Upwardly mobile

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We continue our series in which Consultant Interventionist Dr Michael Norell takes a sideways look at life in the cath lab…and beyond. In this column, he considers the impact of mobile technology.

Last week I found myself in our attic rescuing a vital item that had been stowed away, albeit on a temporary basis. A couple of years ago, and in the best interests of a young child's mental development, I had bought Ellie (now aged four) a Scalextric set. It rapidly became apparent that she was going to require a few more years of finger-eye coordination, not to mention a basic understanding of the Highway Code, before she could appreciate this important learning opportunity.

Nevertheless, as a doting father, I naturally persevered in teaching her the finer points of accelerating out of bends, chicane strategy and using banking to its maximal advantage. However, even after a few months, she still persisted in squeezing the throttle as hard as possible and gazing in wonder as the Jaguar XK8 (with illuminated front and rear lights, by the way) achieved maximal velocity up a bridge ramp, left the flyover and landed on top of her wardrobe.

Hence, somewhat reluctantly, I was obliged to confine this educational tool to the loft where it remained undisturbed… until now.

The discovery

As I eased my way across the roof space towards the enormous and brightly coloured box of track, safety barriers, transformers and cars, my eye was caught by the contents of an ancient packing case that had lain dormant for the best part of 20 years. Lying on top, and amidst an impressive coating of dust and what might otherwise be termed bric-a-brac, was my first ever *mobile phone*.

It had the dimensions of a house brick, doubling its length when the aerial was extended, and I looked at it with a sense of wonderment. The impact that such technology has had upon the developed – and even the developing – world, has been immense. After these devices became universally available, *Homo sapiens* were never to be the same again.

Admittedly its functions were limited; all it could do was to make and receive phone calls, and this with varying degrees of predictability and success. Two decades later I now have a device in my back pocket with which I can do everything except boil an egg (it might actually do that as well; I haven't tried). Admittedly, in terms of performing its primary function (to make and receive calls; *remember*?) it is still as temperamental as were its countless predecessors.

The onward march

I have tried to resist the march of mobile technology, desiring nothing more than reliable two-way voice communication. But over the years, I have had to give in to the value of texting, spontaneous photography, instant satellite navigation and immediate email access, let alone a plethora of *apps* that range from the completely pointless (a spirit level?) to voice recognition software.

As it happens, the latter has proved immensely useful, opening up new possibilities in composing emails and texts while on the move. Unfortunately, no matter how clearly I pronounce my much considered prose, the resulting text that appears for copy/pasting after a few seconds of 'processing' can still be incomprehensible, bizarre and, in some cases, frankly unprintable.

Is society safer, or better off? In terms of healthcare, and particularly from a cardiological perspective, one would have thought that access to the emergency services must be quicker now that one no longer has to hunt around for a red telephone box in order to summon an ambulance. Acknowledging that cell phones can also be distracting – while driving a car for instance – and using a somewhat crude metric, I nevertheless suspect that they have resulted in a net saving of lives.

At what price?

But there is a price to be paid for the luxury of immediate access to other individuals, and that is peace and privacy. Busy pavements are now occupied by persons engrossed in constant conversation but, oddly, not to anyone next to them. As a result, and in whatever public area we find ourselves, the level of general background noise must be higher than previously, and that is not even taking into account the now ubiquitous phrase while travelling by rail, namely: "I'm on the train!"

I remain surprised that in this modern era we still fail to follow the basic rules of telephonic communication. Sailors are required to hold a

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license in order to use a VHF radio transmitter, and so have to pass a short exam. I can testify to the fact that it is fairly simple (and sadly adds little to your CV), but it does provide some structure when two parties are trying to interact verbally.

Being clear and unambiguous, as well as spelling any necessary words using an internationally agreed method (Alpha, Bravo, Charlie, etc.), seems quite reasonable. Perhaps we should apply this type of discipline to cellular calls. When A phones B and A suddenly gets cut-off in mid-conversation, we remain confused as to whether B should wait for A to phone again, or take it upon himself to contact A (only to find A engaged and so be re-routed to A's voicemail because A is trying to get through to B again). This process could go on for hours; valuable time could be avoided if simple rules were in place.

The future

With the advent of nanotechnology, the only limitation to the ever-decreasing size of a phone will be one's eyesight, and, therefore, the ability to read the screen, and the size of one's fingers able to move less and less nimbly over an increasingly microscopic keyboard. A miniature phone in the form of a wristwatch is, therefore, unlikely to be very useful.

So how will mobile phones be designed in the future in order to sidestep these two immutable anatomical restrictions? While inventors will feel that they have to think 'outside the box', I would suggest that the answer may well reside *inside* the box.

Interpersonal communication in the future will use a device implanted behind the ear. It will feed directly into the lughole (for sound) and project its visual output directly onto the retina, akin to the heads-up display in a fighter pilot's helmet or onto the windscreen in some cars. A secondary 'chip' in a fingertip will provide a remote 'mouse' function, such that the world will become populated by individuals appearing to talk to themselves while moving or pointing their index finger in a seemingly bizarre fashion.

Progress? I suppose so. Frightening? You bet. I think I'll play Scalextric with Ellie instead