Attention Span Crisis in our Schools

By Natasha Georgiou

Recently, I had a teacher at my school come up to me with a look of frustration and desperation on her face. She had just come from teaching her Year 11 Geography ATAR class. She implored:

I don't know what to do anymore! I have just spent half a lesson going through a task with the class and I was very specific about what to do. They then just sat there and asked me what it was that they had to do, as if they were not paying any attention to anything I was saying at all!

This complaint from teachers about the increasingly noticeable lack of concentration from their students is sadly becoming a common occurrence. Last year, I wrote an article for *Connections*, titled 'A World of Online Distraction' where I discussed how the pervasive use of technology was changing how we think and relate with other people.

I have begun to notice that my own behaviours have changed. I often lose my train of thought in the middle of a sentence as I am easily distracted by some other thought. I find it very difficult to not pick up my smartphone and check my emails or social networks. It is often the first thing I do in the morning and the last thing at night. Even though I am educated and know that what I am doing is detrimental to my mental and physical health, I still continue to do it. Sounds a lot like an addiction, doesn't it? A very common addiction.

Current State of Affairs

The Government's latest findings on how we use technology in our lives was released by ACMA at the end of March. The following video gives an interesting overview of Australians' digital lives:

{youtube}JJAFbKmHBpA{/youtube}

Australians' digital lives—research acma report by acmadotgov

The research on young people's use of technology has even prompted the Federal Government to address the issue of attention spans being affected by technology use in their new Cybersafety module for kids called **#Game On:**

A frequent criticism of your generation is that you have short attention spans. Not only does the average attention span clock in at eight seconds, it is also shrinking, with experts predicting that very soon it will only take six seconds for you to move on.

Further studies suggest that you shift from tab to tab, window to window and use multiple platforms simultaneously, moving on whenever you are bored or tired, turning your attention to something new to change your mood. You abandon websites that take too long to load.

The Crisis of Attention Spans

So what is attention span? Attention span is the duration of time dedicated to a particular task before our mind drifts away from it (Culverhouse, 2009). According to research posted on the USA's National Center for Biotechnology Information (Weinreich et al., 2008), the average continuous attention span of Americans focusing on an Internet site in 2013 was eight seconds, a decrease in four seconds from 2000. Their research also revealed that 25% of teens forget major details of close friends and relatives, that an office worker checks their email inbox an average number of 30 times per hour and only 4% of people spent longer than 10 minutes on a single webpage (Attention Span Statistics, 2015). From this research many sites went further and

proclaimed that humans had shorter attention spans than goldfish, although this statement is not backed up by any empirical studies.



(www.huckleberrybranding.com, 2015)

What we do need to note here is that even though the above widely quoted research relates to Internet use only, other research has shown that:

Continuous attention span may be as short as 8 seconds. After this amount of time, it's likely an individual's eyes may shift, or a stray thought will briefly enter consciousness. However, these short lapses are only minimally distracting and do not tend to interfere with task performance.

Dukette and Cornish go on to state that, "Attention spans in children may be 3 to 5 minutes, increasing as we age to adults being about 20 minutes" (McCall, 2014).

Even though there is dispute regarding how long our attention spans actually are, there is enough circumstantial evidence to support the claims that we are becoming an increasingly distracted society. Why are we struggling to stay focused? This obviously requires a complicated answer but in simple terms some of the common reasons could be attributed to:

- Our reliance on technological devices
- Continuous-partial attention
- Increased stress
- Information overload

Reliance on technological devices

There has been much written on how young people are dependent on their smartphones when it comes to problem solving. How many times have you seen people whip out their phones or use their computers to solve simple numeracy, literacy or navigational queries? Yes, we all use these devices, but I am quite certain that most adults know how to work out the above problems without using technological aides. It has been stated that "For all the convenience such inventions have brought to our daily lives, the reliance on the same has lulled us into not thinking for ourselves" (Baggs, 2013).

Continuous-partial attention (CPA)

CPA is "where children and adults devote less-concentrated attention to two or more tasks that are attempted simultaneously without one's full attention committed to any single one of those endeavors" (Wesson, 2011). One of the outcomes of CPA is the loss in performance that can even cause 'performance-paralysis'. 'Performance paralysis' is when either of the tasks can be done instinctively, without "actively and consciously thinking about each step in the process of execution", before the other task can be effectively carried out (Wesson, 2011).

This is scientific proof that the brain finds it very difficult to multi-task (which is really just fast switching your attention between two or more tasks). "The brain doesn't multitask," said Daniel Levitin, author and professor of psychology, behavioral neuroscience and music at McGill University on KQED's *Forum* program. "It engages in sequential tasking or unitasking, where we are shifting rapidly from one thing to another without realizing it" (GDC Team, 2014). The brain is actually fracturing time into ever-smaller parts and focusing on each thing individually. This is known to be detrimental to productivity and creativity.

Increased stress

Personally, my workload has greatly increased in the last year. During that time I have noted that when my stress levels go up, my ability to concentrate and hold information or thoughts in my head for any length of time declines. There are a large number of published articles about this connection between reduced attention span and stress. One of the most fascinating quotes has come from the Center of Studies on Human Stress:

When you are stressed . . . *this stress takes a lot of resources from your brain and interferes with your capacity to encode any new information* (Hollinsworth, 2014).

Our busy lifestyles and intrusive use of technology have contributed to this quite dangerous biological phenomenon.



information overload by Marina Noordegraaf

Information overload

A study revealed that the average person is bombarded with around 100,500 words a day. That is 23 words per second! Roger Bohn, co-author of the study *How Much Information*, said: "Our attention is being chopped into shorter intervals and that is probably not good for thinking deeper thoughts" (news.com.au, 2009). This has only increased over time with the amount of electronic devices that are throwing information our way and often simultaneously. Our ability to think deeply or creatively has been compromised.

How do we help our students?

It is important that we teach students how to be present and focused. We can do so in the following ways:

- Teach time management skills with an emphasis on how we should prioritise our schedules and work loads to pay attention to one task at a time.
- Analyse information critically this should be a Teacher-Librarian's forte. We need to be showing students how to quickly differentiate between information and misinformation.
- Externalise memory. When we write down to-do lists we are relieving our brains of the burden of remembering what we should do and allowing it to focus on the task at hand.
- Break-up lessons to allow students to focus and process information that has been already given.
- Incorporate games/activities that involve thinking and creativity such as puzzles, word games, strategic games, reading or writing, arts and crafts, pretend play or musical instruments. If you haven't explored makerspaces activities, this could be a good reason to start including these into your library spaces.
- Encourage and model time out where we get to rest our minds. Dr. Leviatin states that, 'You need to give your brain time to consolidate all the information that's come in, to toss it and turn it.' Daydream. 'Children shouldn't be overly scheduled. They should have blocks of time to promote spontaneity and creativity' (GDC Team, 2014). Without that time, students don't have the mental space to let new ideas and ways of doing things arise. Daydreaming and playing are crucial in developing the kind of creativity many say should be a focal point of a modern education system.

The above point leads me to the importance of incorporating mindfulness in our education system. Going back to my introduction where the Geography teacher was asking about what to do with her students. I gave her some short mindfulness techniques to use at the beginning of her class to encourage her students to be fully present. This is a work in progress but she was grateful that she had been offered a practical strategy for her problem. Below are some daily mindfulness exercises that you can try now in your classes:

- Journaling at the beginning or end of class this requires students to reflect on the topic being studied and their thoughts about it.
- Mindfulness Relaxation Exercise
- Five minutes to a calmer classroom
- Sample Mindfulness Lesson Plan
- Mind Space Tips for Dealing with Exam Stress



Mindfulness Activities by Pisanuchai , 26 October 2010

References

Baggs, J. (2013) 'Electronic Devices are Dumbing Down a New Generation of Teens'. AL.com. Accessed 9 April 2015 at: http://www.al.com/opinion/index.ssf/2013/09/electronic_devices_are_dumbing.html

Culverhouse, S. (2009) 'Attention Span can Lead to Success or Failure in School', Clarksville, TN Online. Accessed at: http://www.clarksvilleonline.com/2009/09/21/attention-span-can-lead-to-success-or-failure-inschool/ %5BAccessed 9 Apr. 2015%5D.

Cybersmart.gov.au (2015) #Game On @ School. Accessed 9 April 2015 at: http://www.cybersmart.gov.au/Kids/Watch Videos/at-school.aspx

GDC Team. (2014) 'Why Daydreaming is Critical to Effective Learning'. Global Digital Citizen Foundation. Accessed 9 April 2015 at: https://globaldigitalcitizen.org/why-daydreaming-is-critical-to-effective-learning

Georgiou, N. (2014) 'A World of Online Distraction'. *SCIS Connections*. Accessed 9 April 2015 at: http://www2.curriculum.edu.au/scis/connections/issue_91/articles/a_world_of_online_distraction.html

Hollinsworth, D. (2014) 'The Goldfish Effect: How Short Attention Spans are Killing your Productivity' Targit.com. Accessed 9 April 2015 at: http://www.targit.com/en/blog/2014/04/data-visualization-goldfish-effect

McCall, K. (2014) '8-Second Attention Span?' LinkedIn Pulse. Accessed 9 April 2015 at: https://www.linkedin.com/pulse/20140418171300-15742110-writing-for-goldfish

news.com.au, (2009) 'Brains Overloaded Daily with more Info than a Laptop can Handle'. Accessed 9 April 2015 at: http://www.news.com.au/technology/brains-overloaded-daily-with-more-info-than-a-laptop-can-handle/story-e6frfro0-1225810448664

Statisticbrain.com, (2015) 'Attention Span Statistics'. Accessed 9 April 2015 at: http://www.statisticbrain.com/attention-span-statistics/

Weinreich, H., Obendorf, H., Herder, E. and Meyer, M. (2008) *Not Quite the Average: An Empirical Study of Web Use.* 1st ed. [ebook] Hamburg: Department of Informatics, University of Hamburg, Germany. Accessed 9 April 2015 at: https://vsis-www.informatik.uni-hamburg.de/getDoc.php/publications/315/Weinreich-2008_-_Empirical_Study_of_Web_Use.pdf

Wesson, K. (2011) *ScienceMaster*: 'Attention Span Revisited'. Sciencemaster77.blogspot.com.au. Accessed 9 April 2015 at: http://sciencemaster77.blogspot.com.au/2011/01/attention-spans-revisited.html

www.huckleberrybranding.com, (2015) *The Attention Span of the Internet User*. [image] Accessed 9 April 2015 at: http://emarketingblog.nl/wp-content/uploads/2014/11/Image-4-Blog-2.jpg

YouTube (2015) 'Australians' Digital Lives—Research ACMA Report'. Accessed 9 April 2015 at: https://www.youtube.com/watch?v=JJAFbKmHBpA

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