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USING A GPS IS EASY, BUT READING A MAP MIGHT HELP YOU LIVE A LITTLE LONGER,
SAYS ALISTAIR MACLENAN

On the dangerously distracting satnav screen that dominates the dashboard of my car, there is a button labelled 'Take Me Home'. Whilst being shown the fastest route back to my home from wherever I am is extremely useful, there have been numerous occasions when I would have preferred it if I could have curled up in the back seats and slept as the functionality truly lived up to its billing and drove for me (see previous articles).

But if the fully-autonomous car is not yet available, the semi-autonomous driver is an extremely common sight on roads all around the world. So many of us have become remarkably willing to abrogate our mapping decisions to the devices that grip like limpets to the inside of our windcreens. And drivers are not alone – walking down a crowded street involves constant weaving and dodging to avoid heads-down pedestrians who are looking at maps on their smartphones.

I deliberately say 'looking' because 'reading' a map is an expression that is rarely heard. That's because it doesn't happen. Reading a map involves you. It is the effort you needed to put into finding out where you were and to working out how to get to where you wanted to be.

Not for nothing is the 'You are here' arrow one of the most popular features on publicly displayed maps – next time you see one that is in touching distance of the public, look at the tell-tale wear around it as people place a reassuring finger on it before using their brain to work out their next move.

Where you are is a relative concept. Think about how you describe your location to someone else: 'I am outside the south entrance,' 'I am near the big clock' or 'I am in the river, please come quickly.'

So one of the most detrimental, although presumably unintended consequences of the wholesale adoption of using GPS on mobile devices to tell us our location is that where we are is now taken out of the context of the local environment. And this can lead to some very serious problems.

The number of stories about huge delivery lorries getting stuck in the narrow roads of small villages because their drivers slavishly followed the satnav instructions have decreased – probably because the road network data has improved or the media has moved on to other, more weighty subjects. But other examples grow in frequency every day.

Notably, search and rescue organisations all over the world have reported a huge increase in the number of call-outs to people who have taken only a mobile phone or other GPS-enabled device with

them for a fun day's walking on the mountain. Ignoring the lack of a mobile signal on the mountain and the limited life of a battery, people assume that the technology will guide them to the summit and back in safety. But even if they have coverage and are towing a battery that will last the length of the journey, the lack of context represents real danger.

Contour lines on a map show the change of terrain and when they are piled high, one on top of the other, you should know that the terrain changes very quickly – most people call it a cliff, something you may want to take into account when looking down at a screen showing the shortest route to your destination. Having the skill to read a map may keep you alive in the short term...

More importantly, repeatedly reading maps may have a bearing on the quality of your life in later years. Humans' capability to remember and navigate resides in their brains' 'hippocampus'. When joined with activity in the entorhinal cortex, people are able to visualise, calculate and modify routes from one place to another. The theory is that constant use of these regions, by learning routes, recognising landmarks and calculating relative positions, causes them to maintain their function.

More recent work has shown that there is no activity whatsoever in either region when people follow satnav routes. When their involvement in the decision process is removed their brains do nothing, and both these regions are amongst the first to show deterioration during the onset of dementia.

So while taking advantage of technology can help with an easy life, the irony is that people using their GPS to find the quickest way to the gym may not be keeping the most important part of their body in good shape.

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