A Polite Chat with Dr Brian

By Peter Hawes

Brian Whitworth came to NZ at age five from Oldham, Lancashire, aboard the Captain Cook. He left behind, without regret, a one-tap house with no bathroom and an outside lav shared by three families. Some years later he completed a maths degree from Auckland University – maybe he'd been the lavatorial timekeeper in his youth in Oldham. Then he did a BA majoring in psychology. Then a Masters in neuropsychology. Then he joined the Defence Psychology Unit of the NZ Army. Then transferred to the Defence Computing Unit. After this, a PhD in Information Systems at Auckland Uni, then a move of some years to the New Jersey Institute of Technology as an assistant professor, `competing, at 50, with 25-year-olds'.

Now he's a senior lecturer at the Institute of Information and Mathematical Sciences, Massey University, Auckland. Here he brings the vast breadth of his experience to bear on a field of science so new to the world that `it has no textbooks yet (he's editing the first).

And no one quite knows where the work of Dr Whitworth and his colleagues will lead.

Hopefully it will lead into every computer in the world and especially into mine, which has always bullied me mercilessly. Because Brian Whitworth's aim is to civilise computers, tame them, make them nice – a sort of software whisperer. He works in the altruistic field of socio-technical design. "It is assumed that we are the top animal on earth because we're clever," he says. "I think, no, it's because we're social. I'll give you an example; after WWII, two of the cleverest men on the planet, the philosopher Bertrand Russell and John von Neumann who invented the computer, said the Americans should A-bomb Russia before it got the bomb too. Imagine the consequences! That was cleverness at work. And computer designers began by making clever, not social software. They were socially blind."
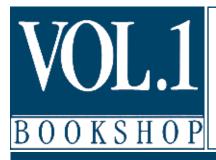
The result was what he calls "impolite software" which acts "Like a selfish child… as if only he or she exists… as if it were the only application on your computer." So, it starts itself up at every opportunity – whether you want it to or not - runs continuously in the background and "feels free to interrupt you at any time, to demand what it needs, or announce what it's doing…"

An unforgettably regrettable result of boorish computer design – which, perversely, was probably an early attempt at user-friend-liness - was Mr Clippy. You'll remember him, the maniacally helpful paperclip who turned up on screen-right to `help'. And if you ignored him – as folk writing 400 page novels (like me) often did - he yawned, curled up and went to sleep. Visible testimony to the boredom you were generating with your honeyed words. He was, so Brian Whitworth told me, the third most hated piece of 1990s software. Ye gods; what were numbers one and two?

"Impolite software," Dr Whitworth explains, `is why, after 2-3 years, Windows becomes old." It clogs itself up with taskbars of self-important icons and accretions of left-over files and registry records. And worse, much much worse, it has no recollection of having met you before – you (who probably paid for the damn thing) may be the only human it has ever encountered yet it will always – sometimes every five seconds – assume you are a stranger and begin at the beginning. "Such amnesia is a trademark of impolite software."

Impolite programmes are insidious, invidious things that can: "1) Use your hard drive to store information cookies or your long distance phone services for downloads. 2) Change your computer settings. 3) Spy on what you do online." You are, in other

words, being techno-burgled by your impolite computer.

For example, and to name impregnable names, Microsoft's Windows XP Media Player used to "phone home" with snippets of your data, useful, presumably, to "home". Other now-pregnable names are Triton, Yahoo, Internet Explorer… breakers and enterers into unwary software. "Security cannot defend against people one invites in, especially if it is the security system taking advantage… modern airport toilets seem more aware of their users than the average personal computer!" thunders Dr Brian.

Ask him if he actually likes computers and the answer is, semi-surprisingly, yes. In a way, as you listen to him, you realise that they suffer from bad cred. They are the victims - as much so as are John Mitchell and Graham Henry - of fervid over-expectation. "By now they (computers, not failed rugby coaches) were supposed to be doing so much of our work that we'd be on a four-day week. Instead, we're working harder than ever." They are, frankly, a disappointment; a bit like that all-but-forgotten space station up in orbit – cripes, what it wasn't going to do for the human race. Like the Shuttle. Hell, like the Apollo moon project that just fizzled into ennui…

Computers, opines Dr Whitworth, haven't got as smart as we expected; when it comes to conversation, language, pattern recognition (as their calamitous attempts to recognise baddies at airports attest); they are woefully behind our own native competence. As for such motor skills as in – well – motoring, they're so bad as to be unconsciously suicidal. Computers are brilliant but helpless. They need constant minders – they are, says Dr Whitworth, like Dustin Hoffman (Dustbin Huffman to my impolite spell-check) in `Rainman' - able to calculate 20-digit primes, then needing a nappy change.

The answer, to him, is obvious - socialise the technological: "It is astounding that major software manufacturers like Microsoft gather endless data on users, but seem oblivious to data on how the data interacts with the user." (E.g. the ghastly Mr Clippy.) "Hopefully tomorrow's software will work for people, not itself."

And to ensure this is the case he calls for Action. – "In human history, freedom and choice are the stuff of revolutions and a grass-roots Internet movement against impolite software is not inconceivable." The revolt, in other words, of the non-machines. The result will be a machine not so clever as to make humans obsolete (the underlying fear of us all) but a human/thingy combination, better than its parts.

There were two threads of human evolution, Dr Whitworth believes, the social and the technological. He muses that perhaps early Nature had tried cleverness and calculation as a first-up compensation for human inadequacy as a creature in the wild, then turned – rather in desperation - to sociability. Well, now he wants a combination – a partnership between thoughtful, considerate cooperation and hard-arsed rationality – Bill Clinton hugs the Rainman.

The consequences of Dr Brian's work will be wide-ranging, outstanding and probably unexpected – think back five electronic years – did you know what was going to happen next? Already the variety of his output has exceeded the scope of this article, so we'll specify.
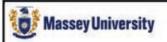
Dr Whitworth sticks it to Spam, for example, and comes up with a totally apposite and wonderfully witty solution: "Social logic suggests that rejected e-mail belongs not to the receiver who rejected it (all of us), nor to the system that delivered it, but to the sender who created it." He has devised a way of returning all that shit to sender! Brilliant!

Then there is his audacious challenge to quantum physics and relativity, which is so far off the wall as to leave you wondering if the wall is still there or ever was: THE PHYSICAL WORLD AS A VIRTUAL REALITY. Here is the case for a virtual universe; prove it wrong. And what a glorious argument he puts up! "Given the Big Bang, what is simpler - that an objective universe was created out of nothing or that a virtual reality was booted up?"' Objective reality (OR) can't explain the Big Bang, VR can. And again: "The mystery is that the tiniest parts of the universe have no mechanisms or structures by which to make such decisions. Yet if the world is a virtual reality , this problem disappears."

He makes eleven such points – why light bends, why mass increases with speed - all of them compelling, fascinating and sometimes hilarious. But never frivolous; he is "freeing up options for people to think about different types of processing and how they might work." Such is his authority, he brings dignity to science fiction.

And I shall certainly write him a thank you note on my polite computer on the day it arrives.