**Jennelle**: **What kind of work have you done as an IT professional?**

**Allen**: Um, Everything. From Hardware research and install, software development, application analysis, business planning, logistics management, hiring and firing of staff, everything.

**Jennelle**: **What job did you end up with prior to your retirement a couple of years ago?**

**Allen**: I was Director International IT for a big American company.

**Jennelle**: **So, that was Director of IT for a region, or across the Global Business?**

**Allen**: International. I had the responsibility for all the countries in the world except USA, Canada and Mexico

**Jennelle**: **So you had the R.O.W?**

**Allen**: Yeah, in fact we called it ROWBOAT – Rest of World Business Operations Application Team

**Jennelle**: **In your role as Director of IT, what were you doing? What did that role encompass?**

**Allen**: Um, herding cats? Which was a collection of cats. There were cats on my side and cats on the rest of the world. Different teams doing different projects in different parts of the world on behalf of different parts of the business. So I had to manage the business expectations, the customer relationships, the team execution and performance. The team management basically. I was managing multiple teams in multiple parts of the world, simultaneously

**Jennelle**: **So, that obviously meant that you interacted with a large group of stakeholders, what kind of people did you have to interact with on a day to day basis, and a semi regular basis?**

**Allen**: The majority were internal stakeholders, meaning heads of parts of the business, management functions or groups in those parts of the business, suppliers, many of them offshore suppliers.

**Jennelle**: **Suppliers in an IT scope?**

**Allen**: Yes, suppliers in architecture services, hardware management suppliers, software development, data analysis, and migration services etc., all those kinds of suppliers in different parts of the world.

**Jennelle**: **Did you have much interaction with end users in your role?**

**Allen**: In the last 10 years, no. The majority of end user contact I had was at back slapping parties congratulating us on the success on one project or another. Most of the interaction that was done with End Users was done by the people that worked for me.

**Jennelle**: **What part of that job did you love?**

**Allen**: That job?

**Jennelle**: **That particular job**.

**Allen**: Going live with new projects. As in the joy of successful implementation, but part of the reason that I retired was that I wasn’t enjoying it as much anymore as I used to.

**Jennelle: And what do you mean by, “what you used to”. What did you used to enjoy?**

**Allen**: There were three things that I enjoyed most and one of them was hands on. Being able to get your head into analysis, design and programming. It has been a long time since I did any actual code cutting until quite recently when I learnt a new language. But, no hands on. And the second part of it was Customer Education. I actually did a stint in the early days with IBM. I was an Education contractor for IBM and I taught operations and programming languages and hardware platforms on contract and I found I enjoyed it immensely.

**Jennelle: What part of it?**

**Allen**: Just the communication. I mean, it was an ideal role because what you had was defined course constructs and someone else managing the student administration and the curriculum administration. So you had a whole bunch of materials and resources provided to you and you just turned up and taught.

**Jennelle**: That would have been fun.

**Allen**: It was fabulous. And what was most fabulous about it was seeing the joy of learning on people’s faces.

**Jennelle: The a-ha moment.**

**Allen**: The a-ha moment. Being able to communicate something complex effectively and they get it. And the only reason I didn’t do that long term, is that IBM cancelled my contract when they found out that I was teaching methods that were not IBM sanctioned. I’ve got a better way of doing that I would say, and in my intellectual arrogance I didn’t realise how staid an organisation IBM was. And they said, Nup, you’re not doing that. In fact I knew it was true that IBM salted the education classes with spies, I knew it was true, but I just ignored it. And one of those spied dobbed me in for teaching non-IBM constructs.

**Jennelle: And the role disappeared?**

**Allen**: The role disappeared. Which is a shame

**Jennelle: But if you had stayed in something like that you probably wouldn’t have been involved in the joy of an implementation.**

**Allen**: Ah, that’s probable. It was, for the day, and I am talking late 70’s and early 80’s, it was relatively lucrative to do that, but it was few and far between. I would do a dozen courses a year. Some would be 2 week courses and some would be 2 day courses. So they would fly me to different parts of Australia and I would just do instruction. But it wasn’t enough for a full time job, it wasn’t sustainable. In between time, working for customers and demonstrating my skills in being able to create solutions with different forms of IT constructs. In other words, these are early days of PC’s networking wasn’t what we knew today with internet and high speed capability between machines. So being able to communicate with databases on different architectures in different parts of the world with what was then primitive communication technology was a skill that I developed. So being able to integrate a comms technology with application capability by writing simple scripts and communicating over 28 board modems…

**Jennelle: Was it that kind of stuff that meant that the role you did as Director of IT with all the implementations you had that basic understanding of communications, so you were able to implement huge projects.**

**Allen**: Yes. But what gave me my start in IT was in fact 10 years prior to getting involved in IT, I had a start in Accounting. And the company that I worked for at the time, Rheem, had a program called Commercial Traineeship. And those Commercial Trainees were required to participate in all aspects of the business. I answered calls on a plug and cord switchboard, for 2 weeks, I was out on the road with Salesman for 2 months, I drove a forklift in a good receiving dock, I worked in the toolshop polishing dies for plastics manufacture, I worked on the shop floor moving materials around. All of that was part of the education that Commercial Trainees had to have as part of their Accounting qualifications. What that gave me was a basic grounding in how manufacturing and distribution businesses worked, all facets of the business. So when it came time to applying technology to provide solutions I understood the business processes well enough to know where the pain points were and what the hot shot outcomes were going to be. So, I would look through the mist and I would say “We can develop this, or that to achieve your target and that would cost you “X” amount of money. “Wow, could you do that?”, “Yeah, we can do that”, and three months later we would go Live with a new function and everybody cheered.

**Jennelle: You have said that in the last 10 years of your role, you said that you were not hands on and you were not enjoying it. Was there anything challenging in the role that that was part of the reason that you chose to retire?**

**Allen**: The answer to your question is, yes. It was the corporate nonsense that drove me away. I was part of a big organisation, we’re talking about a 20 Billion Dollar Corporation here and working the internal politics of that large Corporation to get simple things done was becoming increasingly difficult. And from the time of the GFC when money became tight for all things, Capital Investment was constrained, expenditure budgets were halved, everything was difficult for the next several years. Add the Corporate Politics to that and just getting things done was too hard. It was too much energy for so little result. My team were not being used properly, they were becoming fragmented and wanting to move on, there was just no fun in it. So, unless I moved on or did something different, it was time to give it away.

**Jennelle: So you said that you were poking around as an Accountant before you ended up in IT, when do you consider that you made the transition to IT.**

**Allen**: It was in 1977 and I went to the then company Secretary- his name was Sedric Malcomson Edgar Richard Bolt the Second - and said to him, “You have offered me a promotion to Accounting Manager for a region and I am thinking seriously about it, but I am worried that I am not enjoying Accounting anymore and I have got this idea”. And he said, “What’s your idea?”. “Well Sedric, I’ve done an analysis on the amount of legal costs that the company spends on things like Patent Copyright and Manufacturing matters and I believe I can save a fortune for this Company by setting up an Internal Legal Department, but you would have to send off to Law School for 5 years first”. And he said “Good Idea, Son. But I’ve got a better one. We are transitioning from mainframe computing into distributed computing and with your business background knowledge, I think you will make an ideal middle executive to help lead the effort” and that’s what I did. I accepted his offer and moved into a Group called Commercial Services, which was an early version of what we know today as Cloud Computing. In other words it was a shared services organisation where Finance, IT and general Administrative services were bundled for multiple divisions of the company into the Head Office. And IT was part of that. So, I then lead a series of projects which converted mainframe applications over to distributed computing and became frustrated along the way with the speed of progress when we needed to do change to the system, to integrate another part of the organisation. Like where the company needed an existing function, but needed a slightly modified version of that function and the IT guys would say, “Sure, add it to the Do List”. And the Do List was thousands of items long with a 2 or 3 year lead time before you would see something come out the other end. So I said, what options have we got, can we hire people to do this? And I was told we had no budget to hire anyone, but you could always teach yourself programming. So I did and I made the changes myself.

**Jennelle: And, as people say, the rest is history.  
You have spoken about the internal politics of dealing with the broader business to get changes done**

**Allen**: You’ve leapt 30 years into the future

**Jennelle: I have. What do you wish that was different about the way the IT departments work or how it was different so that IT departments could be more effective?**

**Allen**: There were very few people in business groups that I have ever worked with that understood the basic importance of data quality, process rigidity and function management all under one umbrella. For those who did, they were a joy to work with, they got it. The GIGO principle was what used to frustrate me most about IT. You could build good systems, but if people were not disciplined in managing data, they found smart ways around your good system, they could put crap into the system and suddenly it is the system at fault, so it is your problem and therefore your fault.

**Jennelle: So you think a higher value placed or a higher understanding of the way that technology collects and uses and outputs data and putting that value on that means that people will probably then assign a higher value for the function of IT?**

**Allen**: Essentially that is what I am saying. If those few people that I worked with were able to drive the strategic approach to IT solutions within businesses, they would be much more successful. Some of those people that I bumped into over my career were able to do that and we had outstanding success together. But most people just didn’t get it. And so and when you want to invest in a full time role and hire an actual person as an overseer or manager of Data Quality and you get rejected for it, you know what is going to happen. You know that the Data Quality is going to degrade, you know that crap is going to creep into the system and then things will begin to happen that will mount up IT help tickets and create all kinds of work arounds which will lead to further bizarre IT expectations that just become over time a mess, and the answer is, “I know! We’ll change the system”.

**Jennelle: Because it is the perception that the system is the problem, not the processes driving the use of the system?**

**Allen**: Correct. So, what I know, what every good IT person should know is that that only difference between doing something on a piece of paper, by hand, and doing something in a computer system is that with a computer system, you can make mistakes at the speed of light. That’s the only difference. They are dumb, they are a high speed moron, despite the advances into Artificial Intelligence even up to today, they are still a high speed moron.

**Jennelle: They only operate on the instructions to which they are given**

**Allen**: And that is my point. So if you want to redesign the universe from scratch and put in place absolute perfection in human beings, then none of this problem would exist. But because the reality is that we can’t do that, then people make mistakes, data stuff ups occur and if you weren’t perfect in your programming in the first place, then those data stuff ups proliferate application databases and eventually lead to a solution, such as, “I know, we’ll change the front end, that’ll fix the problem”. So we invent a new jazzy front end and put lipstick on the old pig…

**Jennelle: So philosophically, you could say that human fallibility is the essentially translated into system fallibility. Systems are fallible because humans are.**

**Allen**: Absolutely. But if you understand the value proposition of investing the right amount in technology controls and management, you can approach perfection, but that costs a lot of money. For example, one of the biggest challenges I had in the early days was convincing customers who wanted a solution built, because there was a lot of labour intensive work in building that solution, so in order to get an accurate quote of how much it is going to cost to do a project, you need to spend 25% of the actual project cost. In other words, you need to do a detailed analysis of the customer requirements. You need to document those analyses into a solution design and you need to flesh out that solution design into something that is workable by programmers and system architects, in other words have detailed map of what you are going to build. You need to have the house plans before you quote the job accurately.

**Jennelle: But that costs money**

**Allen**: But that costs money. So when you say to them it is about half a million dollars, they say, OK, well I am going to hold you to that. Oh, no, but it might be 3 million dollars, oh no I won’t pay that. So how much do you want to spend? We only want to spend half a million dollars. Ok, well when get half way down the road towards your warehouse management system and we have spent half a mil, do we just stop? Or do you want us to go on until we have spent the 1 or 2 million? Well why didn’t you quote me 2 million in the first place? Because we didn’t know what you wanted until we sat down with you for 3 months. That was the biggest challenge. So, coming up with a way of validly estimating a potential cost of a project, within reason and getting stakeholders on board, to sign up and commit to that amount of funding before you even have a detailed design is difficult. But I developed a method of doing that and then what you had to do was put sincere effort into change management, expectation management. In other words your stakeholder relationship had to be carefully handled, because everybody has a different idea of what they originally expected. But we wanted it to fly us to the moon and back. The Moon was never mentioned in our initial discussion. Oh yes it was, I had this thought. And so you always have that expectation management problem. So what you do, is you develop a reasonable basis of estimating over your experience, you provide a potential cost, you engage the stakeholders to commit to that potential cost, with a variation clause and you tightly control change management. No, we are not including that in the solution, that is out of scope. Oh but I want it. Nope, we can’t fit it in the budget. That was the art of project management. And when you have multiple projects running at once, quite often as part of a bigger overall approach, you get involved in what is called Program Management, different projects running simultaneously all targeted at a single goal. And Program Management means that you have individual Project Managers, so you become a People Manager, rather than an IT manager. That’s where I finished up.

**Jennelle: Talking about the kinds of understanding that people need to have of business requirements, and data quality and how things need to be controlled, obviously you are going to have a hug range of different people. You are going to have Software Developers, you are going to have Data Nerds, you are going to have Business Process Nerds, and you are going to have people that Hardware Nerds. That’s obviously a huge team of people. But in every person that you are hiring, what are the things, not their technical skills, what are the things that you look for, when you are hiring those people to be part of your teams?**

**Allen**: If you are talking about Technical People, I actually evolved a technique for hiring good technical people, without realising it. Then when I did a retrospective analysis, I understood what it was. What I was looking in Technical People, were two key attributes. One of those was an eye for detail and the other was the ability to think coldly and logically. Now for that first attribute, what I would do, in those days as we had computer print outs only, I would have columns of figures in 15 by 11 sprocket feed paper print out and I would say to the interviewee, “I’ve got columns of figures on a page in front of me and I am going to turn it around and show you. You have got 3 seconds to spot one of the 3 data anomalies that are on that page”. And people with an eye for detail, could spot the data anomalies quite quickly and would say, “That’s weird”, or “That’s different” and so those were the people that passed the first attribute test. The second attribute test was the ability coldly logically. And I had a concept which was basically a Boolean logic construct, three variables, A, B, C, and I would provide a set of possible values for A, B and C and say to the candidate, “One of these values will fail this logic test, can you tell me which one? You have 5 seconds”. And because it was a simple A is less than be and B is equal to C, it’s a simple Boolean Logic Test for most people to get their head around, technical people, good technical people could do it very quickly. Potentially, experience people could do it quite easily, so I would have variations of that difficulty depending on the level of experience that I was interviewing.

**Jennelle: So if you we are talking about non-technical people. Talking about Change Management people, your implementation team, your documentation team, your training team….**

**Allen**: Well there are horses for courses. We all learn. What I also learned over time is that it’s very difficult to teach IT people business concepts. But it is relatively easy to teach good business people IT concepts. So what I learned over time is that you need groups of people, some of whom are really good with business processes and even analytical capability, but are bloody hopeless at IT. You need them and you need to teach them basic IT concepts, so that they fit within an IT team. And that is a lot easier than trying to teach people in IT how a workshop should run, or how a service centre, or a goods receiving dock or an accounting system should run.

**Jennelle: Or a purchasing orders, or goods receipting or general ledger…**

**Allen**: Exactly, any of those things. So you need business process expertise and teach them IT concepts. And you need Technical people that can relate to those business process people and then you also have needs for other different kinds of people. Attributes such as communication. So you need someone from Marketing who is good at writing a brochure or presenting and preparing a speech, or designing a logo. And you need those kinds of people as well. All those different kinds of people are part of a composite IT team. And without any one of those skill sets, you are going to struggle as a rounded team.

**Jennelle**: So people that are obviously wanting to get into scopes of IT projects or IT departments or business people that want learn these technical IT skills. What kind of advice as someone who has been in the industry, what, 40 years? You’ve seen it, you’ve done it, what advice would you give them when they are looking at wanting to build skills or wanting to approach a business. What kind of a journey would you advise them to go on?

**Allen**: Well I did a lot of career development and the answer to that is a mixed answer as well. But the kernel lies in, what is your passion. What is it that really spins your wheels? What excites you, what do you really want to do with your time when you are earning money. Because after all, your life is not your work, your work is about facilitating your life. So, what’s spins your wheels enough and what do you need to focus on to develop that spinning capability. That’s the kernel of it. But that’s horses for courses, different strokes for different folks. But what I find is that, some people have a passion for hardware, and want to understand how gadgets hang together and how TCP/IP protocols relate across a router or Wide Area Network, or how servers interact and how you virtualization works and that kind of stuff. Some people have a passion for software, how to create functionality, some people have a passion just for managing details. Some people have a passion for filling in details.

**Jennelle: Like you said, your life isn’t about your work, but it is a big part of your life. So, over your whole career, what was the thing that when you think about personally or when you are talking to someone about it, something that you did that you still get chuffed about, when you think about it.**

**Allen**: Again I have mentioned one of them. That was the joy of teaching, the customer education that I did and the joy on those people’s faces when they get it, the a-ha moment. That really does make me feel good. But there were two particular occasions. One was a programming job of work that took me 4 months to complete. Which was to take 10,000 objects from a single solution and distill down to 3,000 objects that did exactly the same thing. Exactly the same thing. And, eliminating all the duplication along the way. We had a cartoon in the development department at one of the customer we worked at. And the cartoon was up on the wall. It was a manager leaning over the programmer’s cubicle, saying to the programming team, “Does anyone know anything about the order entry program?”. One guys says, “Is that the one with the 30,000 unstructured code and anyone who looks at it gets a cluster headache?” “Yeah!, Yeah!, that’s the one!, “Nup, never heard of it”. And it was one of those situations where this system had been custom developed in house and had grown up over a 15 years period and it had been worked on by multiple people with multiple levels of skill. And lots and lots of duplication had occurred throughout the system. So one of those pieces of code was in fact the order entry program. And it did have 30,000 lines of code. And when you ran a compile listing to print out that code, it was a 400 page print out. And one of the things that struck me most was, someone had tried to introduce structured techniques, which weren’t available in the early languages, but in later versions were available to what was essentially a sequential process, so, they had introduced structured techniques, do-loops and while construct instead of compare and branch or go to. So, it was a mixture of both in the code and when I looked at the main routine, or called the main line. Or in Java the Constructor. You looked at the main line with 100 odd pages of printout for that main line. And on about the 20th page there was an if statement. And I thumbed and I thumbed and I thumbed and 60 pages later there was an else statement. And then another 20 pages further on there was an and-if statement. I couldn’t believe what I was looking at. So that particular program was one of the 10,000 objects that I distilled down and took out all the duplication, the pricing logic existed in 20 or 30 different objects. I distilled it down to a set of 3 functions that could be sub called from anywhere within the system. So that took me 4 months, but I took a great deal of pleasure out of rationalising that system to make it last longer. That was the objective. We wanted another 10 years of life out of this system, but to make it happen, to make it sustainable and maintainable we had to clean it up.

**Jennelle: The last question. What kind of evolution do you IT departments doing over the next 20 years. Obviously in a high level understanding. But from the position that they are in now, where do you think IT departments are going to evolve?**

**Allen**: Out to the offshore outsourcing door. In other words there’s a trend today towards reversing offshore outsourcing and bringing application skills back in house. But I don’t think that trend is going to last. With the rise of cloud computing, virtualisation in hardware and even virtualisation in apps. As you know today most of the workstations you work on are either diskless workstations or your entire desktop is in fact a virtualized image somewhere in some remote server. That is the most cost effective way to run computing and I don’t see that changing, despite the current reversing trend towards in house staff. I don’t believe that IT departments are going to survive in anything other than administrative capacity. Meaning, you will be administering multiple providers, cloud providers, architecture providers, apps service providers.

**Jennelle: And you think all the development is going to be done offshore?**

**Allen**: I do.

**Jennelle: All the development, all the building, all the new software design, all the new control, all the data, all the hardware, it is all going to be offshore.**

**Allen**: At the big end of town. At the small end of town we are talking about consumer technologies, it’s all about apps. Everything is about apps. Now the key to relating end user computing in the retail sense to back office computing in a large corporate global sense is the integration that these apps potentially offer. So for example, now you have got apps on your phone that can order meals and order transport services, those apps are also capable of integrating back office systems. Amazon online is just basically an app. And you can do whatever you like

**Jennelle: What you don’t think that they are not going to be running something like SAP, AS400 or Oracle?**

**Allen**: Ah! The back office systems to have to have a way of relating to their end clients. The app is the integration point.

**Jennelle: It is the interface.**

**Allen**: It is the interface between the customers and the back office processing system.

**Jennelle**: So back office processing systems are never going to disappear, they are just not going to be onshore.

**Allen**: No, it is going to be in the cloud. And it can’t disappear. Because big data will not only exist, it’ll continue to grow. The more data that you capture, the more data you have got to analyse, the more trends that you can perceive and the more artificial intelligence you can apply to it, the more streamlined your operations are going to become. But if you don’t recognise those things and don’t take advantage what big data offers. You will be out of business in 20 years. You need to do data analytics, you need to collect a lot of data to do that, and you need big computing grunt, but you can’t afford to run it yourself. So you are going to have to buy cloud computing service providers to run it for you. It is just not cost effective to run your own IT department any more.