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Multi-tasking is associated with reduced learning.

Experimental study:

Students required to send 3 text messages to the professor during class scored lower on a quiz on the lecture material than students who turned off their phones.

Effect was observed for both strong and weak students.

Ellis, Daniels & Jaurequi (2010). Research in Higher Education.
Multi-tasking means longer time to complete tasks

Experimental study:

IM before reading text

IM while reading text*

No IM; read text

* These students took significantly longer to read the passage, even with IM time removed

Bowman et al. (2010). Computers and Education
Laptops in class are associated with reduced learning.

Students reported an average of 17 minutes in a 75 minute class allocated to email, games, IM, web surfing, and “other”.

More laptop use in class associated with lower class performance.

Students reported the greatest barrier to their learning was other students’ laptop use.

Multi-tasking is associated with different patterns of brain activity

Adcock et al. (2000). PNAS.
Multi-tasking is associated with different patterns of brain activity

Participants reported dual task was harder

They made more errors

Scans suggested dual tasks led to “an increased demand for maintenance of task-specific information in the presence of distraction”

Adcock et al. (2000). PNAS.
Students who believe they are good at multi-tasking are not

Stanford University on multitasking

https://www.youtube.com/watch?v=Na1fYwCZAu4

Comparison of high multi-taskers versus high-focus people

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high multi-taskers performed much worse – but were more confident!

Attention Span

- The average attention span at present is just 5 minutes long.
- Ten years ago, it was 12 minutes.

**THAT’S A PRETTY DRASTIC CHANGE**

- Younger people have shorter attention spans than the elderly.

**THIS INDICATES THAT SOCIAL MEDIA AND TECHNOLOGY HAVE AN EFFECT, AS OPPOSED TO AGE.**

**EFFECTS OF A SHORTENED ATTENTION SPAN**

- 25% forget the names or details of close friends and even relatives.
- 7% of people forget their own birthdays from time to time.
- Forgotten pots and pans on the stove.
- In the UK last year, **£1.6 billion of damage** was caused by lack of concentration.

Moxon (2008).
“Deep work” is the act of focusing without distraction on a cognitively demanding task.

To produce at your peak level you need to work for extended periods with full concentration on a single task free from distraction.
Deep Habits: The Importance of Planning Every Minute of Your Work Day

December 21st, 2013 • 112 comments

![Diagram of time blocking](image)
The '20 percent less rule.'

Whatever deadline you set for yourself, cut it by 20 percent. “Now you have to scramble with as much intensity to get this thing done,” says Newport. Adding a sense of urgency to the task is like doing interval training for your mind. It forces you to work just a little bit harder.
use locations that are not your normal office
Practice being bored (w/o jumping to social media)

Engaging in deep work isn’t as simple as setting aside a chunk of time to work on something. “You have to treat your attention with a lot of respect, like a professional athlete might treat their body,” says Newport. This also means training your brain to focus.
Rituals to signal it's Deep Work time
Be good role models for our students