I doubt it, there's no vehicle for talking. So those are some of my wishes that somehow can we bring ourselves together and be mature as a group and say: we've got all the detailed stuff down here but for a nation there's three things in the next ten years that we've got to do. For instance, on this grid, the energy grid, we've got to get it right, and we should have a plan, doesn't have to be all that detail, but there's a roadmap that we know these are priorities. Difficult.

Thank you so much for your time today and for the interview.

Thank you, Sebastian, thanks for taking the trouble.

End