

## We've got the iPhone habit, so what's it doing to our brains?

January 8 2014, by Ian H Robertson



Everybody's doing it. Credit: Scott Beale

I knew I had a problem when, in the five seconds before the lift arrived, I found myself checking newsfeeds on my iPhone.

The constant, restless fingering of the phone's shiny surface, this filling of every microscopic time-gap in the fabric of the day, is, I suddenly



realised, an issue.

But it is not just me – in every coffee shop, bar, bus-stop, I see hands swiping and flickering eyes checking, pale fingers perfect reflections of the mental restlessness underlying their scrabbling.

There was a time when the people on the train opposite me would either be reading a book or newspaper, or, more usually, leaning back with a slightly vacant expression as their eyes dreamily trawled the passing townscape.

## Nail biting for the brain

I remember in my first year in primary school, seeing a girl I fancied biting her nails. So I, who had never bitten a nail in my life, began to nibble at mine until all at once it was a near-indelible habit burned into my ultra-malleable young brain.

The reflexive pulling-out of my iPhone as the lift approached was, I suddenly realised, very similar to that nail-biting habit, except in one important respect: biting my nails occupied only a tiny proportion of my brain and it could, in fact, by warding off distracting thoughts, help me concentrate on reading that book or doing that sum.

The iPhone habit, on the other hand, is neurologically all-consuming – vision, touch, memory, thinking are all full-on occupied by this gorgeously shiny piece of technological seduction and software systems it channels such as Twitter, Wordpress, Facebook and the rest.

In that five seconds of insight as I waited for the lift to arrive, I saw that I had been systematically depriving my brain of an entire class of experiences which go under the names of mind-wandering, daydreaming or just plain sitting. As one sage remarked: "Sometimes I sits and thinks



and sometimes I just sits."



In the lift, on the device. Credit: mini true

So, how did I react to this insight? Please don't mock – but as soon as I stepped out at the third floor, I searched Google Scholar to find out what cognitive neuroscience might tell me about what I was doing to my brain. In fact, it was so interesting, that I nearly bumped into someone as I shuffled head-down, along the corridor to my office, my face shining with the tell-tale glow of the little screen.

Let's start with memory. People in their early seventies listened to a story and then were asked to recall as much of it as they could. They then either just sat engaging in "wakeful resting" for 10 minutes or they played a spot-the-difference computer game.



Those who had rested for the ten minutes after learning the story remembered 20 percent more of it half an hour later than those who had played the game. Amazingly, and more importantly, these effects lasted a full seven days.

And it wasn't the case that they were frantically rehearsing the story while supposed wakefully resting – <u>debriefing afterwards showed</u> that very little of that went on. These effects, known as consolidation were an automatic process of laying down the memory that goes on in the resting brain, but not the computer-dazzled one.

By now a PhD student had found me standing outside my door, peering into my iPhone – gently, she asked me if I needed any help – I grunted unintelligibly, for by now <u>I had discovered</u> that creative solutions to problems are more likely to come when your mind is wandering than when it is focused on a task like thumbing through a thousand tweets.

I froze, mid-fumble for my keys, eyes screwed into the tiny print. Holy smoke, not only is this digital nail-biting going to worsen my already dodgy memory and stultify my creativity – it's going to affect my mood too. Young adult Facebook users were texted five times per day for two weeks to ask about their mood and Facebook usage: the more people used Facebook at one time point, the more their life satisfaction declined over time.

By now I had just managed to get into my office and was just about to respond to the "ping" of an incoming email on the phone when I lifted my head and suddenly remembered a long-ago bitter taste.

Yes! That's the answer – that's how my mum got me off nail-biting – she painted this revolting green stuff onto my nails.

If I can only force my mind to wander for a bit, maybe I can come up



with a creative way to curb iPhone use – some stinging substance to coat them with, perhaps? Hold on while I Google that ...

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