Should we give an iPad to our children?

Update: A modified form of this blog entry was published today in [New Straits Times newspaper](#) (2 Jun 2011)

Last Saturday was Parents-Teachers Day at my son's pre-school. While my wife and I were waiting for our turn to see my son's teacher, I noticed some parents giving their children [iPad](#). One four-year-old child was watching a cartoon video on the iPad, whereas another (perhaps three years old) was playing some educational game.

Children are attracted to the iPad, but is iPad a double-edged sword that hurts our children learning development? (photo from macgasm.net)

This is not the first time I have seen young kids (even babies) with iPad. Scenes such as these are becoming more common. I suspect some parents see iPad as a

convenient tool to occupy their children's time and attention. iPad is certainly easy to carry and, from what I have witnessed, kids are captivated by the ease of use and the versatility iPad can show and do (such as games, videos, photos, picture books, and the internet).

However, I am worried. I am aware of the opportunities computers can offer to my son's learning development. But I am also aware the harm computers can do. And no, I am not talking about the harm from UV radiation coming off the computer screen.

Those who have been following my blog might have noticed the importance I placed on reading. It isn't just reading *per se* that is important. It is reading printed books that is crucial in our development on how we think and learn. Reading off the computer screen isn't the same as reading from a page we can feel and smell.

Two books, one by Nicholas Carr ("What the Internet is Doing to Our Brains: The Shallows") and Mark Bauerlein ("The Dumbest Generation: How Digital Age Stupefies Young Americans and Jeopardizes Our Future") are the two most important books I have read this year. These books affirm by beliefs that reading is absolutely crucial in a child's learning and thinking development.

These two books shoot down the importance of the role played by computers and the internet on learning. As I mentioned in my previous blog entry, these books cite scientific research that show that children who read few books but are prolific in computer and internet use have difficulty in understanding complex ideas and concepts. The key problem is computers encourage shallow reading – the way we "scan" sentences instead of reading every word in a sentence. Shallow reading discourages us to think deeply and to internalize information, so people who shallow read often fail to see and appreciate the overall picture or concept.

Moreover, research have shown surprisingly that schools equipped with computers fail to show any improvement in the children's grades. In other words, there was no difference in school grades before and after the school adopted heavily in computer and internet use.

Another important detriment to computer and internet use is they are a distraction to learning. Reading a text with hyperlinks encourage us to leave the

page we are reading to another page which may instead lead us to another page and so on. The computer screen is rarely just shows plain text. Instead, it has text and picture links and even animation that distracts us from reading and thinking deeply. It is as though we are reading a book while trying to listen in to someone's conversation at the next table.

Sure, it is more interesting, but children learn better holding a real colour pencil and colouring a real paper (photo from weeble.net)

Computers aid in a child's education. It is a useful tool, but it does not replace the importance of printed books and physical, hands-on approach to handling real, physical objects. A child needs to develop the effort and focus needed to understand the text. In addition, proficiency in reading printed books encourage a child to develop self-learning skills required later in life.

It has been my experience that university students have poor self-learning skills. When students are faced with a difficult problem, they often become stumped without someone's help.

Our university students are not self-reliant learners. Even when these students are given books that contain the solution they need, they still fail to understand the information. This disorder is very frustrating to me as a lecturer because I cannot count on books to help my students. I have to explain and teach my students one-on-one. Asking them to read books is of little help. It is not so much that they are lazy to read; the sad truth is they just cannot understand what they have read.

There appears some mental block. The students read, and they understand the individual words – but, for some odd reason, they do not know what the whole sentence means.

There have been some suggestions that playing computer games teaches children decision-making, management, and about moral issues. However, as warned by Mark Bauerlein, there is no scientific evidence of this occurring.

Playing computer games, even educational ones, do not teach children about decision-making and about moral issues, as warned by Mark Bauerlein (photo from dadpad.files.wordpress.com)

Consequently, computers such as iPad, though useful, must be introduced to our children with great care. These tools, like iPad, can discourage our children from reading books. Our children become hooked more to what is on the computer screen than what a printed book has to show. When this imbalance happens, we should be very alarmed.

Plenty of books behind them but paying them no mind when they have iPad...woah! (photo from cms1.good.is)

Before I end, I encourage parents to observe their children when they read a book and when they watching TV or playing the iPad. Any difference? Below I show the difference for my son, Zachary. One photo shows a happy child who is enjoys learning from a book and another a passive, almost in a drugged-state, "learning" through the TV. Which do you prefer? I know which I would like my son to be...

Zachary is often animated during his reading session, showing that

he enjoys learning and the imaginative stories

But an animated Zachary transforms into a passive and quiet Zachary when he watches TV

Are Malaysian university students

becoming stupid with more use of the internet?

It seems scandalous to suggest that the internet is making us stupid. How can this be true? The internet is a cauldron of knowledge. With the right search engine, we could rapidly sift and pull out the relevant information regarding our search question or query. I use the internet everyday, and I admit I am hooked to it. One day without the internet is like a day for me without electricity.

Is the internet changing how we think for the worse?
(photo from blaugh.com)

At work, I use the internet to search for information. I pull out journal articles, read information from Google books, and if I cannot access the article, I only need to email the corresponding author. Sometimes, within a day, the author would reply my email and attached with the email is his or her paper that I had asked.

It has come to the point where I am hardly at the university library looking for journals or books. If there is a book at the library I need, I only need my research assistant to go get it for me at the library (after I searched the online library database for that book). This is in sharp contrast with my postgraduate days, where I would spend nearly everyday for a few hours at the library, sometimes just "window shopping" at the book shelves, looking for interesting book titles to pull out and read.

No doubt that the internet has changed not only our lives but in how we think.

[Nicholas Carr](), in his newspaper article, ["Is Google Making Us Stupid?"](), captured people's attention about the possibility that the internet may have a double edged sword. Nicholas Carr later expanded his article into a book entitled, ["What the Internet is Doing to Our Brains: The Shallows"](). I read this book with great interest because I share some of his worries about the internet.

The internet, Nicholas Carr warns, encourages shallow reading – the kind where we scan sentences rather than reading the words one-by-one. The latter, so called "deep reading", forces us to think, consider, and evaluate more deeply than shallow reading.

In one job interview, I once asked a young aspiring lecturer what his hobbies were. I cannot remember what he said, but I remembered that he did not mentioned reading. I asked him why reading was not one of his hobbies considering the importance of reading to academicians. To that, he replied that reading has become old fashioned. The internet, he said, has replaced books.
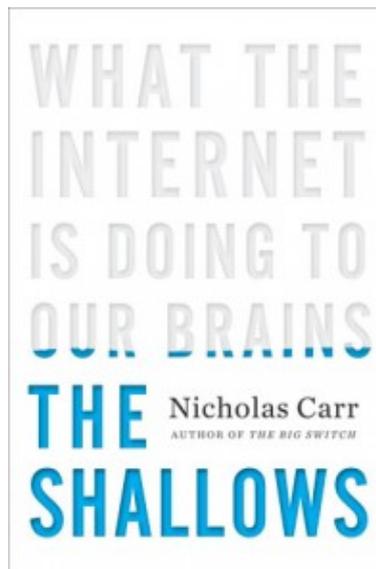

"What the Internet is Doing to our Brains" by Nicholas Carr

Nicholas Carr

And that is the crux of the problem with the internet. While the internet encourages rapid, current, and a multitude of information, the internet also encourages superficial, unfocused, and shallow reading. Stories written for the net must be in "bite-size". Twitter and micro blogs have replaced blogs (such as this one) because conventional blogs contain too many words. Our attention span have become shorter, and we have become impatient with the slower process of internalization of information that we get from reading printed books.

[Mark Bauerlein](#), in his book entitled, ["The Dumbest Generation: How Digital Age Stupefies Young Americans and Jeopardizes Our Future"](#), is relentless in his attack on computers and the internet. Interestingly, he cites several scientific research that showed that the ubiquitous use of computers and the internet in classrooms have no significant effect on improving school grades.
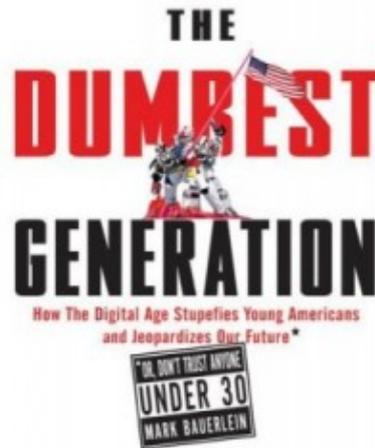
"The Dumbest Generation" by Mark Bauerlein

So while the Malaysian government are encouraging more broadband penetration in the country and encouraging more students to own their own computers, research have shown that we should not be misguided into believing that this policy would make a significant impact on improving our students' intelligence.

Mark Bauerlein

Mark Bauerlein cites scientific research that students who get better grades in schools are not those who are computer or internet savvy. Instead, students who do well in school are those who read books! These students who read books

regularly develop deep reading skills, and they become better in understanding and interpreting more complex texts and ideas. In contrast, students who use the internet and computer regularly (and read less books) instead develop poor understanding of complex information.

Students in my university are shockingly poor in searching for information. Though Google is undeniably a very good search engine (and easy to use), university students are seemingly unable to enter the right keywords to search, and of the thousands of hits Google may return, students have difficulty in identifying the relevant information. In other words, university students may see all the pieces of information, but they are unable to identify the important pieces and are unable to "connect the dots" to see the overall picture.

We should not, Mark Bauerlein reminds us, be mistaken into assuming that students who are proficient in computer and internet are any good in learning and thinking.

Books by Nicholas Carr and Mark Bauerlein summarizes what I see at universities here in Malaysia. Despite the ubiquitous computer and internet access, students read books even less than before. They have poor thinking skills and are poor in identifying important and relevant information. University students remain weak at reading complex texts. Consequently, there is a frustratingly some mental block when they try to understand, interpret, and appreciate complex concepts and ideas presented in the text.

Lastly, the internet has become a distraction to work and thinking. Nicholas Carr mentions this and other notable figures do likewise in the book, "Is the Internet Changing the Way You Think?" (edited by John Brockman). My Masters student has recently told me about her difficulty in writing her thesis. While writing her thesis, she would "multi-task": checking her Facebook, surfing the entertainment news, and so on. I suggested she remove her broadband connection whenever she writes.

"Is the Internet Changing the Way You Think" edited by John Brockman

So, I like to end this blog with an article from [Leo Chulpa](#), one of the contributors in the book "Is the Internet Changing the Way You Think?":

"The Internet is the greatest detractor to serious thinking since the invention of television. It can devour time in all sorts of frivolous ways from chat rooms to video games. And what better way to interrupt one's thought processes than by an intermittent stream of incoming email messages? Moreover, the Internet has made inter-personal communication much more circumscribed than in the pre-Internet era. What you write today may come back to haunt you tomorrow. The recent brouhaha following the revelations of the climate scientists' emails is an excellent case in point.

So while the Internet provides a means for rapidly communicating with colleagues globally, the sophisticated user will rarely reveal true thoughts and feelings in such messages. Serious thinking requires honest and open communication and that is simply untenable on the Internet by those that value their professional reputation.

The one area where the Internet could be considered to be an aid to thinking is the rapid procurement of new information. But even here this is more illusionary than real. Yes the simple act of typing in a few words into a search engine will virtually instantaneously produce links related to the topic at hand. But the

vetting of the accuracy of information obtained in this manner is not a simple manner. What one often gets is no more than abstract summaries of lengthy articles. As a consequence, I suspect that the number of downloads of any given scientific paper has little relevance to the number of times that the entire article has been read from beginning to end. My advice is that if you want to do some seriously thinking than you better disconnect the Internet, phone and television set and try spending 24 hours in absolute solitude."

I could not agree more.