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Technology: Thoughts From An Unlikely Switch-Off Activist

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The IT industry loves my family. We're the kind of folk it refers to as 'early adoptors.' True, we don't own mobile phones (for no other reason than we hate them), but when it comes to most gadgets — digital voice recorders, music software, wireless internet and so on — we're proudly among the first, most fervent users.

This would, perhaps, come as a surprise to the Government bureaucrat who last week called my views on wireless internet 'extreme.'

She was responding to the suggestion that the powerful wireless router installed in my son's Prep classroom be switched off when not in use.

This router services the whole school. The school has been told it can't switch it off — not unless it wants to shut down all teachers' access. And if we switch it off, what message would that send to every other Victorian school which has just been outfitted with wireless internet (wi-fi) technology?

Thanks to Lukas

Hell hath no fury like a mother whose efforts to protect her child are stonewalled by bureaucracy.

My unwitting career as a switch-off activist began a couple of months ago, after I read a BBC *Panorama* report that cited mounting evidence of dangers of wi-fi in schools. The report claimed some school wi-fi routers emitted up to three times the electromagnetic radiation (EMR) levels of mobile phone tower pads.

Is the report accurate? Is this the case in Australia? I don't know, because the Victorian Department of Education can't tell me.

But they did see fit to install one of these routers in my son's Prep classroom. When we finally discovered this, in third term, parents started asking questions. Questions about evidence suggesting

that exposure to wi-fi in the classroom causes DNA and chromosome damage to young bodies.

According to Sir William Stewart, Chairman of the UK's Health Protection Agency, these devices shouldn't be installed around schools and playgrounds.

'If you look at the literature,' Professor Olle Johansson of Sweden's Karolinka Institute told the BBC, 'you have a large number of various effects like chromosome damage, you have impact on the concentration capacity and a decrease in short-term memory, increases in the number of cancer incidences.'

So I Googled. In the UK, the Teachers Union is calling for a ban on wi-fi in schools. In the US, a class action lawsuit filed by parents at an Illinois school cites:

a substantial and growing body of scientific literature... outlining the serious health risks that exposure to low intensity, but high radio frequency poses to human beings, particularly children… prolonged exposure to low intensity RF radiation can break down DNA strands, cause chromosome aberrations... these occur at radiation levels below what a child would be exposed to by sitting in front of a computer on a wireless network… researchers have observed other potential health risks that they believe are traceable to exposure to low intensity RF radiation at levels that are at or below what children would experience by using wireless LANs [local area networks] in a classroom.

The lawsuit claims to cite 'more than 400 scientific articles, summaries and references outlining health risks from low intensity RF radiation exposure, all or most of which have been researched and written after 1995.'

Around the world, there are reports of wi-fi sensitivity, and debunking of the World Health Organisation's blinkered approval of the technology. One WHO scientist has broken ranks to speak out about the risks. (My brother-in-law suffers wi-fi sensitivity, experiencing a headache as soon as it's turned on. Reportedly, so does bestselling author Kate Figes.)

So parents started to worry about the powerful router that our children have been learning and playing under all year. When my son came home, he was subsequently exposed to our home router all night. (We unplug it these days.)

It seems necessary to re-state that we — the group of concerned parents — aren't luddites. Collectively, we're not convinced of the dangers (one parent, an electrical engineer, told me he suspects Professor Johansson's work was reported out of context), and we hope they don't exist. But all of us believe in science's age-old precautionary principle. Having learned more about the putative risks, we now believe the Prep room router should be turned off immediately until the jury is in. At the very

least, it and its signal reach should be relocated.

So when our questions to the Education Department met with industry spin, our collective bullshit-detectors sirened.

Here's what the Education Department did. It fobbed us off with a link on its site claiming that 'scientific consensus on the safety of exposure to radio frequency electromagnetic fields.'

First mistake. We're an educated bunch, the parents at BEPS. As far as we're aware, the only area of scientific consensus is gravity. (And climate change, if you ignore the 1 per cent on the lunatic fringe.) For a Government authority to make such a claim, we feel, is scandalous.

Parents at BEPS have commented on the paucity of internet literacy within the Education Department itself. Its bureaucrats, we suspect, haven't yet learned to Google. Had the crats done their homework, they would have found a reported 50-50 split in the scientific literature on this issue. Half the studies suggest serious health risks, half don't. 'They can call me extreme,' said one mother, 'but I don't consider that "scientific consensus".'

(A review of funding of each half would be interesting. A study in the *Journal of the American Medical Association* concluded that industry-sponsored studies are nearly four times more likely to reach pro-industry conclusions than independent studies. But fewer of the latter are being funded.)

A simple search, I told the bureaucrat, would have alerted the Department to comprehensive refutation of its spin-doctoring.

So now, between tax returns and work and PhDs and grocery shopping and fundraising and car-pooling and in-laws, BEPS parents are trying to do our own homework, leaving us with even less time with our kids.

The more we research, the muddier things become. Some of us are weary of all the bunking and debunking in science reports, many of which rely on dial-a-quotes, not original sources. Reading them, we swing between alarm and comfort; our alternating anxiety and relief collapsing into skepticism of both sides.

'Why won't the Government do its job?' one of the more conservative parents, a woman with two children at BEPS, asks. As parents with jobs and life-loads, we can't be expected to wade through the scientific literature and try to interpret it for ourselves. In letting this responsibility fall on us, we believe the Department is breaching its duty of care.

Even if the technology proves safe, we will still feel this way. The evidence about putative dangers isn't

conclusive. But while the jury's out (and it clearly is), we've asked the Government to exercise responsible precaution (and at least acknowledge the literature). Food is recalled even if there's the remotest threat of a risk. So are toys and pharmaceuticals. Not technology products.

'Go to the media,' suggested one parent. So we did.

How did the Victorian Education Department respond? It wheeled out the 'scientific consensus' canard again, as if by repetition this will somehow come true. A spokeswoman thought it fitting to tell *The Age* there is 'no evidence to suggest a link between the use of wireless networks and damage to health.'

Go on, then. How did the Department arrive at this collective denial? I learned how. It bases its opinion on industry spin that cites research conducted between 1982 and 1992. Research done decades before wi-fi was introduced; some of it 25 years old. All of it before 1995 — since which time at least 400 studies suggesting health risks have been published, if we're to believe the Illinois lawsuit. But the news media doesn't report this. It has space only for he-said-she-said.

Having just spent millions installing these devices in schools, the Victorian Government is digging its heels in. My feeling, based on its actions so far, is that it would rather go into damage control than consider the health risks to our kids. It assures the school it forwarded our concerns to its risk assessment firm, but it hasn't answered my request for a timeframe for a response. Given its handling of this issue so far, I can only suspect the risk assessment firm has been briefed to assess the likelihood of damage not to our children, but to the Department.

With our school council meeting another week away, parents are talking about how to play it from here. Each day of bureaucratic inaction I send my little one — my special boy — to learn under the silent, invisible signals from the device we know nothing about. With that big question-mark hovering over his head every day, I feel a little sick, and I'm starting to live with a clenched uneasiness about the months he spent exposed at school and home, 24/7. It's distressing for parents. As skeptical as we are of all the studies, as much as we like to think the danger is unlikely (less risk than the microwave in the school kitchen, say some reports), we aren't willing to have Government departments drag their feet. Not for a day longer.

Last night, when I watched my beautiful boy sleep, I wondered what scientists' warnings about 'damaged chromosomes' from EMRs might mean. *Really* mean. At a visceral level, in the architecture of his DNA. Would the gene sequences become wrongly organised, would they throw a spanner in the molecular machinery that copies and repairs his (most exquisite) DNA? Would this damage amass to one day produce wrongly-folded proteins that misinstruct his cells to become cancerous?

Science scares can play out as hysterically in the media as this does in my late-night imaginings. Public

trust in science is said to be in crisis. As the 50-50 split in this case confirms, for all science's secular posturing, in practice it isn't always as ideology-free as so me journalists seem to think. (ABC science journalist Anna Sellah wrote a brilliant PhD thesis about this.)

And as much as science reporting can fear-monger needlessly, it can also be hopelessly conservative, intimidated by 'authoritative' statements like the Department's, and reticent to report risks or radical research results. Julian Cribb has documented how fearless and rigorous reporting of science is discouraged. We're all worse off. It makes parents cynical.

Angry parents + safety risks + little children + bureaucratic incompetence = news. That's the power BEPS parents wield, but most of us are not yet prepared to play the hysteria card.

From all walks of life, all stripes of politics, we're not a hysterical mob. We're united by the unyielding force of love for the little people who've played and learned under that device all year. The most powerful of forces. It moves all sorts — even the conservative — to mobilise.

If the Department continues its inaction and more days tick past, I'm certain this will make radicals of moderates. We will do whatever it takes to get the thing switched off until rigorous independent assessment of the evidence is forthcoming. Whatever it takes to stop bureaucrats feeding us spin and playing roulette with our children's health. As any parent would. 'Extreme?' said a rural mother who rang me after hearing our plight on ABC's Jon Faine show. 'They ain't seen nothing yet.'

About the author:

Katherine Wilson is a mother. Her last science feature story, published in the *Good Weekend*, won a Melbourne Press Club award.
