

Introduction

The origins of my interest in simplicity can be traced back to when I was a small five-year-old sitting in a Sunday School classroom listening to a young lady teaching us about the Bible after attending a service at St John's Anglican Church in Roslyn, Dunedin, New Zealand. Even now, I can distinctly recollect the sudden epiphany I had that, as I was listening, something just didn't add up. Of course the language that I used in my sudden thought wasn't quite as refined as that. By the time I was seven, I was regularly debating the existence of God with my father, sometimes going off for a furiously paced walk down Highgate in winter time so that I could muster some new argument to take back to test on him.

Over the next six to seven years, I had many opportunities to debate this subject with roving born-again Christians, and looking back I realise that I had started to identify the core principles of people's arguments. That proved very useful in rebutting their arguments quickly and effortlessly. On looking back at my atheism, I think that it is perfectly consistent with my interest in simplicity. A belief in a higher power along with all the trappings of religion requires complexity as an explanation. Many of my friends are Christians, and I enjoy their company and the odd debate. Yet I can appreciate the relevance of religion to others and the valuable tenets religion has given to society.

Strong academic ambitions were never part of my character so I more-or-less plodded through Otago Boys High School and left Otago University with an average degree in zoology. This was followed by a somewhat better performance in attending polytechnic where I received a technical qualification, the New Zealand Certificate in Science. Sometimes, I had an interesting debate but mostly my brain lay dormant until I returned from living in Sydney, Australia with an Apple II+ computer in November of 1981. At an Apple users group meeting in the then new university Arts II Building, I remember listening with great interest to a speaker describing how useful it would be to take information on paper and have some way of entering it into a computer quickly and accurately. This was many years before scanners and Optical Character Recognition (OCR) became possible.

For some reason unknown to me, this statement snagged on my imagination. Out the other end came an idea to make it easier for a programmer to type in lists of program listings that commonly appeared in the user-magazine Apple Bytes. I quickly assessed that Applesoft Basic was not up to the task and realised that only Assembler could handle the need for speed. Not far from my parents' home where I had come back to live was a very bright young man called Michael Hamel, who had competed with my younger brother all the way through primary school. He worked as a consultant of some sort at the University Computing Centre in Dunedin, and was already fluent in Assembler. He showed me a screen utility that emulated the Star Trek Warp Drive visual effect of stars coming out of the screen towards the viewer.

That started an ambitious 18-month project. And at the end I had a very fast program editor that used macros and look-ahead techniques to take away the burden of

sometime typing in listings or even maintaining their own programs. It could do syntax checking using a primitive form of recursion that I only discovered the name of afterwards. Commercially, it was a total flop with only two sales but the late nights and concentration had rewired my logical side of the brain, and what had previously been difficult to totally grasp during high school or university programming modules in mathematics became something that now was considerably easier.

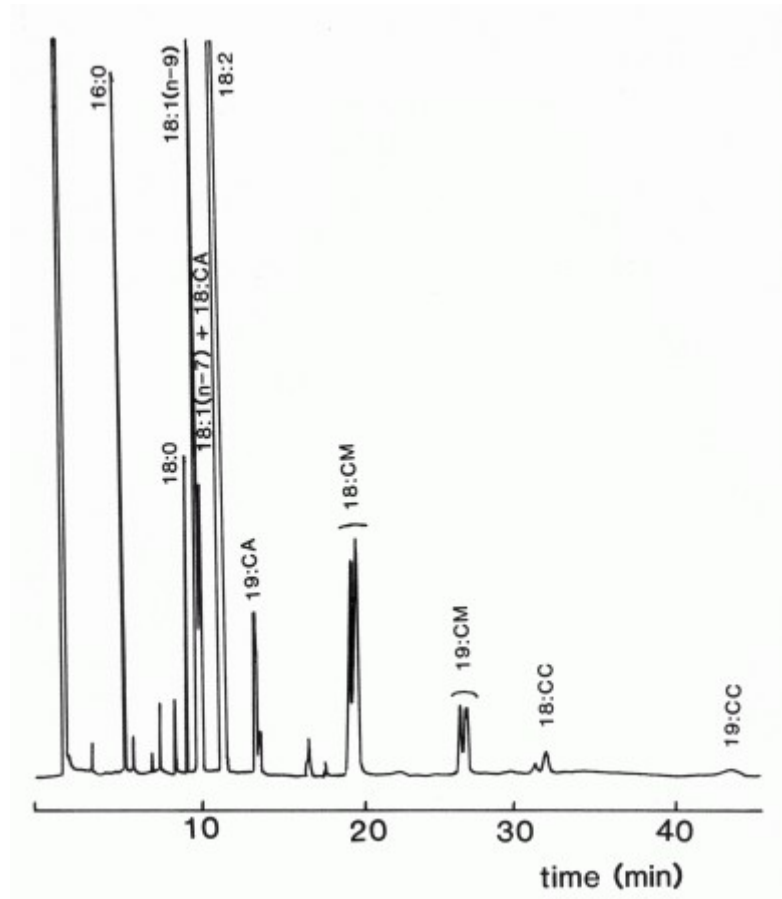
During the development of this product, I had been doing technical research work at the university and made a useful breakthrough that gave me some good life lessons. On a six-month project, I was to use medical abstracts to find a method for measuring a relatively obscure fatty acid called phytanic acid. It has multiple branches off the main carbon chain found in all fatty acids and had been difficult to isolate and measure. A little girl in Southland, New Zealand, had been born without the ability to break down this fatty acid, and it caused her to become quite ill when it accumulated in her body. By measuring the levels of phytanic acid in different foods, it would be possible for her parents to avoid foods with high levels.

After several days, I found a method designed by a group in England that took two days for the analysis. Somehow I was born with a laziness streak, and that prompted me to think that there was no way that I was going to take two days to do an analysis; one day would suit me just fine. So, I looked more closely at their results, and to my surprise discovered that a professor, research fellows and scientific officers had missed something that seemed pretty obvious to me.

A gas chromatograph is a measuring device in which a gas is pushed through a special column packed with semi-absorbent material that retards the progress of different chemicals by different degrees. As the chemicals come out at the other end of the column, they are more or less separated, and you can see on the elution profile (a record of the relative concentrations of different chemicals exiting the column) the peaks indicating various chemicals. By using known standard concentrations of these chemicals, you can identify which peaks correspond to which chemicals and how much approximately there is of each. An example of an elution profile is on the next page and this shows what happens when similar fatty acids exit close together.

On the two different columns using standard packing materials available at the time (e.g. DEGS - Dioxy-Ethylene Glycol Sulfate from memory), this group had found that phytanic acid was superimposed over or exited at the same time as other fatty acids. What I saw was that, if I combined the two elution profiles in my mind, I could see phytanic acid coming out by itself. What I had done was to add together for each fatty acid the time to pass through each column, and I had concluded that phytanic acid would come out completely by itself. It was not physically possible to make a column that was twice as long and pack it halfway with one material and the remainder with the other material. Therefore, I made some columns with mixtures of the two packing materials. After experimenting with different proportions, I found a mix that did the job. Unfortunately, the chromatograph I had at my disposal was an old one and not capable of measuring the low levels found in different foods. My six-month job was

rapidly coming to an end, and another research team convinced my supervisor that they needed me more than she did.



Picture 1 – Typical Elution Profile of Fatty Acids

This project taught me two principles that are of immense value to all young people. Firstly, that it doesn't matter about the credentials of whom you may be competing against; it's what your competitors are doing, not what they have. Or, turned around, it is what you can do and not what you have in terms of qualifications. And, secondly, experts in their fields overlook opportunities. If you don't believe this, you will be less likely to make discoveries.

The new job in the Surgery Department of Dunedin Hospital under senior consultant Andre Van Rij was very stimulating. Although hired as a technician, I contributed to the design methodology, and through one of my observations we were able to construct some equipment to help us measure a breakdown product of lipid peroxidation called MDA or Malondialdehyde.

After the Government started to dry up the flow of funds to medical and other researchers, it was time to look to other employment. Computers seemed to be

beckoning, and I applied for a job doing computer sales and software support at Whitcoulls in Dowling Street. One of my first challenges was to solve a long-standing problem with a customer that had bought Lotus Symphony, an integrated spreadsheet, word processing and graphics package. He had problems printing on a printer with a tray of single sheets. The form feeding was working incorrectly, and no one else had managed to solve it. After about 30 minutes on site, I figured out what was happening and found a way around it. One problem solved, one happy customer and I knew that computers were for me.

The branch I worked at was closed down when the company that owned it decided to do away with its business-computing store. Luckily for me, another computer store was looking for someone who could do sales and software support, and, because I had started commercial programming, I liked that as well. Within a short time though, I knew that Dunedin offered few opportunities in computing, and I decided on moving to Auckland where I had a brother and other relatives living. It was with some sadness that I left the most character-filled city in New Zealand in search of greater employment opportunities and challenges.

Auckland exposed me to larger companies but also to business partners you had to be careful of. After one job installing Novell networks, I settled in working for a company in West Auckland where I wrote a large number of packages for customers in different industries. These varied customers exposed me to problems of many types whose solutions were simple ones. In 1987 just before the stock-market crash in October, I had written the first version of a Futures and Options back office trading package that specialised in the US market. One of the local users wanted to do margin trading on foreign exchange (FOREX or FX) deals, and the first problem that arose was how to define the relationships between currencies. The exchange rate as quoted between different currencies has a tradition in different markets to be used as either a multiplier or a divisor to exchange an amount in one currency to another. When I asked the brokers how this was defined, it was immediately obvious that they had absolutely no idea. The worst possible solution was to have a two-dimensional table of all currency pair combinations with a high-maintenance problem of keeping it up-to-date. Refusing to accept that approach, I looked for something simpler, and intuitively came to a suggestion that I needed to have two tables of values, a ranking table and a relationship table. This worked a treat, and meant my customers only had to update a minimal number of rates between the USD and all other trading currencies, and the rest could be calculated from the tables.

My next big challenge was with a multilevel marketing company based in Dunedin who wanted a way of managing a binary tree (from the highest level, each descending branch splits into two) of members and their positions. That wasn't that difficult but what was was the need to be able to allocate blank positions in the membership database to new members who were sponsored by another member. Databases are designed to find records. In this case, I needed a database to help me find missing records beneath any location and the first position in the highest level available. This took two to three days to suss out, and what I ended up with was a bitmap

representation of the database built up in blocks to represent groups of records in the membership database. Once the sponsoring member was located, I then proceeded from left to right a level at a time, with each subsequent level becoming wider, looking for the first available position. The company got into strife with the Commerce Commission on its similarity to pyramid selling schemes, and ceased trading, which left me out of pocket for several months' work but the problem-solving experience provided another step in the direction of building a simplicity instinct.

But it was in politics that I found intellectual stimulation to develop the skills that made it possible to understand principles of things, and thus be able to develop an understanding of simplicity and the many things related to it.

In Auckland in 1987, I enrolled in a number of personal-development courses including public speaking, ballroom dancing, classical singing and a philosophy course run by the School of Philosophy. This had been founded by a westerner who had spent some time in India in the presence of one of the eastern philosophers, and when he returned set up a school based on the teachings he had encountered. A year was enough of this course but it did expose me to ideas of practical philosophy but also the faulty thinking of their theoretical underpinnings. The course was supposed to help the average person gain more perceptive intelligence but its arguments, although convincing for simpler souls, were unsatisfying, and I decided to leave rather than keep on debating their ideas and spoiling it for the more passive participants.

At a pre-selection meeting in 1990 to decide the next candidate for the National Party for the Eden electorate, I met Michael Bowden, a quietly reserved resident with a large rental property in the suburb. He was a couple of years older with similar interests in politics. We started talking regularly at a Friday-night meeting place in Balmoral, and one night we talked about a park that a local body council wanted to make a women-only sports park. We wrote a letter complaining about it, and due to the unacceptable response I decided to look into this area further.

The further I looked, the more holes I found, and soon I realised that there was something wrong in the State of Political Correctness. After finding a swag of material, I decided there was enough for a small book. Once I embarked on some more lengthy analysis, I found some very flawed and unprincipled thinking involved in the Human Rights Act, the International Year of the Family (mainly anti-family) and all the little coteries driven to push their own peculiar wheelbarrows.

As I unbundled the principles from the emotive mires, I began to appreciate the massive levels of intellectual dishonesty inherent in the proponents of political correctness. Once I had self-published a book that sold around 1000 copies, enough to cover my costs, I retained my interest in this field but began to concentrate more on my own business, which had started after I left my business partner over his dishonesty.

In setting up my own business, I had taken clients with me, and they provided enough

work to get started. Over the next five to eight years, I made numerous contacts and became involved with a package for the Flat Glass industry. Being asked to support a package with five to six megabytes of code is a big ask, and I needed a tool to allow me to look at that code both at an overall level as well as being able to drill down to the lowest levels. No such tool existed around 1995 so I wrote my own tool, which I still use today.

Business trips took me to the States where I worked in several factories on production scheduling capabilities and gained valuable experience and contacts.

After a fall-out with yet another partner, this time due to his family, personal and drinking problems and his sometimes unethical behaviour, I left him aside and continued to develop a Windows package for the same industry. That set me off on an often-arduous but fascinating journey that follows.