

# Alberta Doctors' Digest

## Can technology replace doctors?

I attended a clinical symposium some time ago, and one of the presentations was exceptional. The topic doesn't matter.

I'll explain. The talk was meant to be a short one, confined to the 10 or 12 minutes apportioned each speaker. As per usual, however, preceding talks had gone overtime, so the pre-lunch atmosphere was hurried, even tense, preparing for the final morning speaker.

Not one, but two dilemmas presented themselves at once. The microphone began to screech as if it were mortally wounded and to add to things gone awry, the speaker – I'll call him Brad ^ – found that his laptop, and with it his presentation, had gone missing.

What to do?

A decision of some sort was necessary, and Brad decided to press on without the benefit of a functioning microphone and slides. There were a few shaky moments at start up, but Brad soon abandoned the podium to stand at centre stage, closer to his audience, and, in tones that became almost conversational, he recounted the several developments in his field – ambulatory surgery, but the topic was incidental – that could be considered important and promising.

Without benefit of a microphone, the audience sat up and, leaning forward in their chairs, were especially attentive. Without the usual panorama of lights and sounds that attend most slide presentations, Brad's talk was clearer, more focused and more accessible than I was used to. There was less coughing and jiggling and fewer sidebar conversations. The gist of his message came through perfectly in a presentation that was perhaps briefer than the one he'd planned, but there was enough time for him to summarize his message a final time before closing. The audience had a few questions, but these, too, seemed more direct and more pertinent than usual.

It was the best talk of the day.

I was surprised at the success possible without the usual techno-wizardry that accompanies presentations, but I was pleased that we could get by and even triumph without it. I question much of the putative progress in our lives, especially our growing dependence of computers, sensors and other processes that don't work the way they should.

Examples abound. Consider shopping – for groceries, clothes, pretty much everything. Cashiers and sales clerks are going the way of the dodo bird, perhaps take a picture of one now, for historical purposes. Try other things, like going to a movie or parking in a lot downtown, and you'll find there are unexpected hassles. You'll need to register in several new databases here – more work for you and more passwords to remember. Speaking of passwords, don't forget banking. There are oodles of ways to bank now – phone, the web and so on, but unless you're as rich as Jeff Bezos or you're on a most wanted list somewhere, no one really wants to talk to you. When the inevitable snafu occurs – and one will occur! – you're forced back into a phone queue or a physical one,

listening to awful music and taped interruptions that remind you that you're a much-valued customer.

If you are merely out shopping, beware of technical mischief from public washrooms. These won't be hard to find: you can often hear them from a distance as the infra-red sensors on public toilets seem prone to paroxysms of flushing, sometimes in unison with all the others. Of course the manual flush mechanism doesn't work either, and as you exit you're uncomfortable at what you may be leaving behind.

The faucets in the sinks, too, were once technical marvels but three of four no longer work on repeated hand waves. With luck, one may offer up a feeble stream but, no matter, the soap dispenser is empty. The towel dispenser works, to a point, dispensing a thrifty bit of tissue which you can toss once you use it to turn the door handle on exiting.

If this summarizes common experience, even with hyperbole, let me admit that I'm a card-carrying Luddite, one of those oldsters who avoid modernity to the extent that this is possible. The Luddites, recall, were English workers opposed to new technology who wanted to destroy machinery in wool and cotton mills, but the reason for this opposition was their fear of losing their jobs. It seems long ago, but I've come across a quote from Queen Elizabeth I (yes, the First) regarding [aggravation caused by new technology](#) and the invention by William Lee of a stocking frame knitting machine in 1589:

"I have too much love for my poor people who obtain their bread by the employment of knitting to give my money to forward an invention that will tend to their ruin by depriving them of employment and thus making them beggars."

Despite the Queen's disapproval, Lee's invention mechanized textile production and led to attacks on factories by a secret society of weavers called the Luddites who destroyed the machinery involved.

Given this cautionary tale, I'm comforted by the fact that, at times, we can still get by without our technical inventions. I'm happy but not smug at our resilience as things are about to change. Experts in numerous fields warn we are at the very beginning of a golden age of artificial intelligence.

Much of the innovation we've seen so far trims costs, particularly the costs associated with human labour captured under the rubric of efficiency or productivity. So far this has impacted the livelihoods of those at the lower end of the economic totem pole. As well, job production, albeit requiring more sophisticated skill sets, has kept pace with technological re-engineering and innovation.

For the longest time observers reassured us that certain activities were sufficiently political, strategic or required unusual skill sets and would be safe from technical invention, but that was before the computing power devoted to AI began to double every three or four months. Credible research now predicts that perhaps half of all jobs are at [risk of automation](#) and that few domains will remain untouched by advanced AI. Too close for comfort, Vinod Khosla, founder of Sun Microsystems, has predicted advanced technology will [replace 80% of what doctors do](#), and this over a mere handful of years.

We've been indisputably bad at supporting those impacted by new technologies, and this lack of support remains an enormous concern. Once our innovation is jet fuelled or

self-perpetuating, or whatever the appropriate term may be, who knows what we'll be doing?

A final task – unending and difficult – will be to gauge our progress, alongside our innovation and technical achievements.

They're not always identical.

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Editor's note:

The views, perspectives and opinions in this article are solely the author's and do not necessarily represent those of the AMA.

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