Oral History of Peter Cunningham

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Peter Cunningham

Conducted by Software Industry Special Interest Group

Abstract: Peter Cunningham who was the founder and chief executive of INPUT, a leading market research firm for software and services, describes his education in the UK and his initial positions in the UK and in the US before starting INPUT. He then covers how the firm operated over many years including detailed descriptions of the role that he played as an interpreter of the industry statistics which INPUT collected. Although successful from an industry leadership standpoint INPUT didn't grow much beyond a certain level and because of financial pressures, Cunningham had to completely restructure and refocus the company in the late 1990s. The new focus on gathering and disseminating information on the US federal government purchases of technology was extremely profitable and Cunningham was able to sell the company at a very favorable price before 2010.

Burton Grad: This is Burton Grad, and I'm interviewing Peter Cunningham, who is being videotaped at the Computer History Museum in Mountain View, California on February 7, 2014. I'm in Sanibel, Florida, and I'm interviewing Peter on a telephone connection. This interview is part of the oral history project of the Software Industry Special Interest Group, which is affiliated with the Computer History Museum. Peter, thanks for joining us today.

Peter Cunningham: You are very welcome, Burt.

Grad: I'd like to get started with family background, when you were born, something about your parents, where you lived, siblings-- those kinds of things. Why don't you start it?

Family Background

Cunningham: OK, well, I was born in July 1941. My mother was evacuated from London because of the Blitz. And she went to her mother's home in South Wales. My grandfather was a miner who died of lung disease fairly young; he also played rugby for Wales as a matter of fact.

So I was born in Wales. My father was in the RAF. He'd joined in 1932 and was in communications for the RAF. My father and my mother got married in 1940. My father had

already gone through Dunkirk and all the trials and tribulations there. And then my mother went to Wales. I was born there. And my first sister was born there.

My father stayed in the RAF until 1947, when he was invalided out. Meantime, he would come home occasionally and another child would be born. So, there were three siblings, of which I was the eldest.

We were in Wales for about a year and a half. Then we moved to Devon, spent first five, six years of my life in Devon. And then when my father was invalided out of the RAF, we moved to London.

My mother had been 18 years old when she had left Wales and actually gone to work for a family in Egypt, a Jewish family where the husband was the lawyer for the King of Egypt. And that particular family was very important, very influential in my early years. And in fact, we've stayed friends with them. To this day, I still see the remaining family members. So then I grew up in London, from the age of about seven.

Grad: Let's go back. This was King Farouk?

Cunningham: Yes, exactly.

Grad: That must have been quite an experience. Did you ever go to Egypt and meet with any of the people there?

Cunningham: No, I didn't. But the lady of the family was from an Italian Jewish family. And the father was from Alexandria in Egypt, but he died fairly young. I actually didn't know him. I just knew the mother and then the two sons that were about 12 years and 14 years older than I was. They were in their 20s when I was a young teenager.

And then the granddaughter-- who's actually my earliest friend from the age of four years old on her part and about eight years old on mine-- she was actually friends of our whole family, because my brother was the same age as she was. So we all grew up together. And they were a legal family. The two boys both ended up as pretty high-powered lawyers. The husband of the granddaughter is actually a very high-powered lawyer in the UK. They were a big influence on my life.

Grad: How old were you when you moved to London?

Cunningham: It was about 1948, and I was seven years old.

Grad: You were still young. So your schooling took place after you had moved to London. Is that correct?

Cunningham: Yes, correct.

Grad: Did you live in different places in London? Or were you primarily in one location there?

Cunningham: There were two main locations. We had a cottage in Highgate on the estate that this family owned. And they were very kind, very generous to us. And we would look after the place for them and would cause them consternation by playing in the garden and in the lily ponds and things like that.

But I went to school in Highgate. And then I went to a Jesuit school in Finsbury Park for my high school; I basically started studying maths, physics, and chemistry from the age of about 14. So I'm very poorly educated person from a general perspective. It's a very different English system from the American system where in England you specialize very early.

Grad: Let's talk about your teenage years, what we would consider high school, up to maybe 16 or 18 years old. Were you in boarding school? Or were you in just a day school?

Cunningham: I was in a Jesuit grammar school. And my parents had moved to Edmonton in North London, because the family who owned the place where we had been living sold their place and moved out into different houses. So we moved to Edmonton. I went to school at Stamford Hill, the Jesuit college.

And then I studied as I say, maths, physics, chemistry from about the age of 14, did some advanced placement things there, played rugby, cricket. But actually tennis was my main sport. Then I went to Imperial College in London when I graduated from high school.

Grad: In the notes that you sent to me, you said you were the captain of the tennis team and of Ffagins.

Cunningham: Oh, Ffagins. Right, Ffagins. Well, you remember in the Charles Dickens story there was a guy called Fagin. Our first team captain's name was Bill Sykes. And we were looking for a name. So we decided that Sykes meant it was a Fagin's team, so Ffagins. It was essentially an old boy's rugby team-- but I helped. I was one of the first people on the team. But it was a social and old boy's rugby team for Imperial College, and actually a very, very good

team. We used to, when we played our first team, we actually beat them once. So it was a sports, social, fun, singing team.

Grad: So that's similar to what we would consider intramural kind of thing, rather than playing against other schools?

Cunningham: That is correct. We would usually play against the police, against hospitals, against whatever it may be. Whereas, our college first team really was restricted to playing colleges.

Grad: And let me go back now. As a teenager, sports apparently was a major interest of yours. Were there other interests at that time, things that you spent time in besides school?

Cunningham: Tennis, mainly and mainly sports. And gosh, yes, as I say, culturally I was pretty disenfranchised in many ways.

Grad: Did you do a lot of reading?

Cunningham: I do remember going to the library and checking out records. And my grandfather had a wonderful classical music collection, which we eventually inherited. And we used to go down to the library and take out Stravinsky and people like that. And I read a lot. But I was in a wonderful environment near Hampstead Heath and Highgate, when we lived in Highgate. And then I fished a little bit. So when I went to Edmonton, I basically played tennis, went to the tennis club every weekend, Saturdays, Sundays, evenings. That was our social experience as well.

Grad: Let me try another direction. Did you do anything technological? Did you take apart radios, put things together? Did you have those kinds of interests at all during your high school days?

Cunningham: No, no, nothing like that. I played chess a little bit, cards, bridge, canasta, those kinds of things. But I did not do any work with my hands or putting things together. That really wasn't very interesting to me.

College

Grad: Now you've gone to college. You take an undergraduate degree.

Cunningham: In physics.

Grad: Then you get a masters degree as well. How does that work there in Britain?

Cunningham: Well, Imperial College is probably one of the top technology colleges in the world. And it's always ranked very, very highly. It's very hard to get into. It's also a very international college. It has three schools. One is the College of Science, which is physics, chemistry, mathematics, biology, botany, that type of thing. It has the City and Guilds Engineering College, which is the aeronautical and electrical/electronics, civil, and mechanical engineering school. And they had the Royal School of Mines, which was mining technology. And particularly in the engineering and the mining schools, you had a lot of international players. In fact, it was probably a higher percentage than anywhere else in Britain. So it was a very international college.

And we had about 3,000 guys and a hundred women at the time. So this was a very male-oriented society. Our college is right next to the Albert Hall. If you ever go to the Albert Hall in London, Imperial College is right by the Albert Hall going between the Kensington Gardens and down to South Kensington Station-- so it’s an incredible area.

There were a lot of the women's colleges around. So we had no shortage of women coming to our dances. Because they knew there was a lot of fresh meat there that they could latch onto. But college was a very interesting experience for me. I was pretty smart. But I quickly realized that physics was not going to be a long-term prospect for me. Because I roomed next to a guy who got a first-class honors degree in physics. And he was smarter than I was. And then I studied under three Nobel Prize winners. And my neighbor was not in their league. So physics is one of those disciplines where there's no skating around the bush. It's like mathematics. There's no skating around. You can't dodge. You can't weave. You fundamentally can either do it or you can't. But it was a great discipline. Because the thing about physics is you have a hypothesis. Then you test the hypothesis. You measure the results. And you see what's happened to your hypothesis.

Grad: Peter, I had exactly the same experience in going to Rensselaer in the United States. I was majoring in physics. And after two years, I saw that the other guys were smarter than I was. And that they could handle the mathematics better than I could. I could do OK in it, but I wouldn't be great. And that's when I switched to business administration.

Cunningham: Well, we didn't have that option. But you're so right. We obviously know exactly where we were. And actually it's a good thing. Because there are other people that really felt that if they just worked harder at it, they would get there. And of course they couldn't. So I actually graduated in social studies.

Grad: What does social studies mean in the UK?

Cunningham: Well, I ended up as the vice president of the college union, which is a social leadership activity-- I mean, you have to go to the dinners and drink beer and sing and make sure the entertainment is done properly and that people are kept happy. I ran my college, the Royal College of Science tennis team. I was captain of this rugby team.

Grad: So your degree was not in social sciences.

Cunningham: No, no, no. It was in practical social matters.

Grad: So that's what you ended up spending your time doing.

Cunningham: Well, it was interesting in another way in that that's really where I learned how to get on with people. Sometimes I didn't get on all that well with them. But generally speaking, you had to make speeches. You had to be part of the community. And I got elected to the college honor society, which was something you wouldn't understand so much here in America. But in the UK, if you get elected to that particular society it's a little mark that you put in your resume. People know that if you're in that group, you're essentially one of the leaders of the college.

Grad: Let me ask you a question about your family economics and your growing up. You were living for a while, obviously, on the estate of people who had considerable money from what I gather from what you said.

Cunningham: Correct.

Grad: But your father being in the RAF, I gather there would have not been a ton of money being in the RAF.

Cunningham: Exactly right. He didn't.

Grad: So you must have grown up in essentially what I would consider, same as I did, in a middle-class environment. Is that what you felt or not?

Cunningham: No, I would say we were working class, in the sense that my father had very little money. I mean, he was qualified. But he was working for cable and wireless, which is like a semi-governmental organization. He didn't make much money. My mother had four children to look after; of the five one died quite young. So that, I mean, she basically didn't work. So we had very, very little money indeed.

Grad: So that leads to my question then, Peter. So how did they afford to send you to the Royal College of Science at Imperial?

Cunningham: Well, because I had a state scholarship. And the scholarship essentially paid for all my tuition, and paid me a certain amount of money for board and lodging. But from the age of 14, I always worked during the summer and winter vacations. I worked in Lyons tea houses as a waiter, behind the counter making tea. I worked in Selfridges. I worked in Ryman's. I worked every vacation, because, generally, I'd end up each term in debt. And I still have a bank account, which I opened at National Provincial in 1960. I still have a bank account there. And at the end of every term, I would be in debt. So I learned early to work and then to work with people. The jobs I had were primarily customer facing. So you learned pretty quickly what you had to do to be of service to people.

Grad: That's one thing I was going to ask you about-- what you did to earn money? Did you continue doing that while you were in college?

Cunningham: Absolutely, oh, absolutely. I mean, it was imperative.

Grad: Were any of those jobs of a technical or technically challenging nature?

Cunningham: No. The only job I did that was technically challenging was, when I was accepted at Imperial College, I was accepted at a bunch of other colleges. But Imperial College was really where I wanted to go because of its reputation. And at that time, I thought I could be a physicist. But I learned I couldn't when I went to college. That was in London. They gave me an entry one year after I graduated from grammar school, from high school. So the year in between, I worked for the British Non-Ferrous Metals Research Association in the labs. And I actually worked in the thorium and uranium lab where we were looking at the characteristics of thorium and uranium cermets. That was just the way you mix thorium and uranium so that you could put them into bars or coatings or whatever it may be. And so that was the only technical work that I really did.

Grad: Was that a full year or just a few months?

Cunningham: A full year.

Grad: Did you enjoy it?

Cunningham: I actually enjoyed it a lot. The two guys I was working with were really very bright. And the whole group was bright, young. And it was a Non-Ferrous Metals Research

Association. So the people that dealt with non-ferrous metals, the companies that were in the industry, supported this association, and supported this lab. And you know, the uranium, thorium stuff was really-- I mean you worked with sealed compartments, with gloves. And you'd make a cermet. You'd slice it. You'd polish it. You'd photograph it. You'd look at the-- study it under a microscope, and then you'd measure its resistance.

You have to put it in tensionometers, which would apply tension to the material to the breaking point. So you'd measure the breaking point and how it changed. So actually I really enjoyed that. In fact, I enjoyed lab work a lot. I guess it was the theory that I found not quite so interesting.

Grad: OK, one more thing. How did you get the scholarship?

Cunningham: Just because I had very good marks at A level. And it was means tested, basically. If your family couldn't afford to send you to college but you got accepted at a college like Imperial, and you had achieved certain placement scores, then you applied for a state scholarship, and it would be awarded. And it was means tested. So depending on the level of income of your parents how much money you got.

Grad: That explains that part. Anything else to do with college or anything else before your graduation you think would be of interest, or would be relevant to what you ended up doing?

Cunningham: Not really. There were only mutterings about computers then. Although Imperial College now has a very advanced computer sciences department, but back then there were just mutterings about computers. But there were things in the college newspapers and things like that. And some of the stuff I'd read at college were kind of interesting. And at the time, of course, what interested me was when you do research you collect a lot of statistics and a lot of numbers. And just the actual processing of all the data is really time consuming. And there's a lot of error potential in it. So the concept of an electronic system that would process the data and allow you to do your analysis more easily was something that had gone through my mind.

Grad: But in 1964, computers were in fairly wide use in most high-level colleges in the United States, certainly. And I expect also in England. Did you use computers at all during any of your educational work in college?

Cunningham: No, and I'm sure they did have some computers somewhere. And maybe I'd read about it. Maybe they had actually got an ICL computer or something like that. And it had

been published in the college newsletters. That probably was how I heard a little bit about computers.

Grad: So you didn't have any direct experience with computers in college. You hadn't had any programming or any direct use of computers while you were in college then?

Cunningham: Not at all, not at all.

Grad: Anything else before I close off that part to do with family background, education, and activities up to the end of your college?

Cunningham: Right. You've covered it pretty well.

Initial Positions: UK 1964-1967

Grad: The next topic relates to the series of jobs that you had, starting in 1964 through 1974, some in England and some in the United States. And I'd like to go through each of them briefly, having you tell about what you did in those jobs, what was interesting, what wasn't. Let's start. You joined ICT as a trainee.

Cunningham: I did.

Grad: Why?

Cunningham: Basically, when I left college, I needed to get a job fast, because again I was pretty broke. And I always remembered when I got the news that I passed and got my degree, I said, I was going to drink a pint of beer in every bar between South Kensington and Fulham, where I lived. Well, I got through about 10 pubs, and I wasn't even halfway. But it was a great relief for me to graduate. And then I needed to get a job quickly. The idea of the computers was mulling around in my brain. So I thought who are the computer companies? ICT was the British computer company. And IBM was the American company. I went along and did aptitude tests, and ICT quickly offered me a job. And I accepted it, because the office was within walking distance of where I was living. And at the time, I had just left college and all my activities were in the area surrounding the college in South Kensington. I was still involved in the tennis and rugby and the social activities. So having a place I could walk to was really attractive to me. I joined ICT as a systems programmer.

Grad: Had you been living on campus, off campus? Where did you live while you were in college?

Cunningham: Oh, I was living part of the time on campus. They have a hall of residences in South Side. I lived there. I was actually the first person to be thrown out because it was a brand-new building, and we had some parties that the neighbors didn't like. And they ejected me. But fortunately, the warden said, there's another room in the same place that you could move into so that they could tell the residents that they had ejected me. And then they still allowed me to stay in college, which was really good. I had certain connections in the College that were very helpful to me.

But then we moved into Fulham. When in my last year at college, I shared an apartment down in Fulham with a group of people. We were all rugby players involved in the union. It was a very, very useful place to live, because it was above a lady's hairdresser, next to a greengrocer, two doors from a chemist's shop, and three doors from a betting shop where we all worked. So the betting shop was a source of income, or a supplementary source of income while we were at college. So my whole center of gravity was around the Fulham, South Kensington, Putney area.

Grad: Do you remember what your initial salary was at ICT?

Cunningham: 400 pounds a year, which at that time was I think about $2.40 to a pound. So that would have been about $1,000 a year.

Grad: As a programmer trainee what did you learn? What languages? What did you do?

Cunningham: Well, at the time, ICT had backboard plug-in systems that they used primarily. But they also had another set of computers that they had started. 1300s I think they called them. And what they wanted to do was move into the third generation. If you remember at the time, IBM was starting to move into 360s in 1964 and 1965. ICT had something called the ICT 1900 series, which was a Ferranti-Packard computer, Canadian-developed I think it was, that they had licensed. And that was their third generation computer. It was a 24-bit word machine as opposed to a character machine.

I did six weeks of programmer training along the Thames somewhere. And then came back into the 1900 systems programming group. And they directed you into different things. Some people they put into applications. And then I guess the good programmers they put into systems development. And the particular group that I was assigned to was sort-merge. At the time we were doing magnetic tape sort-merge programs, basically in assembly language and to a certain extent machine code, because they were still writing the assemblers and the operating environment for the 1900 series.

Assembly language was what I learned first. And then they had a software program called PLAN, which was a little bit above the assembly language for the 1900 series. And we worked on paper tape input primarily, not punch cards. So it was a paper-tape oriented, mag-tape oriented machine. My particular assignment right off the bat was to write merge programs. So when you do sorts, essentially you then want to merge the sorts together. That's the way you did larger sorts. You broke the problem down. You had multiple sorts. You merged them together. So I wrote a merge program.

And then the other one I got involved in was a read-reverse polyphase sort. There was an ACM publication I think in 1963, which postulated the various kinds of sorting techniques that you could use with mag tape. And that strangely enough became our little Bible. We would refer to this article and to the references in the article and use that in order to create our sorts and our sort-merge programs.

Grad: Was this not a disk machine or a drum machine?

Cunningham: No. No, nothing. They didn't exist at the time. Mag tape was pretty good.

Grad: Well, disk and drum machines existed in the United States, but apparently they didn't exist in the UK. Most of the other countries were a little behind the United States I think on the use of some of these technologies. You were there about a year or so. Why did you leave?

Cunningham: Basically, because being a systems programmer is like being in a laboratory. And so although I enjoyed it, it was pretty obvious that the money wasn't being made in back-room systems programming. And also the fun wasn't there. I mean, remember, it's 1964, 1965, 1966. Computers are just getting installed in lots of places. And they were being applied to new applications-- payroll, accounting, inventory control, manufacturing. I mean, all of those things were really just starting. And to me, I thought, well, the fun would be to apply this stuff, rather than just sit in the back room and write this code.

And remember the other thing at the time was that testing time was often at 2 o'clock in the morning, 3 o'clock, weekends. It was pretty much when you could beg, borrow or steal time on the computer that was really critical.

Grad: That would affect your social life, too.

Cunningham: You hit the nail on the head.

Grad: You decide to leave. Then you took the job with McLintock.

Cunningham: Yes, I did. So I moved into the applications area with McLintock, Mann, and Whinney Murray. That was a consulting company that had been set up by three British accounting companies, two of which were Scottish. And basically they set up this company in the South Bank in London. And I just joined. They were primarily IBM oriented using 1401 and 1440 computers.

It was character-oriented programming and there I did come across my first disk drive, the 2311 I think it was, if I remember right. You had multiple sectors. And I think my major contribution was writing a date program in just one sector of this disk, which meant you had to reuse coding and memory. Essentially the code had to modify itself in order to meet the single sector requirement.

And we did some very interesting work for shipping conferences-- Australia, North America shipping conferences, shipping lines. It was a lot of fun, very enjoyable. But I'd also got married by then and we had a baby on the way.

We were living in downtown South Kensington, Abingdon Road, just across from Biba's. You probably wouldn't remember but in 1967 in London it was Carnaby Street, the Beatles, the Rolling Stones, Biba's all that-- miniskirts up to the top of their thighs. I mean, it was an incredible time.

But my wife was working and I realized and we realized that if she left work, which you did in those days-- women left and stayed at home to look after children in England-- If she left, we wouldn't have enough money to stay living in downtown London.

And we had always both of us wanted to travel. My parents had both traveled. And Pat wanted to travel.

Programming Positions: US 1967-1974

American companies were in England interviewing for programmers for jobs. If you could spell programmer, the American companies were hiring you and bringing you over to the United States. Because in 1966 and 1967, the computer industry was exploding, and there just weren't enough programmers around. So I went for some interviews and got offered a job first of all for Xerox in Rochester. But Xerox then had one of its turn-downs, and canceled the hiring of the British programmers. But I got another job offer with a company called C-E-I-R, which was based in Washington, D.C.

So that's why I left. Actually I had oddly enough started a company by myself. I already knew that I was going to work for myself at some time. And we'd gone out and bought a Selectric

typewriter so my wife could type in the evenings. And I had formed a company called CAP, Computer Analysts and Programmers. And I had started writing off to ICT 1900 installations to say I can program an ICT 1900 and I can do this kind of things for you. Would you be interested?

But then the choice became, should we continue doing that? Or when we got this job offer in America, should we actually come to America? And we decided to come to America.

Grad: Incidentally, I did some work with C-E-I-R when I was with IBM and when C-E-I-R was going bankrupt. They owed IBM a lot of money. And they ended up building a linear programming program for us on the 7090.

Cunningham: I think it had been the 7090. And I know the guy who probably did it.

Grad: Bill Orchard-Hays?

Cunningham: No, not Orchard-Hays. There was another guy who worked with Orchard-Hays, (I think his name was Ely Hellerman, or something like that.)

Grad: It became quite complicated, because Orchard-Hays left C-E-I-R and he was required to finish the project for IBM before we'd let C-E-I-R off the hook.

Cunningham: Herbie Robinson was the president and chairman of C-E-I-R. He was a Brit who had worked in Washington during the Second World War and then started C-E-I-R; the Corporation for Economic and Industrial Research originally was an economic research organization. And then they gradually went into the computer business. But they had 7090s, 1401s, 1440s.

Grad: The problem is that they bought a number of what IBM was calling the Stretch machine. And they couldn't pay for them. Do you remember what your starting salary was at C-E-I-R?

Cunningham: $8,000.

Grad: Wow! But that was Washington-- a little more expensive, I think, than where you had been before.

Cunningham: Yes, that was 1967. I went from 400 pounds at ICT to I think to 1,600 pounds when I joined McLintock, Mann, and Whinney Murray. But that's still like $3,000, $4,000. And

when they offered me-- oh, sorry, I misspoke. It was $8,500. So when they offered this job at $8,500, it's like, good God, Pat, we're going to be rich. And then of course, I found that we were essentially slave labor. Because you had to sign an agreement that said if you left within two years, you had to pay back all your transportation costs, interim living costs, and everything like that. Actually, I think it's totally illegal. But fundamentally it must've cost them I don't know, a couple of thousand dollars to move us over to the States and there was no way we could have afforded that.

But anyway, we were totally happy with the move. C-E-I-R was a really fun place to work. It was my introduction to America. I thought when I came to America that New York was the capital. I had no idea that Washington was the capital. We landed in Dulles Airport. I think we were one of the first planes to land in Dulles Airport. C-E-I-R at the time was in Arlington, Virginia. They were just about to move to River Road.

And they put us up for two weeks in a catered hotel place with furnishings and everything. And I had to take a bus from the apartment complex to Jefferson Davis Highway, where C-E-I-R was. And I'll never forget the first day I got onto this bus with this big black bus driver. And I said something, and he said something. And I said, I want to go to 1500 Jefferson Davis Highway. And he went- wah, wah wah, wah wah, wah, wah, wah. And I said, excuse me, I'd like to go to 1500 Jefferson Davis Highway. And he went-- wah, wah, wah, wah, wah. And we both started laughing. He said, where- do- you- want- to- go? And I said, 1500- Jefferson- Davis- Highway. And he said, you- sit- there. It was like we were both speaking English, but we couldn't understand each other. And it was really funny. And we got to the stop. And he said, you-have-a-nice-day.

[LAUGHING]

And I'll never forget that guy. It was my introduction to Washington. And it was such a friendly start-- it was so funny. And it pointed out the differences between our two societies in such a lovely way. I'll never forget that man.

Grad: Let me ask you some questions. According to some notes you sent me, your first project there was to work with what became Arbitron.

Cunningham: Yes, C-E-I-R owned this subsidiary, American Research Bureau, which essentially did TV and radio audience measurement research. And it was a competitor to Nielsen. And at the time both of them did TV and radio. And I was seconded to the department or the company which was actually in Beltsville that carried out this research.

It was actually in a sense my first exposure to research. Because twice a year they would do these surveys, where I think, at one point, we would survey a million people, a million diaries. These diaries were sent out to a million Americans in different localities around the United States. And then you collected these diaries back. And they had to be key entered. By this time, of course, I knew about punch cards and how to sort them out and things like that. And then you feed them into the computer. And then you calculated the ratings that were used for spot buying. All the TV, radio spots were bought based on these ratings. So the ratings were critically important to advertisers, advertising agencies, and the radio and TV stations. So it was a really great business.

We had about 20 programmers in our group. We were writing at the time for the IBM 7090 and then for the 1401s that they had. C-E-I-R also has some GE-265 machines that they were starting to develop time-sharing systems for. But anyway, I went over to Beltsville and started work there—a great bunch of people, a little different. The people in River Road were pretty high-powered, working on linear programming, working on Air Force contracts and on dynamic programming, that kind of stuff. The people over in Beltsville were primarily applications programmers, ex-policeman, and maintenance people, and operations people, a great bunch of people, but more down to earth I would say than the people on River Road. And also, of course, that bit of the company was making money whereas the government bit wasn't. And after about three or four months, they made me the assistant manager for this programming department. So I had about 25 people reporting to me. But then essentially Control Data Corporation bought C-E-I-R, because C-E-I-R had this time-sharing service.

C-E-I-R also had IBM S/360 65s up in New York that they were working on, too. So Control Data bought the company. I joined in January 1967. And I think Control Data bought them the end of 1968.

Grad: I thought that C-E-I-R had become bankrupt at that point in time.

Cunningham: They were close to it. Yes, that's true. I don't think they ever declared bankruptcy, but they were really close, probably surviving because people like IBM were still allowing them to go on without paying their bills.

Grad: Yes. It was a long time. I don't think IBM wanted them to go bankrupt. So we forgave the money they owed. IBM said that if they gave us the linear programming code, we wouldn't hold them to the contract they had signed.

Cunningham: The other thing is because their center, their data center in New York had one of the first IBM S/360 model 65s. I used to go up there and work on it for some things. Maybe it was MSA that had the 65 up there; maybe MSA bought the center. But C-E-I-R had an

important role. The IBM people would come into the data center and bring other clients in using it like a demo center in Washington, D.C.

Grad: And how did you enjoy the programming? Or did you enjoy management more? Those are the two questions I wanted to ask you.

Cunningham: Ah, well, I loved programming, and I was pretty good at it. And I also liked doing projects. One of the things that I learned from the Brooks book, *The Mythical Man Month,* and from other people was that you keep breaking them down, breaking them down, breaking them down. You break them down into their components. It's like a car. You disassemble it. If you're going to plan it, you've got to plan right down to the last nut and bolt. And so many people at the time did not do that. They would do spaghetti code. They would start programming. And then the whole thing would kind of fall apart.

And I thought that was totally wrong. And so in my projects, I always took longer to get started. But then then I'd say, OK, this is when it's going to be done. This is how long it's going to take. And basically it would come in then and be successful. I'd say from looking at project scheduling, project management, that kind of thing, lines of code estimates, that kind of stuff, my results were really good. The place I fell down dramatically, and I think probably for the whole of my career, is in dealing with people. I knew I had a problem in this area.

Apparently they liked what I did. So they said, “Do you know anybody else that you can bring over from England?” And I did know a few people. And I brought over this one guy, Paul Ricker. And he was 18 years old when I first knew him. He didn't go to college—he was a brilliant programmer and East End boy. And he came over to the U.S. He must've been, I think, 20 then when he came over, and his wife was like 19. His wife and my wife were great friends. They both wore mini-skirts in the food stalls and got told that they were very sluttish by Americans that didn't appreciate mini-skirts at the time.

Anyway, so I brought him over. And he was working for me. He came into my office one day and he said, Pete, do you know what's going on? And I said, yes, of course, I know what's going on. This project is on time; this project is getting behind a little bit. And I know we've got a real problem over there. But I think we can solve it. He said, no, no, no. He said, do you know what's going on with the people? I said, well, what do you mean? He said, well, do you know that Fred's got a drinking problem and that Jane is having an affair with so-and-so. And that's causing a lot of problems. And he laid out the whole department in terms of the people and the relationships.

It was like a completely foreign country to me. It was beyond my comprehension. Paul had this wonderful way of talking to someone. He'd say, hey, come on, Burt. No, hey, what's going on?

Hey, have a drink. Tell me what's happening. And everybody would unload to him their issues and their problems and stuff like that. And he ended up being one of, I guess, one of the biggest data processing managers in the world, worked for the Australian, Alan Bond. And he ran an airline computer center after a while. He showed me the difference in skill. My skill was very technical in management. His skill was very people oriented.

Paul was an eye opener. And I realized I had a problem. So I went to a course, an evening course, on communication, not telecommunication, but actually on communication. It was taught by a woman who was an American, but she had a Ph.D. at Oxford University in communications. She was doing this class about group work and working together and things like that. And I went up to her afterwards and I said, do you mind if I ask you a question. I have this problem. And she said, what's the problem? I said, everybody's scared of me. And I said, look, I'm 27 years old, right? Everybody who works for me, except for this one guy in this 25-programmer department was older than I was.

They were in their 30s, 40s, 50s, some of them. And Paul had told me that they're all scared of you. And I said, why are they scared of me? Why do people get upset when I talk to them? I'm pretty good at what I do. I get stuff done. And I get on well with people. They ask me to go skiing and drinking in the bar and stuff like that. So I don't have a problem. But when it gets to dealing with the project scheduling and problems in how projects are going, I have a problem.

And she said, oh, I know exactly what the answer to that is. She said, in America when you're a child, you're taught to be demonstrative -- be a river, be a stream, be a tree. In England you're taught to not show your feelings. So when somebody comes in to you and they say, hi, Pete, I'm working on this project, and they say, we've got a problem. And you will have a stony face, and you'll say, tell me about the problem. What's the nature of the problem? Well, it's not too big a problem, they'll say. Don't worry, just tell me, just give me the facts. She said what you're interested in is the facts and the data. And you keep a very cold, very analytical attitude. An American manager doesn't do that. An American manager will say, well, it can't be too bad. Tell me what what's the matter. Show me what the problem is here. They'll be a much more accommodating and a much more empathetic person.

At the end of the interview, they may fire the person. But the person will walk out of there feeling, oh, well, you know, I deserved it or whatever. A person will walk out of your interview feeling, God, I'm going to get fired tomorrow. They all think they're going to get fired tomorrow. So she pointed out a really interesting cultural difference. And I have to say over the years I've tried to work on it. But it's still true. If somebody says there's a problem, the first thing I say is give me the data. And I guess it goes back to the physics, analytical, the testing the hypothesis thing. And so as the personal management characteristics, the emotional intelligent characteristics in my management, I think, have always been lacking.

Grad: That's interesting, Peter. You describe a lot of my own personal characteristics as a manager when I was about your age, maybe a little younger, at GE and later at IBM. So I can really appreciate what you're saying. It's not totally because of the English-American cultural differences. It has to do with the way you think about things. You think about them in a totally analytic way. You're objective. And you say, OK, here's the problem. How do I solve it? Not here's the person, how do I work with them? It's an interesting insight that you're giving in that. Let me ask you a question, and then we have to move ahead. Did you use that knowledge in any way to either change your behavior, or to seek jobs in which that behavior wouldn't be a problem?

Cunningham: No, to me it was a very important insight. You have a very interesting question. Because at that stage in your life -- at 27, 28 years old-- which direction do you go in your life? Do you go down the technology path or you go down the people path? There's a wonderful book right now, I don't know if you read it. It's called *The Brain is Wider than the Sky*. It's by a guy called Bryan Appleyard. The book's title is the first line of a poem by Emily Dickinson that was written in the 19th century, which is essentially about the concept of the brain. She was looking at the brain and how it runs a human being. Well, Bryan Appleyard was looking at it as what's our future.

The technologists will take us in this direction, like Kurzweil, for example with the Singularity and stuff like that. And then the social scientists or the emotional intelligence person would take you in a different direction. So at that point in time, I had the decision to make. I could go back to programming. I was a really good programmer. Everybody told me that. And I could go back into it. And I enjoyed it. It was really fun.

I mean, you look at the programmers today-- I mean, all of us, I mean, I still regard myself fundamentally going way back as a programmer. And it's incredibly fun. But also dealing with people and solving problems and applying the technology is a different kind of fun. And I was torn. But I decided what I should do is change my characteristics.

And we all know programmers and technologists that are difficult to get on with. I didn't want to go down that path. I would ideally like to be somebody that has a certain amount of emotional intelligence, although you didn't call it that at that time. So I tried to change my behavior, and I think with some success. Although under stress, I always fall back into that cold, analytical, objective way. It's just hard to change. And basically, what I learned is to tell people that.

I think that was one of the biggest changes I made was when I was hiring somebody to work for me, I would say, look, this is my characteristic. You know, I get very cold, very objective, very analytical. You just have to deal with that. And so I think it was very insightful. The black bus driver, the Ph.D. woman and actually a black woman that I shared an office with in Washington

had a huge impact on the way I thought about America. Because you've got to remember-- I'm sure you do-- but 1967, 1968, 1969 in Washington was not a happy time.

We had the race riots. We had Washington being burned down at certain points. Washington at the time was essentially a Southern town. I mean, it was in the South, and the attitudes in Washington were pretty racist in many ways.

Grad: Peter, I grew up in Washington D.C., and actually one of my uncle's store on 7th Street was one of the ones that was burned down. He had a liquor store. It was burned down during those riots.

We're going to have to move ahead. This is a fascinating direction. And I'll be interested as we talk later on about how your management style changed and whether you were able to relate differently. You then left CDC because you thought that really wasn't a place that was focused on software. Is that a fair statement?

Cunningham: Yes but they were beginning to get into it. The fundamental reason I left CDC was I had a bunch of people that were being paid a lot more than I was, even though I was managing them. And I went in to see the person I was reporting to. And I said that because I'm the manager, I find out what people are being paid. And I'm being paid a lot less than people who are working for me. That isn't right. They said, no, you've only had this many years experience. And therefore, this is your pay grade. I said, well, excuse me, screw that. I'm out of here.

MSA, Management Science America, was hiring in Washington at the time, making a big play of what was going on. And so I went to talk to a manager there. Plus, ARB was kind of like in a particular narrow segment, and I wanted to see other things than just the American Research Bureau.

So after the CDC acquired C-E-I-R, and I designed the system to shift to the CDC 3600s-- I laid it out and actually it was pretty neat little system-- when that was done, then I left to go to MSA, which was coming into Washington, buying up data centers. They bought four data centers in Washington D.C. The whole idea was that they would go public in 1970. This was an Atlanta-based company. But it turned out that the market crashed in 1970. They didn't go public, and essentially they went bankrupt. And that's when they got out of data centers, professional services and under the guy who came next. They shifted just into software products. And they came into our office in Washington and said, you've got a choice. You stay with us when we go bankrupt, then you take your chance like anybody else or you can go join another company. Or you can form your own company. It's your choice the president said.

Well, we were all young, had never run a company before. The three of us were all managers -- Bill Goodhew, Tom Shuford, and myself. And we said, let's see if we can find a company we can go with. And we found a company. They came to us, actually, out of Los Angeles [Name of Company???]. Computer Sciences Corporation was setting up a nationwide time-sharing system that became Infonet on UNIVAC 1108s. And this other company had got financial backing to set up a similar network on UNIVAC 1108s and hired some computer sciences people. So anyway, so we took our office in June of 1969 or 1970, can't remember which year it was, over to the new company. And then three months later, our paychecks and expense checks were all bouncing. Well, you know if you're 27, 28, 29 years old, we were all pretty young people at the MSA group and if your paychecks start bouncing, it means your rent checks bounce, everything else bounces.

So anyway to cut a long story short, the three managers, Bill, Tom and I went to our clients-- and I actually had the biggest clients-- and we said look, give us a check for all the work that's done as of today, and then we'll be able to continue working for you, because we're going to leave this company. And we're going to form our own company. But the old company has got the contract. So we can't do anything about that. But we suggest you cancel your contracts, pay us to date. And then we'll start tomorrow working for you from our own company. We each of us collected the checks, took them back into Washington.

I got on a plane that morning and flew to Los Angeles, went to this office of this company and said, “Here are the checks. They're your checks. But you've got to give us a cashier's check for this amount of money to cover our payroll and expenses, and we're out of here.” And the chief financial officer hemmed and hawed and everything. This is where I learned the importance of cash, by the way. But I had my checks, and I wasn't giving them to him until I got the cashier's check. So I got the cashier's check, jumped on the plane, the red eye, got back to Washington, went into the office. Everybody was there. We deposited the cashier’s check. Everybody got paid. I went home to bed.

And that's when we formed J.W. Goodhew and Associates which was a programming company. We had about 25 people, a bunch of quite good contracts, a lot of them non-government contracts in the manufacturing space. That's where I was working at the time and doing manufacturing applications for apparel manufacturers, primarily in Pennsylvania, actually. I mean the only name we could choose immediately that we knew that wasn't taken was J.W. Goodhew, who was our first president. But he was from Atlanta. And three months later, he said, Pete, you're going to be president because I'm going back to Atlanta.

So here I am in 1970, I'm 29 years old, and all of a sudden I'm president of a 25-person software development company, never having had any training for management or sales or anything like that. And that was pretty interesting. But we did quite well. We developed the

model Medicaid management information system. We did some work for the Red Cross. We developed the Airline Pilots Association dues subscription products and everything else for them and then the manufacturing systems up in Pennsylvania. That was interesting running the company. We were actually growing it. But I had a wife, two kids and by that time, expenses.

What we did, we sat around the table and said, well, OK, how much money can you put in to buy shares? So I could only put in $1,700 dollars. That's all the money I had, whereas, a couple of guys, a bit older, but they had more money. So two of them ended up with $4,000 worth of shares each.

And so I was a minority shareholder, even though I was the president. And about a year and a bit later, when I was on vacation, they had a palace revolution. And the two guys with 4,000 shares each, whatever the number was, decided that they were going to kick me out and take over running the company. And they did. I sold my shares back to the company and became an independent consultant.

Grad: Stop a minute. Why did they kick you out?

Cunningham: Because they thought they could run the company better.

Grad: Well, did that mean that they weren't happy with you as a person? They weren't happy with your management style? It had to be something more than just money.

Cunningham: Do you know, I never really found out, actually. Well, I was changing the organization. There were three managers in the original office, right? There was Bill Goodhew, myself, and Tom Shuford. And when Bill Goodhew left, he made me the president. I mean, everybody else had to agree. But fundamentally, we basically did what Bill said. And I was picked over Tom Shuford, who was a bit older than I was, had been at MSA a lot longer, and had a much tighter kind of relationship.

And I think Tom always felt a little bit put out by the fact that I was president and not him. And then he hadn't been that successful selling. And in that sort of environment, you've got to sell. So, I'd hired a couple of people at his level. I was president and he was a vice president. And I hired, I think, another one or two people to come in as vice presidents. And I think he saw his power gradually slipping away. And I basically I didn't actually deal with the emotional thing. I didn't sit down and say, hey, Tom, look you're absolutely critically important to the company. I really value what you're doing. I mean, I just didn't do that. And then he had this other guy, who was a more junior guy that he was good friends with. So I think it was really that. I mean, I've actually never really thought about it. But I think that's what happened.

Grad: You then decide to leave Washington and go out to San Francisco. Why?

Cunningham: Well, when we came to the United States, our idea was we'll spend three to five years on the East Coast. Then we'd go spend three to five years on the West Coast. And then maybe we'd go to South America or Australia or the Near East or something like that, because we both wanted to travel.

And I'd got involved-- when I left Goodhew, I got involved in some interesting projects. I helped run a presidential commission. Lyndon Johnson had set up a presidential commission on marijuana and drug abuse. And there was a congressman called Flood, from Pennsylvania, who was the guy who was the prime congressional interface with this commission. He ended up in jail, actually. Anyway, I got introduced to him, they had a budget of $3 million and they'd spent $2 million, and they had got nowhere. And a woman who ran the Allegheny Airlines data processing said, “Pete, maybe you can go and help them.” Because the one thing she knew was that I could run projects. So I went to talk to Flood. And his assistant said, “Well, here's the problem.” And Flood was the chairman off the House social services, Health and Social Services Administration Committee. And he was vice chairman of the Congressional Federal Defense Committee. He was a very powerful congressman. His office was as big as the room I'm in now, in the Congressional Office Building. So I said, “Sure. I think I can help you.” I'd been involved in the development of the model Medicaid management information system, which HSA had developed or whatever it was called at the time.

And Medicaid is a state/federal program where you share, unlike Medicare, which is a federal only program. So the federal government couldn't say to all the states, you've got to use this program. They developed the model, and then the idea was you had to go around and tell each state what the model did, and show how they should use it, and why it would cut down on fraud and give you better results and things like that.

So I knew something about the whole medical area. And I knew people who had done research in it. So I said sure, I'll give you a hand. I got a couple guys that had been at MSA and who knew the health care business and really got them to come in. And we actually-- or they really, I didn't do much. They actually completed the study. It got reviewed by the 13 great and good members of the commission. And the conclusion of the study was and the recommendation was that marijuana should be decriminalized. However, Lyndon Johnson left office. And President Nixon was not very enamored of the prospect of decriminalizing marijuana. But the tobacco companies already had Acapulco Gold; all those trademarks were already registered. It was very interesting.

Anyway, so I got involved in that. I worked for the Federal Trade Commission, the Bureau of Competition, putting in a time-sharing system. So I did some really pretty interesting projects.

But my wife and I were looking at buying a house. We could finally afford to look at buying a house. We said, “Do we really want to live here?” Do we want our children to be brought up in Washington, with all the problems that Washington had gone through? And we said, no. We think that we'd like to try California. So I jumped on a plane and flew out to California.

Grad: Talk about Your family at that point. You had married Pat in 1966.

Cunningham: Yes, I got married to Pat. And then in the end of 1966, we had a son, Paul, who was born in England. So I arrived in America with $100, a job, a wife, and a three-month old baby. Then we had a daughter, Rachel, who was born in Georgetown Hospital in 1969.

Grad: You then go out to San Francisco to look for a job or to start to do your own programming company? What did you have in mind?

Cunningham: Basically, I was out of programming by this time. I mean, the stuff I'd been doing was more project management, consulting, really, for the presidential commission and Federal Trade Commission, things like that. I was really consulting. It wasn't anything to do with programming. When I flew out to San Francisco, I called some people that I'd met through the company that had gone bankrupt in Los Angeles. And I just got on the telephone and called. And a guy named Phil Friend said, “Come down to Quantum Science. I've got a project. You know software. I've got a project in software.” I went down to Palo Alto. And he said, “Look there's a company called Comshare. They're thinking of taking a software product that they've built for their XDS systems and selling it. Go and look and see if there's a market for it.”

So I went and looked for a market for Comshare and did some research and things like that and found out that there was a market but only if they converted it to run on IBM equipment, which they didn't do. And so it never flew. But funnily, that was my first market research project.

And then Murray Disman, the guy I worked for, the President there, he offered me-- he said, “OK, we need somebody to come in and run our software and services business, because we're primarily a technology consulting, market research and consulting company. And we do have a little software and services group that's run by a guy called David Jung. So we'd like somebody to come in and run it.”

Meanwhile, it turned out I was working for another company right across the street in Welch Road in Palo Alto. They'd tracked me down through Washington because they wanted an evaluation done of Medi-Cal, which is the California Medicaid system, to see how much money EDS was making out of the Medi-Cal program. I did that project, and of course, found out EDS was making an incredible amount of money out of it. I calculated the total cost that they would have had because of their computer systems, everything else. And then I knew what the

payments were to them, based on the system that they'd put in. That was an interesting project. And they were kind of similar in a way, because it was a research component to that, analyzing the costs and expenses. EDS ended up losing the contract, and it went to Lockheed, as a matter of fact. EDS, I guess, wasn't very friendly to me at the start of our relationship, but got better as time went on. Anyway, Quantum Science offered me a job. They said, we'll fly your wife and children out here.

So I called Pat and told her to pack up the house. And she packed up the house, the cars, stuck them on the train and came on out to California. And I started working for Quantum Science.

And they have a software and services market research program. And this was probably one of the first, where we were looking at what's the future of the software and services industry. They actually had the contract with ADAPSO [Association of Data Processing Services Organization] to do an annual survey. And I think I may have worked on it. But they lost the contract to IDC.

But I had started doing market research. And I found out that I really enjoyed it. Because nobody knew in 1973 or 1974, that the total market worldwide for software and services was about $10 billion. Now it's like a trillion and a half dollars, maybe more. And everybody gave away software and services, because they were the things you used to sell the hardware. And I didn't believe that. I said, I thought computers were like the engines in the car, totally useless unless you've got wheels and steering and brakes and lights and everything else.

And software and services were the framework which delivered the power of the computer to enable you to do things. So my view was software and services were really going to be a huge industry in the future. And that's where people should put their time and their attention. But Quantum Science was primarily technology oriented. And I was like three ranks down in the company, after having been the president of albeit a small company in Washington. And they were doing stuff that I didn't think was right.

Eventually, they brought a guy over from England to be my boss, as opposed to the guy I had been working for that I thought should be president of the company. And they didn't make him president. They made this other guy president. I went into Rich Peters' office, and I said, “I’m sorry I'm not working for you.” He said, “Well, if you're not, one of us is going to leave.” So I said, “Well, I suppose it's me.”

Starting Input: 1974 - 1980

I left Quantum Science in November of 1974. And then I had a choice of what I could do. I could go back into consulting by myself, because when I did that, I made more money than I ever made working in a company. Burt, you probably know. It's like when you're operating by

yourself, you don't owe anybody anything. You pay all your bills. You have money to do what you want. I mean if you're good at what you do, like you are, it's a very rewarding experience. So I could have gone that way or formed a company. And I talked to Pat about it. And I said, I'd really like to form a company, because, right now, I know the industry. I know CSC, EDS, ADP--they're all $200 million companies. There were small companies getting started. I knew what IBM was doing and the other computer companies like Control Data and all those others were doing. I knew the industry. But I also knew that it was going to grow. And one person couldn't really comprehend the whole of the industry. And if the value was to deliver a look at the future, at what was going to happen, it really would require a company and a team to do it.

So we decided to form a company. And I formed INPUT. Originally, it was Peter A. Cunningham and Associates doing business as INPUT. My first office was in my basement, which was also my garage, in Menlo Park and Sharon Heights. And every morning I'd get up at 5:30, go down to the basement. I got a telephone put into the basement and some wooden benches and stuff. It was very small. And then I would get on the telephone at 6 o'clock, call the East Coast. So you work from 6:00 until 8:30 calling the East Coast, because of time zones. Then I'd have breakfast and see my kids off to school.

And then from like 9:30 until 11:30, I'd do the Middle West and the West Coast calls. In the afternoon, I'd write up the stuff that I'd done and Pat would type it up in the evening. And the first year we lived on, I think, $8,000, and basically on credit cards. In 1975, I think we did about $87,000 worth of business. I did my first multi-client study. At the end of 1975, I hired my first person, and moved into a service office on Welch Road at the beginning of 1976.

It was fun. Computer Sciences was my first client. I called CSC, and said, Gail Lepard, I'm operating by myself now, just wanted you to know. She said, “Right. I've got a project for you.” I said, “What's the project?” She said, “I want the billing rates on these three companies for a programmer analyst.” $300 was the price of my first contract. And I should have kept my first check, but I didn't. But anyway, Gail ended up being a good friend, a good client. She was the head of market research for Computer Sciences Corporation.

I did my first market research studies in 1975. The first study we did was the impact of the recession on EDP budgets. There was a guy who wrote the "Heard on the Street" column in the Wall Street Journal. Don't know if you remember that. At the back of the Wall Street Journal there was a "Heard on the Street" column. Anyway, I sent this guy a hand-written letter and said, I've done this study. And here are some of the results. I thought you might be interested. And he wrote a whole column on my research. Because basically, what it showed was the recession in 1974 and 1975 was really cutting EDP budgets. And that was not what everybody was saying. And IBM was really pissed off about it. And a few other companies were pretty

pissed off about it. They tried to say, oh, no, it isn't. But Charles Elias [the ‘Heard on the Street” writer] he picked it up and that got me on the map.

Grad: I want to get some background here. When you founded INPUT did you put any money in it? Did you have any money to put into the company? Or did you simply utilize your credit card and stuff like that?

Cunningham: I had no money to put in. We used credit cards and stuff like that and it was hand to mouth.

Grad: Did you have any employees you were paying at that point other than yourself?

Cunningham: No, just myself and my wife, who was basically unpaid.

Grad: OK, what did you decide that the company was going to do? When you set up the company, you expressed in one of your notes to me that you said there were going to be three services. You talked about research, analysis, and opinion. Was that a conscious thing? Or did that sort of evolve?

Cunningham: No, actually, it was conscious. I felt, I mean, and I still feel today, there are a lot of supposed experts who pontificate about things, who-- especially university professors, actually-- who have no real data to base their opinions on. Or if they do, it's like a snapshot. And coming from my background in physics and then also at the American Research Bureau, that was absolutely quantitative research. There was no interpretation of the results in ARB. This is the demographics of the people who are watching a TV program or listening to your radio program; you can't argue with the statement. That's the data. And as long as it was statistically valid, then that was appropriate.

So my feeling was, you collected. You did research. You did the data. And then you did the analysis. And then, you applied your knowledge to the analysis to say what went on. And I have to say initially, I felt the company should just do the data and the analysis. And that the knowledge should be from our clients applying their knowledge and wisdom and experience to the data and the analysis that we had done. And I used to say to any prospect, I'd say, “Look, this is what we do. We collect data. We do analysis. And then we do a little bit of our opinion.” But as we got more experienced, people kept saying that we want your opinion, we want your opinion, we want your opinion. So we moved a little bit more to the knowledge base.

But I'd say to you when you were at IBM, “Look, Burt, here's the data. If you don't like the analysis, you don't like the knowledge, don't worry. There's the data. Here's the data. And here's the analysis. Don't worry about what we think you should do.”

Grad: In other words, if they didn't agree with your conclusion, that was their issue. But they had the underlying information that you had used to draw your conclusion.

Cunningham: Absolutely, absolutely.

Grad: Let's keep going with this. In other words, you're saying that when you started INPUT, you clearly had this view that if you did the research and collected the data, and you analyzed it effectively that it would be of value to prospective clients. You didn't plan to do programming work or anything like that. Is that correct?

Cunningham: Absolutely correct. And the only difficulty with it actually is I also felt we should predict the future. The problem with that is that you can't sample the future, right? When you go out to do the research, people can only give you data on what they're doing now exactly. When you ask their opinions on what's going to happen in the future, you run into a whole set of issues. Because if you ask people at any point in time what's going to happen about this, they give you answers which are conditioned by their current condition, as opposed to what might happen. They can't predict-- remember this, nobody, nobody predicted the growth of the cellular phones the way they grew. Nobody predicted the future of the laptops, the way they grew. The battery technology, the screen technology and the other technologies needed for the mobile platforms didn't exist. So what you had to do was look at things, take the people's data, and then look at things that were happening outside: the economic conditions, the industry conditions, the technology conditions, and the other things. And then apply that information to the data that you had collected. So that was something I think we ended up being very good at.

Grad: I want to stay with this period of 1974 to 1980. I have five or six questions I want to ask you about it. And I'd like to have reasonably brief answers on them, if I could. OK, you founded the company. It was self-financed. At any point in time during those years, did you require outside financing or need to borrow money?

Cunningham: That’s a very interesting question. The answer is I wanted to do it all myself. But I really should have used some outside financing. We were competing with Gartner which started after us. And basically Gideon Gartner said that things didn't quite work out the way their business felt at the start. And he actually came and looked at some of the stuff we did. And then he took what he saw and he did it much better. And Gideon could do that because of his background and he used other people's money to scale the company. And I had no idea how to do that. I should have done it. And I didn't.

Grad: So you never actually used outside money. Did you have to borrow money to keep the company going?

Cunningham: No, we had a line of credit, which we used a little bit, fundamentally to keep the company going. When we got into difficulty, I didn't pay myself. So Pat and I, we would go sometimes three or six months without taking any money out during the first three years.

Grad: Let's keep going. The revenue model, how did you charge for your services?

Cunningham: There were two kinds of business. One was subscription, or multi-client, where people paid up front. And the other was custom, where people paid a little bit up front and then paid on completion of a project.

Grad: Give me some idea of what those early contracts might have charged. What were you charging for subscriptions then?

Cunningham: Basically, the first multi-client study, I think we charged $1,500 each for the study on the impact of the recession on EDP budgets. We had about 15 clients, something like that. Then on the remote computing services, or the remote batch study, which I did in partnership with a guy called Bob Field, who's a brilliant guy-- I think we charged $3,000 and had about 12 to 15 clients.

Then we started a subscription service in 1976, which was the MAP [Market Analysis Program], which was $12,000 a year. We added a CAMP [Company Analysis and Monitoring Program] the year after. That was $6,000 a year. Our billing rates for custom work were I don't know, $300 a day, I think. And for analysts, it was about $100 a day.

Grad: Later on, I'm going to go back and track what your revenues were and so forth. But now I want to move ahead more to the management decisions. How did you market your services?

Cunningham: I got on the phone and called people. And then the other thing I would do is get on a plane and travel around, basically which I did for almost the whole of my business life. Because my view was you can only do business with people on the telephone once they know you. Remember this, I'd done some selling, but I'd never been trained in it. Basically my method of selling usually was I'd turn up at your office and I'd say, “Hi, Burt, are you interested in remote batch services, distributed data processing, or whatever it might be?” And you'd say, “Yes, I am, actually, because that's the topic of the moment.” And I'd say, “OK, well we've done this study, done the research and here's a couple of charts from it.” And I'd put up a couple of charts. And typically what would happen, I'd just lay them out. And I wouldn't give them to you. I'd just lay them out in front of me. And I would very often I'd see their hands start moving out, because I'd have them upside down for them. I'd have them in front of me. And that was my sales technique.

Grad: So for example, you mentioned those multi-client projects. Did you personally meet with each of those clients to get them to sign up?

Cunningham: Some of them I didn't. Some of them I'd known, like Computer Sciences, IBM. But the others, yes, I had to get on a plane and travel. I spent travel money right from the start. There was no marketing. I did know that you sent press releases to the media. That's how I got that article into the Wall Street Journal. But that was the extent of my marketing.

Grad: When did you hire your first people?

Cunningham: I hired a lady, Randi Paul, now Haran, who had worked with me at Quantum Science Corporation. I hired her at the end of 1975, beginning of 1976. And she actually worked off and on for me for the next 20 years. And we had a desk for her and we had an office in Welch Road. And we had one of those desks-- I don't know if you know them, but there's no divider between them. So I'd be one side of the desk and she would be on the other side. And we worked together. She was my first employee.

Grad: It's called a partner's desk.

Cunningham: Partner's desk, exactly.

Grad: Did you hire more people over the next few years?

Cunningham: Yes, we did. In 1976 because our revenues went from like $80,000 to $300,000 to $700,000 to $1.5 million in three or four years. So I hired two or three people that I'd known at Quantum Science. They had begun to decay, and people were separated. And so they would call me and they'd say, “Hey, Pete, I'd be interested in coming to work for you.” And typically, I'd say sure. What can you do? And they'd say what they could do. But they had to be in software and services. I wasn't interested in the technology side of things. I hired a Walter Smith, who was a really great guy. Then Mike Burwen came in, who had been head of Quantum Sciences marketing. I hired Stan Mantel who had been in the technology business. I think he was in the CIA at one point in time. But he'd been the general manager for Ampex. And I hired him in1977.

Grad: So by 1977, 1978, did you have five to 10 people?

Cunningham: Oh yes. By 1978, I had about 10 people. We'd moved out from Welch Road to San Antonio Road in 1976. That was kind of an interesting place-- no air conditioning. And summers were pretty hot. I hired Doris Gottschalk. And actually, that was an interesting time, because we were growing very quickly revenue-wise. 1978 was a very seminal year for us. Let's

see we did $87,000 in 1975. We did $300,000 in 1976. We did $700,000 in 1977. And we did $1.5 million in 1978. And I think we did $3 million in 1979.

In 1978, a guy came to me who had worked for Quantum Science in England and said that he'd like to set up a UK office. And I said, OK. That was actually a big mistake. It turned out, over the next three years, that the UK office was incredibly unprofitable, badly managed, and they did all kinds of things, like going out and buying very expensive cars-- Mercedes and things like that, and spending a lot of money, which they essentially didn't have. And I was naive enough not to really track it down. I'm a pretty trusting person. Anyway, that really hit us very, very badly during the later part of the 1970s, when we really were on a roll. We had opened a New Jersey office and Ed Metz came on board to join us.

We also decided to run a user program, which was directly in the same space as Gartner. We did some of the same things-- residual value analysis, for example. And we really had a program going. But Gideon, again, went out and got other people's money, funded the growth, built a sales force, and a sales organization. And we really couldn't do that; we didn't have the money to do it. And this was especially so, since the UK operation suddenly sucked half a million dollars out of our cash, and we didn't have any investment money available. So that was really the first tough time the company had.

Grad: Did you set up any management structure? So if you're close to $3 million in 1979, you had to have more than 10 people. You must have had 20 people or so.

Cunningham: Oh, yes, absolutely. It was growing pretty quickly.

Grad: My question is, tell me how you organized from a management standpoint. Did everybody report to you? Did you have an operations person? How did you structure your business?

Cunningham: Very good question, actually. Mike Burwen, I think in 1978, we made him vice president of marketing and sales. So he ran all marketing and sales. And then Stan Mantel when he came in, I had him run operations, which was all the research operations. And those two reported to me. We had Warren Halperin, who was a Harvard MBA as our chief financial officer—he was a really good guy. So we had a pretty dynamic team. And then we got this guy in the UK to work for us who reported directly to me. So I had about five people reporting to me. Again, I was never in the office. I was always on the road.

Grad: But that's what I was going to ask you. Were you on the road selling? Or were you on the road presenting? What were you doing on the road?

Cunningham: Selling and presenting. Because in our subscription programs and particularly in the software and the services market research program, a component in that was every year we did an annual presentation. And that was always done in the spring time. Because we'd finish the work in the winter and then we'd develop the forecasts. People do their long-range planning in the spring time, typically. And so we would deliver our forecasts in time for them to put that into their long range planning for the software and services markets. My job basically was to go out and to deliver the presentations. I'd go from city to city. I'd sometimes do two presentations a day.

Grad: That's exactly what I was going to ask you. You're on the road. You're presenting. Who's making the business decisions, the management decisions on running the research projects?

Cunningham: I did hire some really good people. My problem in a sense was not being able to keep the people for a variety of reasons. Some of them went off to start their own companies. Walter Smith eventually went off to start his company. Mike Burwen went off to start his company. Russ Nathan in England started his company. Graham Kemp went to start his company. So we spawned 10 different companies over the years. Because fundamentally what they did is they came in, they saw how we did business and if they had any business goals they would want to start their own company. For instance, Walter Smith was a Harvard MBA, and he wanted to run his own company. Mike Burwen was an MBA, and wanted to run his own company.

So we lost some of the key people to that. And the other thing was that our structure wasn't very clear. And we were trying to do too many things. I used to do presentations where my last slide would be a picture of the camera. And I would say, focus, focus, focus. Don't try to do too much at the same time, which a lot of companies try to do. If they were a software product company, they'd try professional services; or perhaps a systems software company would try to get into applications or something like that. Remember, the industry was exploding in the 1970s. New companies were starting. It was a phenomenal time.

But we also were trying to do too much. Something new would come up, and we'd start a new program. And we'd often lose that. We would also lose people to our competitors-- IDC, Dataquest, and Gartner. Gartner over the years, would ask, "How much is INPUT paying you, $100,000? We'll pay you $200,000. So I mean, they could buy our people, because eventually in the 1980s they had much more resources to play with. And we'd also lose people to clients-- Computer Sciences, EDS. Because market research was just becoming something that companies did. They didn't do it in the 1960s. Then they would ask why should I do marketing and market research? But as companies got bigger, more professional, market research became something that they had budgets to spend on.

And they needed people to do it. And we had trained people. We trained them in structuring interviews, in carrying out interviews, in analyzing data, in producing analyses, and in delivering it in formats that people could digest. So we had a very high turnover rate in our people, which was a problem.

Grad: One question I was really getting at-- something you raised earlier-- was your personal management style, your people style. Was that a factor in this high turnover? Or was it just the nature of the business?

Cunningham: No, it was a factor. And one of the things was that I was traveling so much. And one of the things that I heard on another Commonwealth Institute broadcast on PBS at one point in time was that traveling makes you irritable. Jet lag makes you irritable. And it, in fact, it affected my family as well.

I would fly off the handle very, very quickly, and just not realizing that it was because I was tired. I'd do stupid things on planes-- fly from California to Europe and then back to the East Coast of America and back to Europe; and then the following week I'd go to Japan. I mean, you can't do that. It's a tremendous stress on your body. And it makes you irritable. And so having that cold kind of process anyway, I'd say if you talked to people they would say I was a very difficult person to live with.

Grad: OK. Let me take the next two steps. And again, I'm trying to make sure we cover at least the scope of all you've done, which is tremendous. Without details, name your five most significant clients during the 1974 to 1980 period.

Cunningham: Computer Sciences, EDS, ADP, IBM, Control Data.

Grad: Control Data became a significant customer?

Cunningham: Oh, yes. Remember, they ended up owning the Service Bureau Corporation from IBM. And they actually started to build, under Price, a very strong services company. Also remember they had PLATO for computer related education. They had Ticketron. They had a bunch of stuff. They had still Arbitron. So they had a lot of services. People tend to think of them as a supercomputer company. But they built a very strong services business.

ADAPSO

Grad: I would like you to talk about ADAPSO. Do you need to take a break to take a drink or anything like that?

Cunningham: No, I'm fine. Do you want to take a break?

Grad: No, I'm fine. I'm a camel. I can keep going indefinitely. I learned that in meetings. If I could hang out longer than everybody else, I'd win.

[LAUGHING]

Cunningham: Hey, you know, that's exactly right. In fact, somebody called me a camel one day-- a guy, who worked for me when he had to go to the bathroom every 10 minutes.

Grad: How did you first get involved with ADAPSO what were some of the things you did?

Cunningham: I think I first came across ADAPSO when I was at Quantum Science Corporation. And I think QSC had done a study for ADAPSO-- maybe one of their early surveys. And then they lost it to IDC. And IDC did it until 1978. But I started to go to the ADAPSO meetings, pretty well straight off the bat. The reason I went is that my prospects and my clients were there, since they were primarily software and services companies. Later on, they became more the big aerospace companies and manufacturers and stuff like that. But at the time, they were mostly small companies. So I started to go to the ADAPSO meetings. Jerry Dreyer, I think, was the chief executive at the time. I always made a point of saying to Jerry, “Would you like me to make a presentation at your annual conference? I'm happy to do that.” And they often took me up on that.

A few years later, I said, “Look, I'd like to bid on your annual study.” And IDC was a mile wide and an inch deep. They did all kinds of stuff. But I said, “You know I just focus on software and services.” I talked to Jerry and I made a presentation. Larry Schoenberg was in charge of the committee that evaluated the proposal; they basically worked with the company that was going to produce the report. But the report that IDC produced was really not a very high-quality report in my opinion. And Larry agreed with me.

So anyway, I made a pitch. By 1978, we were in our fast-growing period. And we had these companies-- CSC, EDS, and IBM and ADP. And I think Frank Lautenberg or someone else had become chairman of ADAPSO at the time. And so I knew some of the people that were involved. And at that time, when I went to CSC or EDS or ADP or any of those companies, I met with the managing board: Ross Perot and Mort Meyerson of EDS; Bill Hoover and his guys at CSC. Frank Lautenberg, Henry Taub, and Josh Weston of ADP--- I knew all those people and it was fun. I guess Larry may have asked some of them, what do they think about this company, INPUT? And he had received a good report, because we really were focused on the future of

the software and services industry. And our forecasts were turning out to be accurate. And in 1978, ADAPSO gave us the project.

And it wasn't just the report. We spoke at the conferences and for a lot of companies, getting the credibility of an independent research organization producing data and information that showed the growth of the industry at a time when a lot of people didn't believe it. ADAPSO also started to do a financial analysts conference in New York. And I used to go up and deliver the presentation at the financial analyst conference in the 1980s as well. And that was really, again, important as we were an independent organization that was doing the study that seemed to know what they were talking about, producing this data that was useful for the public companies and those companies that wanted to go public. Remember, in the early 1970s, hardly anybody covered the software and services companies and there weren't that many to cover.

Grad: I think the first time one went public in the 1970s was when Cullinane went public in the late '1970s, maybe 1979 or 1980. So at that point, there were only a few public companies there…those that had gone public in the 1960s.

Cunningham: That's exactly right. One of the best decisions I made was that I bought Computer Sciences convertible $100 bonds at $39. And they went up and they got converted. And I used that money as a deposit for my house. That was about the only deal I ever made in that regard. But the services and software companies in the 1970s were second-class citizens, basically.

Grad: Absolutely. Everyone in the industry views that the Business Week cover on the empty computer that I guess, John McGuire from Software AG and John Imlay from MSA got Business Week to do that. And that sort of put the software companies on the map. And about that time was when Cullinane went public. It was a real bridging point, a changeover about the end of the 1970s, the beginning of the 1980s.

So you just start really becoming the representative, doing the data and starting to speak for the industry at the end of the 1970s. Is that fair?

Cunningham: That's a fair comment, yes.

Grad: Let's stay with ADAPSO into the 1980s. You continue to work with them. You continue to do those reports. And that gives you a certain amount of visibility, I assume?

Cunningham: Yes, while it was never a profitable project, there were two things about it though. In a sense I felt that it was a corporate responsibility to do it. In other words, the industry needed to have this done. It needed to have representation. I'm not saying it was pro bono. But

I remember having this discussion internally when people would say, why are we doing this? It doesn't make money. We're growing fast. We've got all these companies. There are problems with ADAPSO. I mean, Larry Schoenberg was always a very difficult man to work for in this sense of doing the study. And it wasn't necessarily me. It was the people that were working on the project found it very difficult working with ADAPSO. So internally there were people saying, why are we still doing this? Let them do it themselves. And I said no. I think it was very important for us to keep it.

The thing about the ADAPSO study was it looked backwards. It said, this is what happened last year. So I always felt it was very important to have a baseline to work from. So the ADAPSO study, combined with the research that we were doing on our forecasting, really gave us a sound database. And what we always used to do in our reports is that each year we would do a reconciliation. We would say look, client, this is what we said would happen last year. This is what actually has happened. And these are the reasons we think there's a difference. And people began to really like that, because it gave us some credibility. Whereas there were a lot of people saying this is going to happen. And then you'd ask them, well, what happened? Didn't you say something different last year? Oh, well, and then they would sort of skate around it. But we always said you've got to do a reconciliation.

So, we went on through the mid 1980s. 1986, I think, was the last time. But we also got involved in discussions like what's going to happen with the micro? We did a presentation in 1979 to the ADAPSO committee on the whole mini-micro market. Most the ADAPSO companies at the time were mainframe oriented. And then it was the whole issue of what's going to happen with the mini systems. And then particularly what's going to happen with what we called the micro computers. It didn't become the personal computer until the early 1980s, when it killed time sharing.

One of things that we had predicted in 1979 and 1980 was that certainly by 1982 time sharing was going to be dead. And it did. It dropped off the cliff in 1983 and 1984. Some of those presentations were very important.

Another presentation, which we did a little later, was on the whole issue of systems integration. ADAPSO had a professional services unit as well as processing services, and software. And then the whole issue came up with what they should they do about systems integration. And professional services wanted to keep systems integration as part of their bailiwick. And yet companies like Martin Marietta, Electronic Data Systems, and Andersen Consulting, people like that, some of the bigger players, wanted to have a separate systems integration unit. And so one of the things we did was present to the ADAPSO committee what we felt was the differences between professional services and systems integration.

And of course, the huge difference was that in systems integration the vendor takes responsibility for the hardware. Professional services typically would provide programming, consulting, analysis, support-- all those things, but no hardware responsibility. In systems integration, the whole concept was that the vendor would take responsibility for the hardware and the software and the support and deliver a complete system.

Grad: I think they did set up a separate integrated services unit and it became a very potent group with CSC and CACI and a bunch of the others who become very successful players.

Cunningham: And it actually led to what eventually became I think the downfall of ADAPSO in many ways. It was the start of the very big companies, particularly McDonnell Douglas If you think about it, we haven't talked about them. But there were a whole bunch of other companies that were clients of ours-- that McDonnell Douglas, Boeing, Lockheed, Litton, Grumman -- all the aerospace contractors that got into the services business, primarily so they could justify the rates they charged the government. This is tangential to what we're talking about, but it actually was very important at the time. McAuto [McDonnell Automation] built a billion dollar computer services business. They were one of the largest acquirers in the 1980s of computer services companies. And they became one of the largest companies in the industry. But they started basically with that concept that we've got to have a commercial unit because then when we go to the government, we can say, we're charging $10 for this commercially and we're charging just $8, which is a discounted rate for our government business.

You had a whole bunch of those players in the business as well. And they all got into ADAPSO. IBM eventually became a big systems integration player. And the other computer manufacturers that were still left became big systems integration players.

So ADAPSO changed itself in the 1980s. One of things they started to do, which always really annoyed me, was they would give speaking positions at the conference to people who paid them money-- which was like a bit of a prostitution of the event. And I remember because I used to help organize some of these conferences. I helped organize the Second World Computing Services Congress in San Francisco. And if you paid money, you'd be a speaker. What we would try to do is get the best speaker you possibly could on the subject. But, what would happen is that then there was a subject come out on distributed data processing or something like that and IBM would say, well, listen, we pay all this money to ADAPSO, we want to have our speaker up there. So the whole thing started to change. I maintained the contract until I think when Rick Crandall came in, which is some time in 1980 something and Rick was the last of the Comshare guys. Comshare had been a time-share company and then it became a software company. It must have been early 1980s, I think, when he was president of ADAPSO. He was

still an independent guy. But after that, you kept getting some of the guys that were from the big companies who had come in. So the Association changed.

And I always maintained with ADAPSO is that if you had the small companies, you'd always have the big companies. But if you oriented yourself to the big companies, you would lose the small companies, which of course I think is what happened in the 1980s.

INPUT: 1980-2000 Client Stories

Grad: Let's talk about the period of 1980 to 2000, which apparently was a period of continued growth for INPUT, both in revenue and in staffing. And I'd like you to talk just a bit about a few of your key clients. And maybe tell a story or two about them. I have a list of companies here. You can pick the three of these that you'd like to talk about. I have EDS, IBM, Cap Gemini, Siemens, Arthur Andersen/Accenture. From those, pick which ones you'd like to tell about.

Cunningham: I could certainly tell some stories about all of them, yeah. Let's start with Accenture. They started off as a unit of Arthur Andersen. They weren't a separate company. And I delivered a speech, I think it was an Alex Brown conference in the 1980s. The Alex Brown conference became the conference that everybody in the software and services industry had to go to. Al Berkeley was a wonderfully smart analyst; he was the one that really pulled the term systems integration into the lexicon. In the speech I talked about the future of the industry and what was going to happen.

And John Oltman came up to me afterwards and said, "Pete, you've got to come talk to us." I said, "Why?" He said, "Well, at Arthur Andersen there's a group of us led by Victor Millar and Cornehlsen I think it was and a couple other guys. We want to take the consulting operation and make it a separate entity. And this is a big deal, because all the tax and audit people don't want that to happen." Andersen Consulting was already getting to be a pretty big company. In fact, there were a whole bunch of people in ADAPSO who were really opposed to the accounting companies being in the software and services industry. They would say, "They're auditing this company and then they turn around and do the systems development for them. They've got an unfair advantage." It was the same way that a number of the software and services companies were against IBM and the other manufacturers [being in the software and services business] because of the same issue.

I went to the Hancock Tower in Chicago, and met the management committee of Arthur Andersen and presented what I thought the future of the professional services consulting operations were going to be and the future of the industry. Apparently that went down very well.

And as a result of that and of course a lot of other things as well, they separated off and became Andersen Consulting.

And I would say that after 1980, they became one of the biggest clients we had, and a wonderful group of people, some very, very smart guys. And Victor Millar when he left Andersen, eventually went on my board and stayed a friend over all the years. He actually would be a fantastic person to do an oral history of, because he was involved in that whole process. They chose the name Andersen Consulting, but fundamentally they were a systems company. My son actually went to work for them when he graduated from the University of Virginia, because I told him that the thing you'll get out of Andersen is fantastic training. They send him off to Saint Charles for initial intensive training. And then even when you've left Saint Charles, they were one of the few companies that really invested in training their people every year. One month of the year you went and got trained. None of the other services companies did that. They may send you on some training, if they thought they were going to get billings from it. But Andersen Consulting would actually send its people to get trained. I think that was a key reason for their success because they built these “androids.” I mean, they brainwashed them, sure. But fundamentally, they built the staff. And they had them on programs which promoted them, educated them. They made them more valuable. And I got to know the people in the UK.

They were also an international company. Tangentially, one of the things I'll say here is that most of our clients in Europe were actually subsidiaries of American companies. We had a few international clients: Cap Gemini and Siemens and ICL and a company called F International in the UK that I dearly loved. But primarily the people we worked for were subsidiaries of US companies. So we did a lot of work with Vernon Ellis and his people [from Andresen Consulting] in the UK. And then as time went on, we made presentations to Andersen Consulting about getting into the systems integration business. Because originally, they actually had done the first systems integration project ever-- a Strategic Air Command system that was done for the USAF in the 1950s. So they actually were involved in the first systems integration activity. So I was very heavily involved in trying to push them into systems integration-- the two magic words, systems integration. And then beyond that time, I also remember they'd have these partner meetings. They had one in London and I had to go in and present to the whole gang about what should Andersen Consulting do in the future. And my thing was they should get into the operations business, into the outsourcing area-- not so much from the platform operations, but from the applications operations side. Because if you don't do that, you're going to get cut out of companies that do go to an application services provider, like an EDS or a company like that.

As a result of the meeting, they formed study groups and each had to say what share of Accenture's [they had changed their name by then] revenues were going to come in five years time from outsourcing, systems integration, professional services, consulting, et cetera.

At that time, they weren't in the outsourcing business. And they said that the largest component of their business in five years would be coming from outsourcing. So that was a huge, huge change. Anyway, so that's my Andersen, Accenture story. And I think that it was just the basics of the company, getting great people, training them, integrating them, getting them to work together, having responsibility—it's a good role model for other companies.

Grad: Tell me about IBM. That's an interesting one.

Cunningham: Oh, phenomenal. My first exposure to IBM was when they were one of my first clients, actually. And there was a guy at corporate market research in Armonk – Loren Wood -- who was a supporter at a time when software and services to IBM was in the noise. My first presentation in Armonk must have been I would guess 1976. And this guy said, "Hey, Pete, you've got your annual presentation. Come and deliver it." And so I turned up at Armonk. I'm down in this room, next to the boilers in the basement in Armonk. And it's dark. And I'm putting up my foils. And there's basically nobody in the room. Occasionally a couple of guys would come in. And I think they mainly went to sleep because the room was so dark. And it was hot because it was next to the boilers. And so that was my first presentation.

But anyway, this guy kept at it. He kept getting the INPUT stuff, getting the material. He distributed it. And gradually it worked-- we gradually worked our way up in IBM to the extent that in 1995 when IBM's stock went down below 50, the day it went down below 50, I had a three-hour meeting with John Akers, the chairman, John Thompson, the chief financial officer, and others on the future of the industry—a very interesting conversation. So we went from being in the basement to the boardroom. It took us 20 years to get there. But we did.

And yes, we were pretty heavily involved in a bunch of things with IBM. Actually, one of the most painful things, I think, was looking at the micro computer, personal computer operating environment. There was a grey-haired director of IBM—Spike Beitzel. He was a very, very charming man. Anyway Akers, I think-- I think it was Akers-- gave him this committee and said that you've got to look at what we should do in the microcomputer software, personal computer software area. And I always remember this presentation to this committee that basically said, Microsoft has got x number of programmers-- I can't remember at the time. It was probably 20, 30, whatever it is. You have 1,000. This was when the OS2 versus Windows battle that IBM was going through with Microsoft, The whole room was deathly quiet because I was in favor of staying with OS2-- even though they were saying, look, the OS2 is not going to make. I'd say, "Look it's a long game. If you treat software as independent from your hardware, and you play that game, you've got much more resources than Microsoft." But anyway, IBM eventually gave it up. And OS2 went away.

And then we also got involved in working for Earl Wheeler for a while. He had three software teams. And they would bring me in every quarter to review their plans. I mean, it was again, it was painful. Because at the time, their software business then was about a $12 billion business, I think, maybe a little less than that, $8 to $10 billion or something like that, big business and very profitable. CICS that you know about more than anybody else was an incredibly profitable business. And so they'd say, “Oh, this is what we plan to do.” And I'd say, “Well, why don't you do this?” And they'd say, “The hardware people wouldn't like it.” And I'd say, “Well, listen. Every time you look at software, you should ask yourself-- because Oracle was growing fast by this time--what would Oracle do?“ And I'd say, “This is what I think Oracle would do.” And it was really distressing to these people that they didn't have the freedom to run the software business as a software company. They were constantly hemmed in by the hardware mentality that was still present in IBM until Gerstner got in.

Grad: This is something that really resonates with me, Peter. Because I was running a software operation in IBM up until I left in the late 1970s. And this was the problem back then also. We had to justify each of our projects on how much hardware it would sell. CICS was one of my products. And to go in and not be able to make the best story I could for CICS but to tell how many boxes CICS was going to sell was to me totally, totally wrong. We still sold a hell of a lot of CICS. But the story I tell -- I don't know if it's accurate or not -- but up until 2005 or so, CICS had more software revenue than any other software product in history. I think eventually at that point Windows may have taken over from CICS as the software product with the most revenue.

Cunningham: But that attitude continued in IBM into the 1990s.

Grad: But to me, it was a fascinating story. And I know there were a number of people up to when Gerstner comes in and turns the company around, felt that IBM had the incredible opportunity all those years and never took advantage of it. Software was just treated as a poor relation.

Cunningham: The thing that I used to tell the IBM people is that you denigrate the people in those groups by treating it that way.

Grad: Of course. That's fundamentally one of the reasons I left IBM in 1978.

Cunningham: Can I do one more brief thing on IBM, just to show you how that attitude continued? I made a presentation in 1993, I think it was the IBM Computer Services. Hal Topper and before him Sam Albert used to run the Computer Services Conference at IBM, which became the conference you had to go to.

Grad: It was called the “Love In.”

Cunningham: Lovely. Hal Topper and Sam, God rest him-- I made this presentation in front of this conference in 1993 that the future of the networks is the Internet. And because nobody owns it, it's got these characteristics. And I said this is absolutely the future. And a guy named John Patrick came up to me afterwards and said, Pete, “You've got to do something for us.” I said, “What do you want me to do?” He said, “I've got to make a presentation to the IBM Management Committee on why we need to be in the Internet space. But I have to say how much hardware is going to be sold, right? This is 20 years after my first presentation. So we had to do a project. And I had an employee, Angela Hey, a brilliant Ph.D. And we did a project in early 1994 to forecast what would be the hardware sales related to the Internet in the year 2000. And we predicted that in the year 2000 there would be 200 million people on the Internet. And the first response from IBM was there are not that many PCs in the world. So how can there be 200 million people on the internet in the year 2000?

We actually upped that number to 250 million people the following year in 1994. And I believe that actually it was about 250 million in the year 2000. And then we predicted the various categories of hardware that would be related, and the software, and all the other kind of things. And John Patrick went to the IMC and actually got IBM to move partially into that world.

And the other thing I told IBM at one of my last presentations after they asked, “What should we be doing? What industries should we be in?” I said, “You should be in the consumer industry.” They said, “Oh, we can't do that because we'd be in competition with our customers.” I said, “Yes, but the big market in the 2000s is going to be the individual. “ And of course, they went the other way.

Grad: Tell one more story about one more company. You want to pick EDS or Cap Gemini?

Cunningham: Well, I loved going to EDS. I have a huge admiration for Ross Perot. I loved going to Dallas. It had UCC which was Sam Wyly's company and then with Sterling Williams Sam created Sterling Software and later Sterling Commerce. And there was EDS. And there was AMS. And there was GTE Data.

The lovely thing about the people in Dallas is, particularly those at EDS, they were very courteous, very definite. You could say to somebody from EDS, this is what I can do. They'd say, how much will it cost? And I’d say this is how much it is. And they would give me a check. I actually had a guy, a Texan, give me a check at a swimming pool where I only had a swimsuit. I didn't have anywhere to put the check. But I really love the way Texans do business.

And EDS-- I used to love going down to Forrest Lane and going to Ross Perot's office; he was always very courteous, organized. And his room is full of American memorabilia -- the flags, the statues, just wonderful. But he doesn't look backwards. He looks forwards. And then Mort Meyerson and Gary Fernandez -- he had a wonderful team of people. Gary Fernandez used to be the corporate marketing executive. And the thing that Ross Perot would say, “OK, Pete (and he’d look at his watch) it's time to go to lunch.” And so we'd go down. We'd go down to the basement. We'd go into the canteen. He'd stand in line. I'd go get my stuff in line. And then we'd go up to the payout counter and he would pay, taking his turn. And then we'd walk around and we'd just go sit down and start talking chatting to the people there.

And I always remember one time I was at one of their management conferences, and there was this like six foot six ex-Marine there who was running one of the EDS businesses. And I said, “Well, how did you get to EDS? He said, “I was in Vietnam. And I got out of Vietnam. I was a captain, been on the front lines there. And I came back to the United States. Nobody wanted to talk to me. I couldn't get a job. I had a family. So things were pretty tough. And I talked to a friend of mine who was an ex-Marine, also. And he asked what I was doing? And I told him that I haven't got a job, but was looking for a job. And my friend told me to call EDS. So I knew nothing about computers, nothing about anything like that. And I called EDS, and they only asked me two questions: what was your rank? Were you honorably discharged? And I got a job. And to the end of my days, wherever Ross Perot goes I will go.” There was that kind of loyalty in EDS, although I think they lost a bit of that when they moved out to Plano.

I call Plano the monument to the mainframe. I don't know if you've ever been to Plano, but it's unbelievable. And the thing that Ross did was that he didn't have a golden corridor. In other words, there was no corridor that you went down and here was Gary, and here was Mort, and here was Ross, They were on different floors.

I'd only usually have two minutes with him. I'd call up and say, “I've got a meeting with so-and-so and so-and-so in Dallas. Would you like me to drop by? “And he'd say, “Oh, yes, Pete, come in and say hi.” So most often, I'd go in to say hi. And he’d say, It's good to see you. What do you think is happening? And I would just take two minutes, and then he’d have to go. He always answered his own phone. You called. He'd answer his phone and say, “Hi, Pete. What can I do for you?” I’d tell him what I was working on and sometimes he would just say, “Nope, that's not something I'm interested in, Pete. Nice talking to you, bye.” Just 20 seconds. So to my mind, Ross Perot was one of the great, great characters in our industry, and he built an incredibly successful company.

We were also involved with General Motors, doing some research on which company they should buy-- CSC, ADP, or EDS. And our analysis was that EDS could be most helpful to General Motors. And that's a whole different story in how General Motors took $4 billion of IT

expenses and turned it into $4 billion of revenues. And with the market multiple on that revenue, they basically turned an expense into a $20 billion valuation company.

Grad: That was really brilliant because they had been spending so much money already in that area. And they just turned it around and made an asset out of it.

Cunningham: Absolutely. And also the other thing that EDS would do for them, which we told them, was that each division in General Motors wanted to do its own thing. So you had total IT chaos, really. You had no coordination. And what the General Motors board couldn't do is to say to one division that it's your systems that everybody else is going to use. There would have been a revolution by the other divisions. So getting EDS in as a catalyst enabled them to consolidate and to reorganize their systems in a way that they would never have been able to do internally.

Grad: It was a very smart move. And then it was spun back out again, and Ross started his own company with Perot Systems.

Cunningham: Well, that's because he got a bit pissed off with the General Motors board. I mean, basically, I think he wanted to be President of General Motors. And it would have been a whole different ball game if he had, because he would have had a much different approach to the whole business of producing cars.

And at the time, in the 1970s and the 1980s was when the Japanese were saying this is how we're going to rule world. Remember that? And the car sales for the Japanese companies were just climbing, and General Motors was just tanking. Well, Ross Perot is a real American.

INPUT: 1980 to 2000 Business Operations

Grad: You've been talking about all the companies that you advised and the counseling you gave them. I would now like to have you to talk about your business, how you ran your business in the 1980 to 2000 time period. Let me start with financial. By the end of the 1970s, you were up to around $3 million in revenue. What happens during the 1980s and 1990s?

Cunningham: Well, that's a very good question. We actually really didn't do very much. The company would do $5 million one year and $4.5 million the next. In the 1980s particularly, we had a lot of difficulties. And one of the reasons was that we had no financing. We had no money. So we really lived hand to mouth.

Grad: Why were you so adamant about not getting outside money?

Cunningham: I didn't know how to do it.

Grad: What do you mean? You knew all the people at Broadview Associates and venture capital firms. Couldn't they have helped you get money?

Cunningham: I had Bernie Goldstein [from Broadview Associates] on my board for a number of years. But to get money, you've got to have the financials. You've got to have the financials to show that you could do it. And I think we could have done it at the end of the 1970s. But then every now and again, there'd be a recession in the computer industry. And the first thing they cut was the market research budgets.

Grad: Peter, I hear you. But I'm not sure I buy what you're saying. Let me ask it differently. During the period of the 1980s, it is my recollection that the Gartner Group continued to grow dramatically during that period of time.

Cunningham: Absolutely.

Grad: So you have a model that you could have shown people. IDC was also growing dramatically. There were a number of other market research companies that were growing dramatically. Were you limited because the company was you and you were the only face to the clients? Or was there some other reason?

Cunningham: I don't know really. Frankly, it wasn't my mindset. I kept thinking we could do things ourselves. I've always been a pretty independent person. So I think that the times when we could have done it, I didn't want to do it. And then the times when I wanted to do it, or could have been persuaded to do it, we weren't in the right financial position to do it.

I'll always remember that Dataquest called me one day and said, “Look, we'd like to acquire you.” I said,” I don't think I want to work for anybody else.” I think that may have been part of it. I didn't want to work for anyone, even a financial organization. Gideon Gartner was kicked out of Gartner, right?

Grad: Yes and I was wondering to what extent your having been kicked of that company back in the late 1960s, or early 1970s had made you gun shy.

Cunningham: I think it did. And I think that the combination of that and then hearing about Gideon was a factor. The venture capitalists and investors did not necessarily have a good vibe

at the time for sure. Remember, I'd see people get acquired. I had seen people like Charles Wang with Computer Associates really well; I saw how they acquired companies, and what happened to them, and people being laid off and all that kind of stuff. One thing would have been to sell the company. We could have probably gone to Gartner or to the Yankee Group or somebody and sold it to them or to somebody else. And we kept getting inquiries. But I kept thinking we could do better than we were doing.

But my problem was that I really wasn't managing the company. I was on the road. And they'd come in with these plans. And I think people would tell me what they thought they wanted me to hear, as opposed to what was reality. We would miss our plan. And I'd say, OK. .And so it was a complicated issue. And the other thing was the international activities we had going on. But I don't have a good answer to the question.

I'd never gone back and looked to the financials until this oral history interview came up. And we had a good reputation. And we had a visibility. And people would join us and say, well, how big are you? And they'd think we were a $20, $30 million dollar company. And we're actually a $5 to $7 million company.

Grad: Let me ask one other related question. Were you personally pulling in a quarter of a million, half a million a year or not?

Cunningham: No. No. I think my salary in 1980 was like $75,000 or something like that. And I think by the end of the 1980s, by 1990, I was probably taking $175,000.

Grad: Let me challenge you on something. I think you loved the ability to be a consultant to all these big companies.

Cunningham: I did.

Grad: And I think you got a special kick out of doing that. Now you couldn't do that without the data, without the information that your people were collecting.

Cunningham: Correct.

Grad: But I'm guessing that where you got your kick was in the presentations. The ability to be in front of all these very important people and really be a terrific consultant for them, and give them great advice.

Cunningham: But not just the big companies. I used to work with Bob Foreman at IMI. I actually used to enjoy in a way more working with the small companies than the big companies. Because what I really liked was telling people about the future of the industry and what's going to happen, why are they going to happen, what's the impact going to be. That's what I enjoyed. And whether it was a big company or a small company, whether they were important people are not, frankly, I didn't treat them any differently. I treated Bob Foreman the same as I treated Ross Perot.

Grad: That's not what I meant. I also loved being in front of the clients, big or small and basically, showing off how much I knew and how smart I was.

Cunningham: No, no, I don't think that's true about me. It was more really participating in the growth of this incredible industry and being part of it. And I actually never felt that it was about me. I always said to people, look, I'm representing the work that we do. I'm giving you the data and the analysis that we've done.

Grad: Now, come on. You were drawing a lot of conclusions, making a lot of recommendations, and providing a lot of advice and counsel as to how they should be going forward, weren't you?

Cunningham: Initially I did not. And then people would say, “Yes, but what does it mean?” I'd do this presentation. And they'd say, “Right, you've told us that. What does it mean for us?”

Grad: Exactly. And my point is that that's where I think you made an unusual contribution. You weren't using the rear view mirror, other than to establish ground zero. You were using your own insight and breadth of knowledge to say that this is the direction things are going.

Cunningham: Yes. Exactly. But I had other people who would also do it. At the end the day, we had Wilson Haddow, Denny Wayson and a whole bunch of other people I mean, I did grow a bunch of people who would deliver the same presentations, because frankly, I couldn't do them all. So a very important part of our delivery was to go out and deliver these presentations on the future of Electronic Data Interchange or systems integration or outsourcing or the Internet, or all those things. That was what we did. And I had fantastic time-- and so did the other guys, too.

That was what they enjoyed. And in a sense, until we hired a president in the 2000s, who I didn't get along with in many ways, actually he was the only person who really sat down and looked at the business and said, OK, this is what we should be doing and what we shouldn't.

One of the problems that happened, Burt, was the industry fragmented. At beginning of the industry, there was processing services, professional services, software products. But then, software products started to split into systems and applications. And then systems split into development systems, database systems, communication systems, operational systems. And applications split into the verticals and the cross industry. And there were companies in each one.

And what we found what was going on was we had to keep fragmenting what we did in order to cover this expanding universe. And you're absolutely right about Gartner. Gideon lost money, lost money, lost money, lost money, lost money, really invested, invested, invested, invested, invested as he built his sales and research organization. So he got to a critical mass, and then he went public and then got bought back and went private and everything like that.

We never got to a critical mass. And using our core $5 million to try and cover this expanding industry, we were just getting stretched thinner and thinner. And so then we were not able to deliver to any one component of this industry the full value that they needed. The 1980s and then the 1990s were a very difficult time from a financial viewpoint.

Grad: That's what I want to ask you. Didn't you at some point in the 1980s and 1990s, didn't you just say look, it's too big for me to cover at the size I am, but I don't want to get money from the outside, because I don't trust them. And why don't I focus? I mean, that was the word you were telling your clients. Why didn't you do that?

Cunningham: We did. In 1996, I finally said, OK, we're going to change. We're going to change the business. I was going to do it a little differently, in that the focus was going to shift from being a market research company to being a sales support company. My view is that in any company, you take a picture of the budgets. The market research budget is tiny. Then you've got the marketing budget that's a lot bigger. Then you've got the sales budget. That's huge. That's changing a bit now where people are electronically moving money from sales into marketing-- because of a bunch of reasons.

But in the 1980s and 1990s, that was the structure. And we were getting hit by Gartner and IDC. When we started in the 1970s, Gartner and IDC certainly were more focused on the computer systems. They were focused on the hardware and the technology. But gradually, as the software and services industry grew, they became more focused on software and services. That's why they hired our people. And so we were getting squeezed in a lot of different ways-- by the attenuation, and by the fact that we didn't have critical mass.

And so in 1996, 1997, I decided to change the company to focus on sales and produce what we called buying guides. So we would go out, do research on a subject and then we'd produce a

report, which would then allow companies to address that particular need, say, systems integration in the manufacturing industry, for example. You'd get companies to do objective profiles of what they did in that industry. And then you provided that to manufacturing companies, so they could see what's going to happen. And here are some of the companies that can help me, or that I should talk to.

So we had this concept of switching to the buying guides-- still research based, still analytical, but then ad supported in a way or promotionally supported. And we decided to switch the company over to that. I did a business plan that said it would take two years and cost $3 million to do it.

So I did finally learn that you could go and get money from people. One of my board members said, “Look, I'll lend you $1 million. Why don't you see what you can do with that?” Taking that was a Big Mistake, because it really was going to take $3 million and two years to do it.

And a year into it, in 1997, I was at a French language learning class because I happened to be on the board of a French company, Atos, at the time, representing American investment money. And I got a call from the guy I'd left in charge of INPUT to say, we're going to run out of money. And so in 1998, we were looking at going bankrupt in France, Germany, UK, United States and Japan. So I got very focused then. And that was a very traumatic period to go through 1998, 1999. We had to close all our offices.

One business that we'd started in 1985 was in the Sales lead business. And that was our government operation. And it made good money. It had grown. It got to be about $1 million and a bit. So we basically then cut down, closed all the other offices, got out of the general market research business. And we decided to focus on the government business. We cut the company down to 12 people. And we now had $1 million of business. But it was all on the Internet. We had transferred everything over to the Internet in 1995, 1996, 1997. So we were totally web based. And we had this one group. And we decided we've got to focus on that particular activity.

Refocusing INPUT

Grad: Wow, that must have been a hell of a change for you.

Cunningham: It was traumatic. I mean, we had liabilities to companies, because people paid us money up front. But I'd always maintained, if we ever stopped the business, we would have enough money to pay our debts. Actually, producing the reports that were required was relatively inexpensive. The money we were spending was on the sales, the marketing, the product business development, all that kind of stuff. So we just got rid of all that and just simply focused on completing the commitments that we had.

Grad: One of the things that was so successful about the software products business was the recurring revenue model because of maintenance. This is also true in a number of other areas like processing services or time sharing. It's a recurring revenue model.

You get money every year from people, without a lot of additional expenditures. It sounded in your case is that while you had recurring revenue, you had to spend the money every year in order to get that revenue.

Cunningham: That's precisely correct. Like a magazine subscription, basically.

Grad: And unless you can get to some volume level that's so high that there's all kinds of money floating around, it doesn't tend to be a very profitable business.

Cunningham: Exactly right. And what you need is good management. For 20 years, we didn't have a chief financial officer. We had a bookkeeper.

Grad: Why not?

Cunningham: Bad management on my part, we should have had a chief financial officer. We did eventually hire one in the early 2000s when we just focused on the government business. I'd advertised for a bookkeeper, controller. And I had this guy come in, I think, in 2002 and say, Pete, you need a chief financial officer. And I said, why do I need that? We were only a couple of million [in sales then]. This was after we cut the company down to $1 million in the government business in 1999. And then in 2000, I said I'll take everybody to Hawaii if we do $2 million in business. And we actually did. And we took them to Hawaii. But this guy said, after I told him about the business, “Look, you need the chief financial officer. “And I hired one. So for 20 years, I didn't really have anybody that really coldly looked at what we did and said, “No, you started this business and it's a good idea. But you haven't been able to make it work.”

Because what would happen is that it was me. I kept thinking, right, systems integration. So we should have a systems integration program. Systems operations, so we should have a systems operations program. Internet, so we should have an Internet program. Network Services, so we should have a Network services program. I kept saying we should do this and we should do that, which Gartner did also. But Gartner did it from a much bigger base, because they had the user base that we didn't have.

So we would get 10 to 15 companies, but never got to the critical mass. Whereas, I think a chief financial officer would have said, OK, Pete, we've got to cut this. We've done it for two years. It's not working. Cut it. And that is what we actually did afterwards.

Grad: I would've thought you could have been paid a hell of a lot per day just as a consultant. They would have paid you $3,000, $4,000, $5,000 a day for your consulting skills.

Cunningham: I got up to $10,000 a day. But fundamentally that wasn't building the company. And again, the problem is going out and delivering these presentations. People would say, “Hey, Pete, you've got to come.” Frankly, a number these presentations got to be the planning meetings for these companies. Every company has its planning meeting, right? So they'd have me or one of our guys, Denny maybe, come in and make the presentation to their planning meeting. So it was a fundamentally important part of our delivery to the client.

Grad: You're saying that you couldn't have done that kind of consulting, if you hadn't had all the other work going on?

Cunningham: I believe that I would have lost my value quickly.

Grad: I'm guessing you're wrong. But how to prove it?

Cunningham: Let’s go back to your point earlier. Because I felt that I really knew what was going on, stuff like that, I always felt that I was the deliverer. I was the delivery point. But I had this stuff behind me and I could always turn around and say to people, I'm saying this because here's the data. Here's what I found out. Here's the information I've collected on the periphery of what's happened. Again, it's the data, the analysis, and the knowledge. And take away the data and the analysis, and I'm just going to be a speaker or a consultant.

Grad: It might have been enough. You're a very persuasive speaker. You're a very good motivator. You probably could have just made a lot of money without the company, just talking. But you needed that confidence apparently as having all this data and saying, hey, look, I know the facts. And here are the facts. And that's what I'm basing my opinions on.

Cunningham: Yes, exactly. And then when we changed in1999 or 2000, maybe my view was the model I had is not working. Therefore, I need to change the model. Constantly losing these highly-paid analysts-- they come in, work for two years and then go to Gartner, go to IDC, go to Prime Media, go to some company like that. Turnover was really a problem.

Because each time you've got to go and hire somebody else. And so then the other thing then, I said, I want to get out of traveling around the world. I don't want to do that anymore. And the Washington business was perfect, because it uses all young people, in their 20s. They're data collectors. They go out and collect information on government contracts from procurement offices, contracting offices, program offices, competition, and government programs. It's a database collection activity. It doesn't require a lot of smarts.

It's automated in the sense of the delivery. It's all on the web. We had a wonderful website guy named Kevin Plexico, who essentially saved the company, Kevin was a young man who joined us out of college. I'd like to tell a brief anecdote about Kevin because he was very important to our company. Kevin joined us out of college, early to mid 1990s. And that was when we were trying to convert our database onto the Internet. We first of all went to a consulting company. They were a disaster-- they just couldn't get us there. And then we hired a programmer, a super programmer. And if you remember the programmer in the first dinosaur movie-- Jurassic Park-- there was a programmer in that. And this guy was a spitting image of that slob of a programmer. Anyway, he was a failure.

And Kevin Plexico, bless him, picked it up. He wasn't a programmer, but he picked up a programming book, taught himself FoxPro and started to play around with putting the database up. And he'd come in to me and say, hey, Pete, look, this is what I think we can do. And I'd look at it and say, hmm, that's interesting. How long will it take? Oh, he said, it's done already. So he really saved the company because he put it our database up on the web.

And then so we started to focus on it. And I stopped going and making presentations and I hired a chief financial officer. And then we grew in the 2000s, it just kept moving along. In the 2000s, we grew the company from $1 million, $2 million, 3.5, 6 9, 15, 20. I mean through the first decade of the 2000s, it grew. It was generating profits-- not as much because I still would interfere here and there and start new things going. But fundamentally the business now got to be on a very sound footing with some really good managers. Then I hired a president in I think 2007, who in retrospect, when I really looked at the numbers, did a great job. He really started to focus on profit and not just growth, which was always my focus. He actually started to focus on how to generate profit. We started to get more profitable, started to get more organized, which brings me to the point of selling the company.

Grad: I have questions to ask before you get that sale. You restructured the company. You still kept the INPUT title.

Cunningham: Yes.

Grad: But basically you went into a completely new business from just one small operation in this area. But now you made that your fundamental business. Is that a fair statement?

Cunningham: That is exactly correct.

Grad: OK. Now how about finances? Did you need money to grow that business?

Cunningham: Well, no. OK, there was the previous existence, which was a market research company. Then there was a transitional experience, when we tried to shift to sales support. And then there was this change in the sales support business, but fundamentally focused purely on the federal government.

In the interim period, we had actually received a couple of very big contracts-- one with Oracle, one with another company whose name I forget, another with IBM, which were for the buyer guide process. With Oracle it was how you could use Oracle's database management system inside the electronic business envelope. In the IBM case, it was how you could use IBM systems in the electronic business envelope. Remember, this is the time that we had this concept about the electronic business. Some people say electronic commerce. I prefer to call it electronic business, because you could have electronic retailing, electronic banking, or electronic distribution. There was a whole bunch of different ecommerce business--electronic media, or digital media, you might call it. They were different industries just under the umbrella of ecommerce. And we called it electronic business.

We had a $0.5 million contract, $300,000 contract, $250,000 contract. We had $1 million worth of contracts basically in that space. And they were very profitable contracts. Because what would happen is IBM would support the core research, or Oracle would support the core research; then each one of the companies who wanted to put their position in the buyer's guide, would pay $10,000, $15,000, $20,000 to have their position in the buyer's guide, which we would then distribute to thousands of people, electronically and physically.

Grad: What you would call business-to-business, B2B [Business to Business]?

Cunningham: Correct. But we realized that we wouldn't be able to do the research, couldn't afford to do any more of the research. But we finished those projects. However the money from those projects essentially was the seed capital that we used to then expand the government business. Plus the government business itself was profitable, generating cash.

Grad: What was your revenue model for the government business?

Cunningham: Subscription.

Grad: Who were your clients?

Cunningham: The clients were anybody who wanted to sell technology to the US federal government. Our clients would be every technology company. Each of these companies has has a separate unit. IBM had its Federal Systems Division, for example, which later was sold. But IBM still had a government sales entity. Compaq, Oracle and all the aerospace companies,

Litton, Lockheed Martin. You had all the specialized government contractors-- FDC, CACI, and all the others.

Grad: The government itself was not a client. It was all of the people that wanted to sell to the government.

Cunningham: Correct. That was a beautiful business. And it still is.

Grad: I'm going to ask you explain this further. You grow the business from 12 people to 250 people in a 10-year period and you say you never required any outside financing to do that. Is that correct?

Cunningham: That is correct.

Grad: And you never had to borrow money?

Cunningham: No.

Grad: So you generated enough profit from these buyer guides and these other guides that you put together on the government business that it was self-financing and very profitable. So you had enough cash to build up the operation to the extent you needed to.

Cunningham: Yes, indeed. And then, of course, the other thing we had to do was we had to pay back the $1 million that I'd borrowed in 1977. I'd borrowed $1 million in 1977, which was due to be repaid I think in 2002 or 2003. And we were able to do that.

Grad: So, your margins in this business must have been very, very strong.

Cunningham: They were good.

Grad: What you told me is that you were now able to find a niche where the size of your market was large enough to make your research expenditures well covered, so you had extra floating money.

Cunningham: Absolutely. Cash flow was very, very positive. When we sold the company in 2010, we had $10 million in the bank, no debt. And we were growing 25% a year. And it was a very profitable even though we had competition. We had a guy called Tom Hewitt who had started a company called Federal Resources. They were a very good competitor. And Tom sold his company to Prime Media, who promptly ruined it. And then I got Tom to join our board, along

with a guy called Jed Laird, my daughter, Rachel, joined the board as well as Marianne Hirsch. We built up a really strong board for INPUT in the 2000s.

Grad: So this is a completely different kind of company. Now what were you personally doing during that 10-year period?

Cunningham: Basically, I didn't make any presentations. One of the reasons was that I actually moved to the Cayman Islands in 1996. And one of the reasons was I wanted to see if you could run a company electronically. All I had was a business card and the only thing it had on it was my email address. I'd tell people at presentations in the 1990s that, all you need to know is my company's name is INPUT and my initials are PAC. And when you go out of here, you'll all remember how to get hold of me. You won't remember my phone number, my address, just that.

So I was heavily into the web. I worked with Kevin Plexico, pushing the increased use of the web-based services and developing a new product. Our average sale went from $10,000 to $30,000 over that 10-year period. The number of companies we serviced went from 400 or 500 to 2,500. And I'd learned thankfully at last, don't interfere. Although, I still did when I went up there. But fundamentally, Kevin ran the operation, ran the unit. It was his people. The sales people reported to him. And we did split it up later on. But fundamentally, initially, that unit was bonded together. And one of the things also is that we had very, very little turnover. It was a young group. We trained the group. We did what Accenture did with its people. We really invested in the young people. We didn't hire people coming out of IBM and stuff like that. We built our own people.

So it took me 20 years to learn how to do that. But it paid off in spades. And we had very low turnover in key people. And in fact, when we sold the company, there was virtually no turnover. I mean, today, it's years later and the key people that were there then are still there now.

Grad: Did you have any failures during that 10-year period? Or was it pretty much a stream of successes?

Cunningham: We did have a couple of failures. And typically, that was things I thought we should try to start. Government contracts are huge in the technology space. I think the top five to seven contracts that we were looking at at one point in time, in aggregate, were $50 billion. The awarding of contracts tends to affect stock prices. So one of the ideas we had was that we would develop a forecasting system because we knew the industry. We knew the competitors. We knew the programs. We knew the agencies. We just kind of knew who was going to win and who wasn't. We knew the political things. There was all this data, information, knowledge kind of structure that we had. So we knew. Our thought was that we can actually predict with

reasonable accuracy maybe 60-40 70-30, who's going to win contracts. And the size of these contracts will actually affect stock prices. So we thought that we'll start this business. And we'll site it in New York. And we'll go through the analysis. We'll develop the prediction models and things like that. And then we'll sell it to the financial industry. Anyway, it didn't work out, because we didn't know who to sell it to. We didn't know how to sell it. But the predictions were kind of interesting. We did a little investing on the side in the companies that bid on these contracts. I deliberately kept the unit separate, because we didn't want to get any conflicts going on. I think it would've been a very successful business. But again, it failed.

And we had another one that failed. We thought of taking the same model that we used in the federal government and shift it into state and local. And that took a lot of time to get that done. So it didn't fail. It just took much longer than we planned to succeed.

Grad: But the basic business concept that you had left over and started with prior to 2000 is what really grew. You had a completely different kind of company now. And you were in a completely different position than you had been for the previous 25 years.

Cunningham: Correct.

Selling INPUT

Grad: Now what happens? You decide to sell the company. Why? You had $10 million in the bank. You're making a ton of money each year. You're not working as hard as you used to. You're living in the Cayman Islands. You don't have to fly all over the world. Why do you sell it?

Cunningham: Well, my wife had been on me to sell it for quite a while. She said," I hear you saying the same things you said 20 years ago. So I want you to sell." I went to China in 2009. And then I had come back through Japan. And I'd gone to see a bunch of my old clients-- Hitachi, Fujitsu, NEC, Nomura-- people like that that I've worked for in the 1980s, 1990s. And then some of the people I'd worked for were now in really senior positions. Because typically what happened was that software and services got to be more important in Japan just as everywhere else. And anyway, while I was there, I read this article that said, when you turn 70, on average you're going to live for 14 more years.

And I thought, do I want to go on doing this for 14 more years? And I thought, no. And then I thought, well, the other thing is we never had a lot of money to do some of the things I wanted to do. I'd like to learn how to fly a plane. I like sailing. I like racing sailboats. But I've never been able to afford a big sailboat. My wife had really never had any real security. My children didn't. And I thought, well, maybe this is the time.

So I came back to San Francisco. I went to see Goldman Sachs and some other people because during the 2000s, we'd get a call every week and every month, somebody saying, can we acquire you? Can we invest in you and this kind of stuff? I went to see these people in San Francisco and I said, “I'm thinking of maybe selling the company or selling a big part of the company and kind of retiring.” But 2008 was a disaster from a financial standpoint and through 2009 there was virtually no acquisitions done. But at the end of 2009, people had cash and they were feeling that they could do acquisitions again. I came back and saw my board. And I said, “What do you think?” And they said, “Yes, we think this could be a really good time. You've got a property. You can present it. It's the start of an acquisition surge. People are going to be hungry to do deals. We should look at it.” So I went out and talked to a number of bankers. We eventually had 15 bankers compete for our business, which was pretty amazing. Everybody from the big ones to the small ones-- and those in the information business primarily.

We selected a company called ArchPoint out of San Francisco. And we'd again, been very analytical. We took all 15. We measured them. Everything I did with measurements. And we measured them, put them down, rated them, took the top five, had them make a presentation to us, selected the top three, brought them all in to make a much deeper presentation to the board. And unanimously, we all selected this company out of San Francisco called ArchPoint. Little did we know it had only been in business six months. But one of the guys, Cooper, had been the guy who did the acquisitions for Microsoft for 17 years for Ballmer and Gates.

The other principal, Rob Louv had been the head of acquisitions for JP Morgan, The two of them were just a great team. And the thing that won us over is-- acquisition bankers typically they produce a big fat book-- and Rob Louv said, “We don't do that.” And the guy from Microsoft said. “Look, every day in my office there'd be a stack of books, six feet high. And frankly, I never read them. But if I saw one sheet of paper or two sheets of paper or something, and it looked interesting, I'd call the banker up and say, tell me about it.”

So their way of approach to the acquisition process was totally different from the traditional ones. They would put out a teaser. If somebody was interested, they would call them up. They'd make a mini-presentation, and then they'd have me talk to them. And we really loved that approach. It's just resonated well with us. And Jed Laird who was on our board, was an investment banker. We didn't give the business to his company, because we said, look, you're our inside guy. You can tell us what the bank is doing right and wrong. And it worked out absolutely beautifully.

Initially my idea was I'd sell 80% of the company to a financial institution, keep 20% and stay involved in it. Tom Hewitt told me, “No, sell the whole thing.” And several other people also said to sell the whole thing and get out of it. But I did start to go down that path to sell 80%. The last two companies in the bidding process included a software company that was our client actually.

And we'd hired people from them and they'd hired people from us. We knew them very well. They were a mile away from us in Washington. We had all the same kind of clients, because they sold software to help companies do business with the government. They were a public company.

The other company was a really good company in San Francisco that had a fantastic team, which eventually ended up buying the company that bought us-- one of those little stories. Anyway, Deltek made us a very good offer. And frankly, they said, look Pete, we don't want you. And the guy I'd hired as president, they didn't want him either. Because they had a plan. And their plan was essentially to buy us, and then buy Federal Sources, our number one competitor, and then merge the two together. And keeping somebody from INPUT really to do the deal would not have been a good idea. While we respected Federal Sources a lot, although they were smaller, because they had some good things going for them. But they apparently really hated us. So it was an emotional thing. And if we had been the other company to acquire them, they would have probably all split off and gone their own direction.

What Deltek was able to do was to hire somebody, Catherine Morales, who came out of LexisNexis to run INPUT and also to buy Federal Sources, put the two together with another company called GovWin. It all worked out to be a cash deal. And literally on October 1st, 2010, I was out.

Grad: Let me ask a couple questions. And don't answer if you don't wish, obviously. What was your revenue the last year that you were in business, in 2010?

Cunningham: The year before, in 2009, it was $25 million. The plan for 2010 was $30 million. And I believe they came very close to it.

Grad: And number two, can you remember what your profit margins were?

Cunningham: I think the profit was in 2010, 2011 was very much better than we planned, because the buyers cut some things out. They could get rid of personnel departments and stuff like that, because they had all that embedded. And the company has since grown very significantly since then.

One of the major benefits, by the way of the acquisition was-- so I'm told-- is that it reduced their health insurance costs immensely, because our average age was like 26 or 27. Their average age was like 50. So bringing us in reduced their benefits costs fantastically well.

It was a win-win situation. The customers also won because they got better service when the two companies-- Federal Sources and INPUT-- were put together. The people won because

they essentially didn't have that head-to-head competition all the time. You could really do some innovative things. And Deltek won because they got the revenues. And I won because I got out with a nice chunk of change.

Grad: Let me ask you three specific questions. One, the last year that was a full year of yours was 2009. Is that correct?

Cunningham: Correct.

Grad: And it was about $25 million in revenue that year.

Cunningham: Correct.

Grad: And so my question is, what kind of margin did you have? Was there $10 million in profit that year? What kind of numbers were you dealing with?

Cunningham: No, I think we were about $1 million something in profit that year.

Grad: That's all?

Cunningham: We were still investing in some of these new things. The whole deal was to keep pushing the envelope, because in my view, this was going to be a $100 million company. I still think it will be a $100 million company.

Grad: That's what I'm puzzled about. You said you had $10 million in the bank.

Cunningham: Oh, yes, because that was cash. I mean, each year it was just accumulating.

Grad: So it must have come from profit somewhere.

Cunningham: Yes, well, it was profit and also advanced payments.

Grad: So you had some subscription obligations you had to fulfill with that. Did that $10 million go with the business? Or did you take that out?

Cunningham: Our banker was very adroit. And we got the $10 million in cash.

Grad: So you got the $10 million out. And then in addition, they paid you additional money. Were you the sole owner at that point? Or were there other owners?

Cunningham: We owned about 90% of the company.

Grad: You and Pat?

Cunningham: Yes. I think it was about 85% or something like that. And Kevin Plexico and our president made numbers that were in the millions.

Grad: But fundamentally, then, you got a very nice multiplier times your annual revenue.

Cunningham: Yes, two and a half times. We got $60 million in cash for the company, plus the $10 million we had in the bank. So essentially it was a $70 million deal.

Grad: That sounds good. So you got almost 3 times the revenue, which is a very nice ratio. One and a half to two is considered strong. You did very well in that, Peter.

Cunningham: Well, we were in a good space, because it was a business that was growing. It was profitable. It had cash in the bank. It was a web-based business.

Grad: **Y**ou did a good deal then, too. You were a little early in the stock market recovery cycle, but you still did very, very well.

Cunningham: Oh, yes. Oh, yes.

Life after INPUT

Grad: I want to move now to what's going on the last couple of years. What are you doing?

Cunningham: Well, basically, almost the first thing I did was to get into sailboat racing. I've always raced sailboats, but small ones. But I've never done any of the big regattas. And I said to this friend of mine in Cayman who was actually a very well-known sailor, “Hey, David, I'd like to do the big boat series, San Tropez, and things like that.” And he said, “Talk to this friend of mine, Tony Rey. Tony Rey is a guy who has done three America's Cups, son of an American ambassador, just a wonderful man.”

Anyway, he got me into racing a boat called a TP52, which is a 52-foot skiff. This boat is 14 feet wide. It has a tiller. So, if you know anything about sailing, when you're 70 years old, going from side to side at 25 knots on a 52-foot boat is pretty mind boggling. Anyway, we started this campaign in the beginning in 2011. I told them at the beginning I'd do it for two years. So I wanted to do the US races. I wanted to do the European races. I wanted to build a competitive team, one that has fun.

And it was fantastic, because our TP52 had been built by Larry Ellison. And he built it as a training boat for his mono-hulls. And then, of course, he went to catamarans. So he sold the boat to a Russian. The Russian was the biggest liquor distributor in Russia. He distributed vodka. And he got entranced by racing. And so he decided to build a new boat. And he sold the boat that I bought.

My most important contribution to the campaign was that I was the helmsman, so I steered the thing. That was important. But I also put a stereo and speakers on the boat. When I said, I want stereo and speakers on the boat, they said, “No. None of the other boats have it. You can't do it.” I said, “Why not?” They said, “It weighs too much.” I said, “This is a 27,000-pound boat. I'm going to put in something that weighs a pound, or two pounds at most.” Anyway, Dusty, who ran the boat, went into Best Buy with some scales. And he made them open every stereo package they had and chose the lightest one. But it turned out to be good. We called the boat PowerPlay, because we wanted to be competitive and we wanted to have fun.

And we ended up winning; we won the Rolex in Saint Thomas. We won Cowes Week in the UK. We won the San Tropez regatta in our class. We got to be a very competitive boat. The crew was professional. I had a couple of amateurs on it. But they were all professional-- and just a great bunch of guys. Most of them have done America's Cup racing.

Grad: What did it cost a year?

Cunningham: The whole campaign cost me $5 million.

Grad: Wow!

Cunningham: That's expensive. Larry Ellison, I think, spent $500 million on the America's Cup.

Grad: His net worth is a little higher than yours, Peter.

Cunningham: The guys I was competing with included Niklas Zennstrom who started Skype; he was one of my competitors. Jim Swartz, a partner in Accel Partners who did Facebook, was another.

Grad: Sounds like you had a wonderful time doing it. What else have you been doing?

Cunningham: Well, I fly a plane. I learned to fly in the 1990s. And I got a small plane. I fly that around. And I'm starting another company.

Grad: Tell me about that.

Cunningham: Well, it's essentially social media for families. If you think about Twitter and Facebook and LinkedIn and all those things they're focused on the individual. And we all exist in groups. And particularly, the most important group we belong to is a family. And there's no real way of capturing your family's stories in a way that is collaborative. For example, you have a wedding. And there are chapters in the story. There are the pre-wedding activities. There's the wedding ceremony itself. There are the post-wedding activities, and even the honeymoon. I mean, there's a series of things. And different people have different aspects of each particular story. People produce wedding books. And they've got pictures in it. And they've got little notes in it and things like that. But our concept is to enable you to produce your family stories in a way that is collaborative, from which you can print books, if you want. You can distribute them. You can keep it all together.

I had this idea. We did some research with a company in South San Francisco that works for Disney and Apple and Google and people like that. They do one startup a year. We're the only startup they chose to work with. And what we found out was this really resonates with people. This is not a techie thing. It's not advertising based. For example, the Burt Grad family is totally private. In fact, if you want it encrypted, it's encrypted. It's not like Facebook where Facebook owns the information. You own the information. It's the Grad family information. You can download it at any time, totally secure, no ad-based, subscription-based activity. We're in it the development stage right now. We've done the research and the design. And now we're in the development stage. And so far everybody that touches it says, “I want to be involved in it.” And the big issue is how we roll it out, which will probably be in the mid-year time frame, July probably of 2014. It will be going out with our MVP. And then it'll develop from there. But I really think our focus is on the family, not the individual.

Grad: Sounds like an interesting idea. Are you directly involved in it or are you just financing it?

Cunningham: It would be very unusual for me to be not directly involved. I'm directly involved. But I have a team of three people that are helping me on it. One's a marketing guy. One's a tech guy. One's a legal business guy. And then I've got a development company that's working on it. Actually, it's a phenomenal development company in South San Francisco--the center of the universe is no longer Palo Alto--it's South San Francisco. It's where everything seems to be happening these days.

Grad: And so now you're living in the Caymans for much of the time. And you're sailing. You're doing things like that and flying. You have someone in San Francisco who is sort of running things for you?

Cunningham: Well, basically, I sold my boat in 2012. And then I started in I got into this project in 2013. So I'm pretty hands on with actually what's going on. And I get involved. I mean. The original idea I had has changed because of the research that was done by this design company. And because of their insights and their inputs, just a wonderful company called Sequence. You can Google them. They're a phenomenal company and just do wonderful design. And they have done a wonderful design for us. So I've been pretty heavily involved in it.

I'm also involved in a history project. I've got every report that INPUT did from 1975 to 2000. I transferred the intellectual property rights to me before I sold the company. So I have 25 years of the history of the software and services industry. I was actually talking to Dag about what we should do with it. I'll also be talking to the Charles Babbage Institute people as well. And I'm digitizing the information.

You've got four stages. You've got the stage where you typed up originals, took them down to the printing people, had them printed and bound and then sent. And then you've got the time where you used those desktop publishing machines and Apples and things Apple IIIs and Lisas that we used, with floppy disks that were a foot wide. And then you went to the smaller floppy disks. And then you went to the electronic database.

So we've got all those different formats. I've got 12,000 documents and 8,000 reports. I've also got all the personnel records, procurement records. So for each report, we know who bought the report. So if it's a report on the growth of the Internet, we know who was in IBM's, EDS's, CDC's, Oracle's world, who actually bought those things. And Microsoft ended up being a good find of ours as well. Anyway, so I've got that project going.

What else have I got? I'm on the board of a bunch of companies, mostly web-based companies-- two in the Cayman Islands, one in the UK, I think some in the United States. So all that is keeping me busy.

Grad: Sounds like you're very busy. Are you are you and Pat having time together? Or are you both flying in different directions?

Cunningham: No, we spend time. Pat's always liked the fact that I travel, because that kept me out of her hair. And she likes to read at night. And I like to turn the lights out. So we have minor differences in our work habits. But I think Pat's greatly relieved because she has some security in her life. Our children have some security. We have grandchildren now.

And as to the Cayman Islands I don't know if we'll continue to live there; we might move back to the States. I don't know where we'll go, end up, maybe somewhere new. We've lived in Cayman for 17 years now. So I think it's getting time for a change.

Grad: Peter, it sounds like you've had a very exciting life and it sounds like during these last few years you've really got a payoff for all the time and energy that you put into INPUT, all those 40 years that you worked in the industry.

Cunningham: Yes, but I still in a way regret that so we couldn't have done more in the industry. I think some of the ideas that we had were good ones. I think we could have been more. I think you put your finger on the spot several times in this interview about decisions, bad decisions that I made or lack of decisions in many respects. Lack of decisions can often be a very bad decision in itself. So in retrospect, I think we could have done more. I feel what we did was we helped companies go through that phenomenal explosion of growth and establish some credibility for them, and helped individuals in that process. So I don't regret it at all. I think we contributed. And I think certainly the last part was a very, very satisfying conclusion to my career there.

Grad: Well, that was interesting. So the last 10 years financially turned things around dramatically for you.

Cunningham: Absolutely.

Grad: It's a very nice cap to a very wonderful career. Peter, I've thoroughly enjoyed the chance to talk with you. And I really think it's very important that you get all the information on the industry, the numbers, the statistics, that you have and to make sure they're in a good place-- whether it's Computer History Museum, or Charles Babbage Institute-- so that they're accessible and available to other people. It will be of invaluable help to historians and analysts for the next 50 years. And I think that's a great thing that you're doing. So I encourage you. If we can help in any way in that process or assist in it, please let Luanne and me know. Because this is something we really want to do and want to help people do.

Cunningham: Thank you very much for that. And it's absolutely a very, very important activity for me. We've had a few false starts in this, because of various things that have happened. But I'm really committed now.

I've got Randi Haran, who as Randi Paul, was my first employee at INPUT now helping me. I have the lady that was secretary for me for 20 years, lovely, lovely lady, Anne Johnson helping me. I have my son's best friend. He's helping me. So I've got a team now that's working on getting this accomplished.

Grad: If there's anything we can do, call or email Doug Jerger who has been our guy on collecting documentation and getting it all put into place at the Museum. It sounds like you're in good shape. But if we can help in any way, please ask.

And thanks so much for all your time.

Cunningham: You're very welcome, Burt. Thank you.

Additional Material: Notes for Computer History Museum Oral History

Prior to the oral history interview, Peter Cunningham sent some materials that he had specially prepared to the interviewer. While there is some overlap with the interview, the editor felt that this was a significant addition to the oral history and so it has been appended to the edited interview transcript:

Summary

- Born in Neath, Wales, United Kingdom July 1941
- Grew up in England; 1947 moved to London when father left the RAF.
- St. Ignatius grammar school from 1952 to 1959
- Gap year with British No-Ferrous Metals Research Institute in Thorium and Uranium Lab while waiting to enter Imperial College, London
- 1960 entered Royal College of Science at Imperial to study Physics.
- Captain of tennis team and of ffagins the college social rugby team. Vice President of Royal College of Science student union and member of '22 Club honorary society
- Graduated BSc, Associate Royal College of Science in June 1964
- July 1964 joined ICT as a trainee systems software development programmer
- Worked on 3rd generation 1900 series computers in Plan and Assembly language.
- 1965 joined McLintock, Mann and Whinney Murray a consulting company where I wrote applications software for shipping companies and conferences on IBM 1440s.
- 1966 got married
- January 1967 moved to Washington DC area with wife, 3 month old son, $100 and a job with C-E-I-R.
- Allocated to work in ARB subsidiary (now Arbitron) writing software on IBM 1401/360/7090 for radio and TV audience measurement research including analysis of million person surveys. Started to manage 25 person programming group

- 1968 company acquired by CDC. Planned conversion to CDC 3000 Series computers.
- Left CDC as they were primarily a hardware company at the time although moving to services
- Daughter born January 1969
- Early 1969 joined Management Science America (MSA) as systems analyst/manager for government and commercial projects. Started on manufacturing systems for apparel manufacturers in Mid-Atlantic.
- Mid 1970 MSA goes into bankruptcy.
- The Washington office of MSA joined Los Angeles based timesharing company.
- Fall 1970 paychecks bouncing as company goes into bankruptcy
- Fall 1970 formed JW Goodhew and Associates as independent programming shop; I was one of 3 key managers as Vice President
- December 1970, President left to return to Atlanta and I became President.
- 1970 received MPA in Technology of Management from American University
- Company was 20+ people working for government and industry
- 1972 left company and consulted very successfully by myself to government and industry; worked on Presidential Commission on Marijuana and Drug Abuse and with timesharing systems
- Went to San Francisco to look for work
- 1973 Consulted with and eventually joined Quantum Science Corporation a technology market research company. Ran their software and services unit. Introduced to ADAPSO.
- November 1974 left QSC and formed INPUT
- 1974 to1999 grew INPUT to multinational research company specializing in software and services. HQ was in Mountain View, CA with offices in Frankfurt, Paris, London, New York, Washington DC and Tokyo

- Services were subscription, multiclient and custom market research. Clients were primarily vendors. Worked with industry associations in Europe, Asia and US. Helped set up first World Computing Services conferences.

- Primary role was explaining the future of the industry to clients and industry as it grew from $10 billion worldwide in 1975 to over a $1 trillion by 2000

- 1999/2000 transitioned the company from a market research company to a data base company focused on government technology contracting in Washington DC. Closed offices, reduced staff to 12 and changed role

- 2000 to 2010 grew company to 250 people with over 2500 clients.

- Sold company to Deltek in October 2010

- Forming several new companies since including a private social media service for families

Detailed Career Description

- I was born in Wales during the Second World War when my mother was evacuated to her mother's house in Neath. My father was in communications in the RAF so was away until he was invalided out of the RAF in 1947 after suffering in Israel/Palestine.

- I grew up in London going to a Jesuit grammar school and then entered the Royal College of Science at Imperial College to study physics. I studied under 3 Nobel Prize winners so knew that although smart I was simply not at their level!

- I was captain of our tennis team as well as a rugby team that I helped form that played good social rugby. I was Vice President of our College Union and a member of our honorary club.

- I graduated from college in 1964 and entered the "new industry' of computers; I joined ICT as a software development programmer writing sort merges for 3rd generation ICT 1900 in Putney Bridge South. We worked in machine language and an assembler called Plan

- After 18 months I decided systems programming was like being in lab so wanted application work

- I joined a consulting company formed by 3 accounting companies McLintock, Mann Judd and Whinney Murray, so MMWM. There I wrote software for shipping companies and confederations primarily on 1401s.

- I got married in early 1996 and we lived in Kensington. However my wife got pregnant so we would have had to move out from central London because one person's salary would not support our life style there.

- But we saw that US companies were interviewing for programmers so I went along for interviews and agreed to move to the US. We nearly went to work for Xerox in Rochester but eventually chose a contracting company called C-E-I-R in the Washington DC area that was run by a Brit who worked in Washington for the US government particularly in linear programming.

- We moved to Washington in January 1967 and after a short time working in Bethesda Maryland I was allocated to a subsidiary called ARB (now Arbitron) that did TV and audience measurement research. In a way this was the start of my market research career. Twice a year ARB surveyed 1 million Americans. I pretty quickly became assistant manager of a programming department of 25 people and became responsible for their moving from 2nd to third generation computers. At the time we were running the survey analysis used by the advertising industry for determining the price of TV and radio spots on IBM 1440s and 7090s.

- We were in the process of moving to 360s when CEIR was acquired by CDC who were looking for a timesharing operating system and CEIR had written one for the GE265 which I had used.

- CDC had some weird payment practices that caused us to be paid by years of experience rather than responsibility. However I did get exposed to CDC and met Norris and Price. I was put in charge of development for the new ARB survey systems and we started the move to the CDC 3000 series computers also using CDC 6000s for some of the statistical analysis software.

- I really felt under-rewarded by CDC so joined the Washington office of an Atlanta based company called Management Science America in early1969. This was a fast growing company that was doing really interesting work. My responsibility was managing software development for apparel manufacturers in the Mid-Atlantic area. I worked on 360/s primarily; 30s, 40s and 65s.

- However, it turned out MSA was 'buying' government and other projects as well as buying data center companies to ramp up the revenues so it could go public. The market crashed in 1970 and MSA went into bankruptcy. I always remember the President coming up to our office and telling us our options; we could stay with MSA but when it went into bankruptcy we would not really know what would happen, we could take our office (which was profitable and had a good backlog) and join another company, or we could form our own company.
  There were three young guys who ran the office and none of us knew how to run a company so we decided to take our office and join another company. We eventually selected a timesharing company based in Los Angeles that was setting up a national presence based on Univac 9000 series computers.

- Three months later our paychecks were bouncing! So we decided to form our own company. Each of us three managers went to our clients, explained the situation and asked them to give us a check for the work done as of that day, which they all did. I collected the checks, went to Dulles and got on a plane to LA where I went straight to the CFOs office. I told him he could have the checks (about $60,000 in total) if he gave me a cashier's check for our compensation and expenses as of that day when we would all leave the company. After a lot of bluster and threats he eventually caved and we went downstairs to the bank and got the check. I went to the airport, took a red-eye back to Washington and went straight to our office so we could cash the check and pay ourselves. We were mostly pretty young with families so when our paychecks bounced so did our rent payments, car payments, etc. Not pretty! It really taught me the importance of cash and good client relationships.

- So we now had in mid-1970 a 20+ person programming company (JW Goodhew & Associates after our president– we needed a name quickly and that one we were sure was available) that was doing government and commercial work. We wrote a simulation program for the US national telecommunications network as data traffic grew – it caused the largest IBM 360 available to run non-stop for days). We developed with another MSA spin off the Model Medicaid Management Information System as well as continuing our manufacturing systems work. We put in the dues and management system for the Airline Pilots Association.

- After 3 months our new company lost its president as he moved back to Atlanta and I was appointed President. My main job now was selling that I had not done much of before and certainly had no training in.

- The company survived and started to grow. But we then had a palace revolution in summer of 1972! It turned out that I only had a small amount of stock and 3 of the people who worked for me actually controlled over 60%. They disagreed with some of the things I was trying to do so they ganged up and essentially fired me. I sold my stock back to the company and stated to do consulting.

- It turned out that the revolutionaries could not run the company and after less than 6 months it was wound up even though it had contracts, staff, cash and prospects. The staff basically joined the clients and the cash, etc. was distributed to the stockholders.

- My consulting did very well; for the first time in my life I owed nobody any money, my wife and two children were well supplied and the work was fun. I got involved in helping run the President's Commission on Marijuana and Drug Abuse (which recommended the decriminalization of Marijuana). I ran a project to put in a GE time sharing service at the Bureau of Competition in the Federal Trade Commission, among other work there. I worked for Allegheny Airlines among others.

- However, my wife and I both thought we would like to see if we could move to California as we had planned when we came to the US to spend 3 to 5 years on the East Coast,

then go to the West Coast for a similar period and maybe then go to Australia or somewhere else. See the world!

- So I got on a plane in late 1972 and flew to San Francisco where I started making cold calls to find work.

- One of my calls was to a person who was an executive at the timesharing company we had briefly worked for who had kept in touch. He was now with a market research company called Quantum Science Corporation in Palo Alto. They were primarily in the semiconductor and memory research business but had a small software and services unit that had just won a contract with a timesharing company called Comshare in Ann Arbor to evaluate the market for a piece of software they had written.

- I knew software so agreed to do the contract; this was my first market research project in this industry. I enjoyed it and found it easy to do the interviews and analysis. My conclusion was that there was a market for the software as long as Comshare rewrote it for IBM systems rather than the XDS systems they were using.

- While I was doing this project another company based in Palo Alto tracked me down through Washington to work on a project to determine the profitability of the EDS Medical contract with the State of California as it was suspected that it was very high. I calculated that at the most it should have been costing the State $10 million a year with fully loaded billing rates while EDS was charging over $25 Million. The result was the State put it up for rebid which was won by Lockheed.

- Both companies offered me a job and I was very interested in the market research position so joined QSC in early 1973 working for a very smart man called David Jung.

- However it was a small company and my role was an analyst not a manager and their emphasis was not in my area although we started to introduce and build new programs.

- I ran the software and services practice for QSC as well as a Small Business Program we introduced. One of the main roles I had was speaking about the industry future to clients and prospects. At the time e calculated the industry must have been around $10 billion worldwide. I found out I enjoyed it although it was a little frightening at first as a young person (33 years old) talking to much polder executives in large companies like IBM, Honeywell, etc. This was till the time when age and experience rather than talent were what led to promotion in companies

- Through this work I was introduced to ADAPSO as I think that QSC had done a report for them. However QSC had lost the bid to produce the annual ADAPSO report to IDC.

- QSC had an international operation in London and I met some of the key people there.

- Eventually I had a falling out with QSC and in November 1974 left to start my own market research company. It was based in my garage that was also my basement in Menlo Park.

- One of the big decisions was whether to be a consultant where I knew I could make good money as I had done that already or form a company. I decided to do the latter because although I knew a lot about software and systems I could see the industry exploding and it would take more than one person to cover it. So I decided I would form a company which I did in a basic form in November 1974. It became subsequently a LLC in January 1976.

- In terms of a name, I did not want something that would be shortened to 3 letters like XDS, IBM, QSC, IDC etc. that was all the rage at the time. I looked at Output, InTime, Input, etc. I eventually chose INPUT as what I would provide was input to the management decision processes in our clients. I think the tag line was “Management Planning for the Computer Industry”

- I had a system. I got up at 5:30 every morning and went down to my unheated office at the back of the garage that was basically a small storage room. I had a ‘desk” that was a plank on two boxes with a telephone I had installed. I would then call the east Coast either for sales or research for whatever project I was working on until 8:30 when I would have breakfast. From 9 until noon I would call the middle of the country and the West Coast. I would then have a quick lunch with my wife and in the afternoon write up the results of my sales calls, sales letters, research results, etc. In the evening after the children were in bed my wife would type up letters, reports or whatever

- My first client for $300 was Gale Lepard who ran corporate market research for Computer Sciences Corporation who wanted some information on billing rates.

- Another decision was to set up multiclient and subscription services such as those I had seen at ARB in TV and Radio and at QSC in technology. They had value in that you could do a lot more research and provide wider coverage than if we were just doing consulting projects.

- My first multiclient project that I researched and wrote myself was a report entitled “The Impact of the Recession on EDP Budgets”. This got picked up by the “Heard in the Street” columnist in the Wall Street Journal and that got us a lot of visibility.

- My second multiclient project I did with a partner on the future of remote batch processing that was really the joining of the batch service bureaus with the timesharing companies. The latter wanted to move into the core transaction application business rather than the analytical applications such as spreadsheets that they specialized in.

- In 1975 I moved into a serviced office in Palo Alto and hired my first employee

- In 1976 we introduced our first subscription programs on the market for information services and on the competitive environment.

- We grew rapidly in the 1970s and opened several offices including New York and London. We started our relationship with ADAPSO in the US and CSA in UK who were looking for specialist support rather than generalist that companies like IDC provided.

- At the time hardware was still the dominant component of the market so our focus on software and services was unusual.

- With ADAPSO we carried out an annual survey of vendors. We worked closely with a committee led by Larry Schoenberg of AGS to make the survey as accurate as possible. As part of the survey we delivered a presentation at the annual conference. This was a very successful component of the ADAPSO service which was primarily for the growing independent companies in the industry. However, it did start some internal ADAPSO problems as in some ways we were becoming more the spokesman for the industry than the Association. Our cocktail party at the annual conference was the major social event.

- There were other 'political' issues in ADAPSO. For example there was at times considerable antipathy to various classes of vendor such as computer manufacturers, accounting companies, aerospace companies, etc. In general the complaint was that these types of companies engaged in unfair competition by tying their computer services to other activities.

- As ADAPSO changed our relationship deteriorated and eventually the annual report was dropped. That was a huge mistake in my opinion. It was good for the industry, for ADAPSO and for INPUT although it was never a profit making proposition for us.

- One example was the use of industry statistics by the US government where when we produced the ADAPSO report the data from that report were the industry standard. After the report was stopped the government stated to use our data directly. This process continued so that in the 2000s OMB would call us up to ask how much the federal government had spent that year on IT as our data were better than theirs!

- ADAPSO gradually transitioned to be a lobbying organization which was a service primarily for the larger companies. We always maintained it was a mistake as the smaller companies needed different services and if the Association had the small companies as members it would always have the big ones whereas if it was perceived that it served the large organizations primarily it would lose the smaller companies and that was what in fact happened.

- We knew this because of the market research we carried out and the nature of our client base that always had a mix of company sizes and types.

- Another factor was the increase in visibility that the financial organizations gave to the industry. Eventually the conference held annually by Alex Brown became far more valuable and important than the ADAPSO (or ITAA as it became – again in our opinion a mouse trying to be an elephant)

- One indication of the failure of the Association to serve the member needs was that many of the members of the RoundTables that ADAPSO had formed dropped out of the Association while the RTs themselves continued.

- Our services and client base expanded over the years. There were really three components of all our services; research, analysis and opinion. We would tell our clients they could get the data and forget the analysis and opinion or choose any component or components.

- Initially I did not give opinion easily as I felt that in any audience there were people who spent their whole working life looking at whatever area I was taking about. So our job was to give them the data and the analysis and for them to determine what it meant. Computer Sciences, University Computing and IBM were key companies who kept saying “Yes, OK but what do you think it means for us?”

- I remember Ross Perot looking at a chart I prepared for EDS as to what I thought they should be doing and saying “Pete; we have looked at doing all of those”. I knew that and just as I was about to reply about timing he said words to the affect that maybe now was the time to relook at them.

- I always liked going to Dallas as I found the Texans the easiest people to deal with. They either liked something and bought it or said ‘no thanks!’ in the nicest way. One time Jimmy Ling came into my office in Mountain View and said “Pete; I hear you do x. Is that so?” I replied “yes we do” (always keep communications with Texans short). He said “How Much is it?” I said “$Y thousands”. He said “Here is my check; send it to me” and left to get in his limo. The whole meeting took 5 minutes.

- Another time I was at the swimming pool at an ADAPSO conference and a Texan came up to me and asked the same type of question as Jimmy Ling; he gave me a check then and there and I had nowhere to put it.

- I would visit EDS on Forrest Lane several times a year and usually meet with Ross and/or Mort Myerson who was really responsible for its growth. One of the things I liked was the attitude. When it came time for lunch Ross would just take me down to the cafeteria and stand in line with everyone else and we would go and sit with whoever was there. It was very egalitarian. He also put his executives on different floors so there was no corporate corridor. And his office was real Americana with battle flags Remington sculptures, mementos of all kinds; I loved going into it.

- Ross always then answered his phone unless he was in a meeting. Conversations were always short and to the point; he never wasted time, was always courteous and very smart.

- We worked with General Motors on the lead up to the acquisition of EDS. We looked at various companies in the industry for them as acquisition targets including CSC and EDS. A key value point for GM in our opinion was EDS' ability to take over and revitalize the GM computer operations that needed drastic improvement. Each auto company in GM had its own data support and GMISCA was charged with rationalizing and improving the performance as well as getting into the services business. They just could not do it on their own.

- For GM the acquisition was a brilliant move as it changed $4 billion of expenses eventually into $4 billion of revenues to EDS when it went back out to the market.

- Eventually Perot and GM fell out and he left to start Perot Systems with many of the old EDS people.

- I did not like Plano where EDS moved its HQ after the acquisition. All the executives were in the same area and it was too ostentatious. I called it 'The Monument to the Mainframe' as this was the time computers started to get a lot smaller, faster and easier to cool. There used to be empty 'dance floors' where there should be computers.

- We worked a lot with Gary Fernandez who ran Sales and Marketing for EDS and eventually moved to Europe. He just could not stand the slow pace of European business, something I was very familiar with. He tried to have breakfast meetings but found it impossible to get people to come.

- There was a strong feeling that US companies like CSC, ADP and EDS could not penetrate the European markets; this was encouraged by both sides. The prevailing wisdom was that you had to hire local people but the US companies eventually recognized this would never work because by and large the Europeans just were behind.

- The exceptions were actually the subsidiaries of the US computer manufacturers like DEC, HP, NCR, Unisys and IBM. Being away from the company headquarters gave them more flexibility plus the local situations required more flexibility in services than the US market in order to be successful. They were competing with the national computer companies like ICT, Bull, Siemens and Olivetti so had to be adapt to the local conditions.

- The national computer companies with the exception of Siemens gradually disappeared being bought up by US or Japanese companies. My company, ICT was bought by Amdahl which was in turn acquired by Fujitsu and became part of Fujitsu Computer Services. We advised Fujitsu in Tokyo about ICT and other services companies.

- I would hold Roundtable meetings with senior company executives in Europe (often the people who actually ran the companies) that would have been very difficult in the US.

- Another country that was an interesting market was Canada that had several very successful services computer technology and services companies. MITEL (originally Mike and Terry's Lawnmowers), was a key company as well as several subsidiaries of banks and other companies. SystemHouse was another.

- A particularly important company was the IBM Canadian subsidiary run by John Thompson who eventually became Vice Chairman of IBM (not the black John Thompson who went to Symantec who we also worked with). They formed a unit (IMC I think it was called) to target the Facilities Management business as it was then known. This was successful and formed the model that resulted in IBM in the US moving into the business resulting in the significant Kodak contract.

- I used to have huge arguments with the French particularly Philippe Dreyfus who was the eminence gris for Cap Gemini and Serge Kampf who I would meet with a couple of times a year. The subject was the feasibility of IBM being successful in services, particularly in Europe. My argument was that IBM was a smart company and unlike the independent services companies was putting R&D into the services business unlike services companies that mainly then relied on customer contracts to do their R&D. IBM was learning how to do the business and putting smart people into the business. It also had experience in IBM Federal Systems as well as IMC that it would leverage. I maintained that IBM would be successful and could well become the largest services company. Philippe hated this concept. IBM Federal Systems was where Denny Welch worked before IBM transferred him into the "Gear Box' unit that was established to work with the IBM business units to establish the commercial Systems Integration business and eventually the outsourcing business.

- I actually worked more closely with Michel Jalabert at Cap Gemini so our business was safe!

- I also worked with Jeff Unwin who became MD of CGI. Jeff started with Hoskyns in the UK that was acquired by Martin Marietta Data Systems. It was acquired by CGI so the business went from UK ownership to US and then to French. When acquired by Ernst and Young it really went international.

- Other French companies I worked with included Atos. I actually went on the Board of Atos until it was acquired by the Dutch company Philips; I represented the non-French money in Atos. Board meetings were interesting as there were 16 Board members including the great and the good from the French investment units of Paribas, etc. The meetings were held in French which I did not speak. However the documents were all in English so I could understand them. Periodically I would raise my hand and say "M. Bourigeaud (the Chairman) j'ai un question". "Yes, Peter", he would say and we would all switch to English that everyone spoke perfectly. After a while Bourigeaud would say "Francaise!" and the meeting would switch back to French.

Atos had some really good people including their chief operations officer Dominique Illien (he eventually left to become MD of Sopra) and Henri Pascaud.

- The French, particularly Atos, Bull and CGI, really wanted to be more international than any other nationality. It was one reason both Atos and CGI really emphasized English as their primary language of communication internally (notwithstanding the Board meetings of Atos where there may have been a regulation of some kind). All CGI's business meeting internally were held in English.

- The other major European services company that really emphasized the international market was Siemens Business Services (SBS). This was run by a very smart man, Dr. Friedrich Froeschl, who became a friend and co-author with me on the book we had published in 1999 by Springer Verlag entitled "Electronic Business Revolution – Opportunities and Challenges in the 21st Century"

- In the view of all three companies, Atos, CGI and SBS, it was critical to get a significant business in the US. This was a key factor in my opinion in the eventual hook up between E&Y and CGI.

- One of the key roles we played for national companies was keeping them informed of what was going on in other geographies in the software and services business, as well as the broader technology market to a certain extent. I talked to European companies (meaning companies in European countries rather than companies that were European in nature) about the US market and US companies about the national European markets. US companies viewed Europe rather as a collection of States rather than a bunch of very separate countries.

- I worked with the country and European executives of virtually all the major US software and services companies from Microsoft, Oracle, Computer Associates and BMC in software products, Accenture, ADP, CSC, EDS, and Perot Systems. Additionally companies like Cisco, AT&T and other telecom suppliers.

- Then there were the national companies who are almost too numerous to mention. I worked with RM, CAP (not Cap Gemini), CMG, Granada, Xansa in the UK; CISI Alcatel, Baan, France Telecom, SEMA, etc. in France; DeTeSystems, Plaut, Ploenzke, SAP (Leo Apotheker), and debis in Germany; Enator in Sweden; and others around the continent. Each company is a story!

- A particular group that was most interested in what was happening especially as the Internet got started was the telephone companies that were still largely monopolies. One company in particular we worked with was British Telecom. It had a unit under John Priestly that did work in SI and professional services but we had to go to the Board level under Ian Vallance to get them to emphasize it. It is now one of the largest service companies in the UK.

- Going back to the US, one of the organizations we had the most involvement with over the years was Arthur Anderson's computer services unit.

  I first got involved with them as a result of a speech I made at a conference somewhere on the future of the software and services industry, I think the Alex Brown conference. John Oltman who ran the Chicago office (AA's largest) came up to me and said "you have got come talk to our executive committee", which I duly did. The meeting was at the top of the Hancock Tower as it then was and involved the managing partners in the accounting company as well as the execs in the consulting arm. Victor Millar who became a good friend was running the consulting business as it then was but really it was part of each country's partners' business. What the consulting people wanted to do was establish a separate unit of the parent organization. They were willing to compensate the accounting partners for the revenue they would lose. My job was to talk about the future of the industry and how you could win. My main theme was that the industry was consolidating at the top from a bunch of national and specialized units into valuable and significant companies. If they wanted to play they needed an integrated unit that operated as a company not as set of individual entities that would gradually lose position.

  The companies at the top would emphasize a common culture, marketing, operating processes and principles, etc. including education and training (think St. Charles!). Anyway this was successful and the Anderson Consulting unit was formed.
  We continued to work with the partners at the new organization in Europe (Vernon Ellis and Keith Burgesss) and the US (John Oltman, Victor Millar, George Shaheen, Joe Collins (who ran the research facility in Palo Alto that was one of the most successful demonstration centers ever built by any company in the world) and many others.
  Two major sets of work involved getting them into systems integration and then (most contentiously) into outsourcing. For the latter I made a presentation in London to their international partners meeting (they rotated it round the world) on the future of the industry and particularly the future of outsourcing. We then formed working groups of partners to see what form Anderson Consulting/Accenture would take in 2000; I was gratified to see that outsourcing that I had recommended they get into (it was zero at the time) was predicted to be the largest source of revenues by that time according to the working groups.

  The change from AC to Accenture was more than a name as it represented the establishment of a corporate rather than partnership structure and culture and again was very contentious. My point and that of the visionaries was that they were going to need the ability to raise capital to take advantage of the opportunities and there were other considerations too.

- I guess the other organization I think we had the most influence on was IBM. My first introduction was a result of my 1975 report that was picked up in the Wall Street Journal. Their corporate market research person (Loren Wood) asked me to come and talk to him. As a result he organized my first presentation at IBM; it was in a windowless dark room in the basement at Armonk where a few strange people came and went as I was

talking. Twenty years later I had a 3 hour meeting in the Board room at IBM with John Thompson, Akers, and the CFO who went on to run Xerox; that day IBM's stock dropped through 50. The point of the meeting was for me to talk about the future of the information technology business and what IBM should do. The corporate planning officer had set up the meeting and when I protested I only knew software and services and not technology he made the comment that now the areas I knew were leading the industry and not following.

I had no idea what to take into the meeting as far as technology was concerned but I knew that the PC was a big issue at the time so I took in a copy of The Computer Shopper which by that time had grown to over 1200 pages. When the meeting started I just put it in front of me. Akers said "What is that?" I said it is the bible of the personal computer industry; there were stacks of them at every airport news magazine rack. I told them that IBM was not on any page! They grabbed it and started poring through it. Akers got on the phone to the guy in Florida who ran the business and told him to get on it! Of course, the reason they had never seen it was that they flew in corporate jets and did not go through airports.

The rest of the meeting that went on for over three hours was mainly on the software and services business which I said had to be free from the hardware business especially the software. I felt that outsourcing was a huge opportunity for IBM as it knew the operational characteristics of their customers at the computer level better than anyone else; they had the data.

Akers felt that they were starting down the path but the biggest problem they had was at their executive level getting the changes necessary made. He also said that their profit margins on systems had gone from the 60% level into the 30+% level in 18 months (This was the time of the rapid growth of SGI, Cisco, Sun and Oracle as the Internet really got going.)

Although this was the high point of our relationship with IBM another significant activity had occurred a little earlier. I had made a presentation at the IBM computer services conference that had replaced ITAA and Alex Brown as THE major conference for services companies. This was 1994 I think. As part of it I made the observation that the Internet (with a capital I) was the future of the network business and that it was not owned by anyone. The IBM speaker after me agreed but did say that IBM ran the backbone network for it under a government contract.

John Patrick who got IBM into the Internet business came up to me after and asked me to do a project for presentation to the IMC (IBM Management Committee). He wanted IBM to set up a unit to pursue the business but the IMC had said he needed to show

how much hardware would be sold. So he wanted a market forecast for the year 2000 showing the market for hardware as well as software and services.

We did the project and sent to him a presentation that said the market would be 200 million users (remember at that time there were not 200 million devices) by 2000 (we subsequently upped it to 250 million) and that the total market would be something like $200 billion including a very significant hardware component. Apparently he used the data in his next presentation and got permission to set up the Internet unit.
We actually had a filing cabinet in our office that had all the work we did for IBM over the years. It was kept locked and every so often an IBMer would turn up to check that it was secure.

One area of failure I had with IBM (and almost all our clients) was that I felt the next great opportunity was at the consumer level. In fact we actually started to forecast the user market. But IBM and others thought that was going into competition with their clients.

- Another failure we had along the way was with Digital Equipment Company.
  We had worked with them at a very significant level to the extent that each year for several years I met with all the executives that were going to present at the financial analysts meeting in New York as their meeting had been very poorly received. They made their presentations to me and I critiqued them. The first think I taught them was that people would only remember three things from each presentation so focus on what you wanted them to take away. The next year each presentation started with “There are three things I want you to…….” Which made me want to tear my hair out!
  The other thing they all did when I first saw the presentations was to say “We want you to understand…….”. I pointed out that the analysts were all pretty smart and felt they ‘understood’ the market even if they did not, so assume they did understand whatever you were going to talk about and talk up to them not down.

  A big issue for DEC was should it form a services unit as IBM had formed IBM Global Services (which incidentally was supported heavily by the DEC services people in Europe). They hired Gresh Brebach from Accenture to set it up but Ken Olsen hired Bain and Company to study it. I was in Brebach’s office the day that the purple haired woman who ran Bain was presenting to the Board. Gresh said I will have a job tomorrow or not as he would not stay if they turned the unit concept down. Bain persuaded Olsen to keep the services associated with hardware and not to set up the unit: Brebach left as did some of the execs in Europe and DEC continued its decline.

- There are many other stories in the US, Japan and elsewhere that I can cover. This is a start!