

## The internet is eating your memory, but something better is taking its place

September 16 2015, by Saima Noreen



Computer memory goes up; ours comes down. Credit: Lightspring

In the years since the world started going digital, one of the big changes has been that we don't need to remember very much. Why risk forgetting



a partner's birthday or a dinner date with a close friend when you can commit the details to your computer, laptop, smartphone or tablet and get a reminder at the appropriate time?

Paul McCartney gave a useful insight into this in an interview over the summer. He claimed that back in the 1960s The Beatles may have written dozens of songs that were never released because he and John Lennon would forget the songs the following morning.

We would write a song and just have to remember it. And there was always the risk that we'd just forget it. If the next morning you couldn't remember it – it was gone.

How different to the way he records now then, when he can "form the thing, have it all finished, remember it all, go in pretty quickly and record it".

With technology now well ingratiated into our <u>everyday life</u>, researchers have been investigating the lasting impact that it is having on the way that we learn and remember information. Some research has <u>suggested</u> that our reliance on technology and the internet is leading to "digital amnesia", where individuals are no longer able to retain information as a result of storing information on a digital device.

In <u>one study</u>, for example, 1000 consumers aged 16 and over were asked about their use of technology. It found that 91% of them depended on the internet and digital devices as a tool for <u>remembering</u>. In another survey of 6000 people, the same study found that 71% of people could not remember their children's phone numbers and 57% could not remember their work phone number. This suggests that relying on digital devices to remember information is impairing our own memory systems.





'I forgot to remember to forget.' Credit: John Raoux

## The upgrade

But before we mourn this apparent loss of memory, more recent studies suggest that we may be adapting. One such study from 2011 conducted a series of experiments looking at how our memories rely on computers. In one of them, participants were asked to type a series of statements, such as "an ostrich's eye is bigger than its brain".

Half of them were told that their documents would be saved, and half were told that they would not. Everyone was then tested to see if they



could remember what they had typed. Those who had been told their work would be saved were significantly poorer at remembering the information.

In another experiment, participants were asked to type a series of statements that would be saved in specific folders. They were then asked to recall the statements and the folders in which the files were located. Overall, they were better at recalling the file locations than the statements. The conclusion from the two experiments? Technology has changed the way we organise information so that we only remember details which are no longer available, and prioritise the location of information over the content itself.

## **Group mind**

This idea that individuals prioritise where information is located has led some researchers to propose that digital devices and the internet have become a form of transactive memory. This idea, which dates back to the 1980s, refers to a group memory that is superior to that of any individual.

According to this account, individuals can collectively store and distribute information using a shared store of knowledge. This store of knowledge means that individuals can access details that they may not know themselves by knowing that another individual remembers it, thus enhancing what information is available to them by communicating with other people. In the same way, <u>individuals develop</u> a transactive memory with the internet and rely on it for information by focusing on where details are located rather than the details themselves.

More recent research has extended this line of work and found that saving information on a computer not only changes how our brains interact with it, but also makes it easier to learn new information. In a



study published last year, the participants were presented with two files that each contained a list of words. They were asked to memorise both lists. Half of the participants were asked to save the first file before moving on to the next list, while the others had to close it without saving.

The experiment revealed that the participants recalled significantly more information from the second file if they had saved the previous file. This suggests that by saving or "offloading" information on to a computer, we are freeing up cognitive resources that enable us to memorise and recall new <u>information</u> instead.

In sum, anyone worrying that technology is wrecking one of our most important abilities should take some reassurance from these findings. It doesn't necessarily mean that there is no cause for concern: for instance McCartney said in the same interview that the songs in the 1960s that did make it to the recording studio were the most memorable ones. So it is possible that the lack of technology made The Beatles better songwriters.

But it may be that just as oral storytelling was usurped by the written word, having digital devices to outsource our memories means that it is no longer necessary for us to try to remember everything. And if we can now remember more with a little help from our <u>technology</u> friends, that is arguably a great step forward. Rather than worrying about what we have lost, perhaps we need to focus on what we have gained.

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