

You might just be addicted: Smartphone use physically affects your brain, study says

Coral Murphy USA TODAY, Feb 20, 2020

In a world that relies on people having smartphones – from work emails to cashless businesses – developing an addiction to your device is becoming increasingly difficult. While some think it's only a mental issue, a new study suggests that this constant usage physically affects your brain the same way drug addiction does.

Regions in the brain known as grey matter showed changes in size and shape for people with social media addiction, according to a study published in the journal *Addictive Behaviors*.

Grey matter controls a person's emotions, speech, sight, hearing, memory and self-control. Other studies have reported similar brain alterations due to drug usage.

"Given their widespread use and increasing popularity, the present study questions the harmlessness of smartphones, at least in individuals that may be at increased risk for developing smartphone-related addictive behaviors," reads the study by researchers from Heidelberg University in Germany.

In the U.S., over 24% of kids from 8 to 12 years old have their own smartphone and 67% of their teenage counterparts do, with younger teenagers using an average of about six hours' worth of entertainment media daily.

The average American spends around four hours a day on their smartphone, according to a RescueTime survey.

Companies like Apple and Android provide features that help users manage their screen time, while other apps like Moment and Freedom help smartphone junkies block access to certain apps and websites.

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A California high school found students' cellphones too distracting, so they're locking the devices up

Safia Samee Ali, NBCNews.com, August 20, 2019

Some experts say taking away the students' devices creates its own kind of distraction — and anxiety — for students.

It wasn't enough to just tell students at San Mateo High School to put their phones away during class, now, officials at the California school have told them to lock them away.

And while their familiar companions may still be near, the high-schoolers are now required to keep their devices in a magnetically sealed pouch during school hours.

Mounting frustration over student attentiveness led administrators at the school, which is about 20 miles south of San Francisco, to institute the new policy this school year, which kicked off earlier this month.

"We could walk into a variety of classrooms, and kids would be on their cellphones anywhere from 5 seconds, checking a text, to 30 to 45 minutes at a time," Adam Gelb, assistant principal of San Mateo High School, told NBC Bay Area. "You're here to learn. You are here to work with your teachers and students, and we started getting away from that because of these devices and how addictive they can be.

"Each school day, nearly 1,700 students place their devices in a Yondr pouch that closes with a proprietary lock. School administrators unlock them at the end of the day.

While administrators and teachers say they have already noticed a positive effect on students, the policy has elicited mixed reactions from researchers who argue its long-term effectiveness.

Devices remain in the student's possession, but they aren't able to access them, the school said. The program was funded with a \$20,000 grant. The pouches have been assigned to students at no cost, but losing one will cost the high-schoolers a \$25 replacement fee.

Some technology experts feel the new policy is a step in the right direction and will curb distraction in the classroom.

"Taking cellphones out of the classroom is a no-brainer," said Calvin Newport, a professor of computer science at Georgetown University.

Students tend to perform worse when they have access to network connectivity in the classroom, he said.

"The ability to be free of distraction and concentrate on things is increasingly valuable, so it's a good general function of our schools to be a place where our students get trained to keeping their concentration on one thing at a time," he added.

Many students at the school have embraced the idea after initially hesitating.

"Last year, a lot of people spent lunches looking at the phone, not talking with each other, but this year, there is nothing else to do but talk," said Michael Picchi, a San Mateo High School student.

"It helped me a lot. ... I'm like a typical teenager, you know? Like I'm always on my phone," said Polina Tu'ipuloto, another student. "Before I would usually just like curl over in the side of my desk and like check my phone and text everyone. But now there's no other thing for us to look at or do except for talk to our teacher or pay attention."

There is a real lag to switching your brain from a calculus teacher to SnapChat, and that effects memory concentration and critical thinking, Newport said. When you shift your focus back and forth between a teacher and a cellphone, your brain performance pays a "switching cost," Newport added.

A study from Rutgers University found that students who had cellphones or laptops during lessons scored 5 percent, or half a letter grade, lower on exams than students who weren't using electronics.

A no-cellphone policy improves the educational experience, said Arnold Glass, a professor of psychology at Rutgers University, who lead the study. "Cellphones have negative consequences on learning, and if you're there to learn, it defeats the purpose of showing up if you're on a phone."

While many researchers have focused on the benefits of cutting out devices from the classroom, others worry about taking away something young people depend on.

Larry Rosen, a research psychologist at California State University, said young people constantly check their phones to alleviate anxiety. They are anxious about staying on top of things, and that anxiety will build up if they are forced to ditch the devices cold turkey, he added. Taking away phones doesn't work for everyone, he argues.

Instead, he believes "technology breaks" are a much happier medium.

Giving students a few minutes between lessons to check their phones helps dispel a lot of the anxiety, he said. If a student is focused on what he's missing out on, then he's not going to be focusing on the teacher, Rosen said.

"I would caution this school that one of the ramifications of this policy is that you're activating anxiety in your students, which may backfire," he said.

Some students argue that the policy should be more balanced.

"I think lunchtime it should be allowed," said Kaveela Blackwell, a student told NBC Bay Area. "It's your free time to do what you want."

Removing cellphones won't curb students' distractions, instead, people will just be distracted by other things, said Jesse Stommel, executive director of the division of teaching and learning technology at the University of Mary Washington.

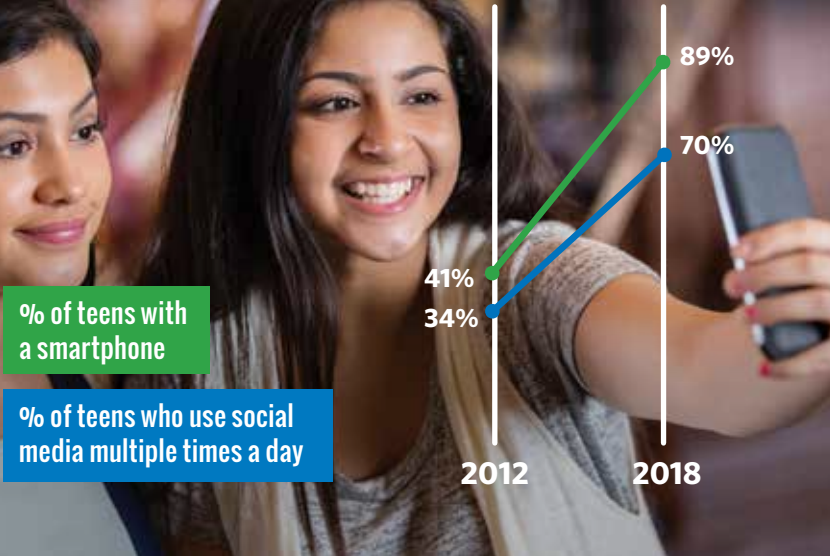
Cellphones are deeply entrenched in our lives, which can't be ignored, he said. Students will respond better by implementing cellphones in a more effective way in the classroom.

"It's better to help students figure out how to manage distractions instead of trying to eliminate it. It's better to harness it and help make it productive."

Social Media, Social Life 2018

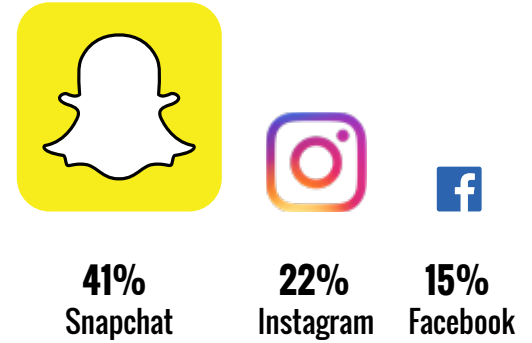
Among 13- to 17-year-olds in the United States

Social media use among teens has increased dramatically.



Teens overwhelmingly choose Snapchat as their main social media site.

Percent of teens who say they use each social media site the most:



They're being distracted from other important things and their friends.



57%

of all teens agree that using social media often distracts them when they should be doing homework.



54%

of teen social media users agree that it often distracts them when they should be paying attention to the people they're with, **compared to 44% in 2012.**



29%

of teen smartphone owners say they've been woken up by their phones during the night by a call, text, or notification.

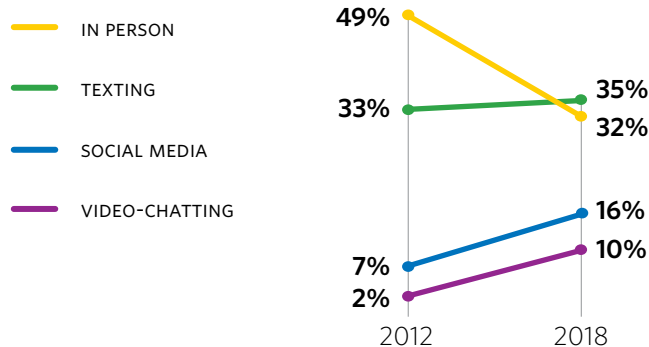


42%

of teens agree that social media has taken away from time they could spend with friends in person, **compared to 34% in 2012.**

Teens don't value face-to-face communication with friends as much as they used to.

Teens favorite way of communicating, 2012 vs. 2018



What happens online stays online.

When asked to pick which comes closer to the truth, teens say:

54%

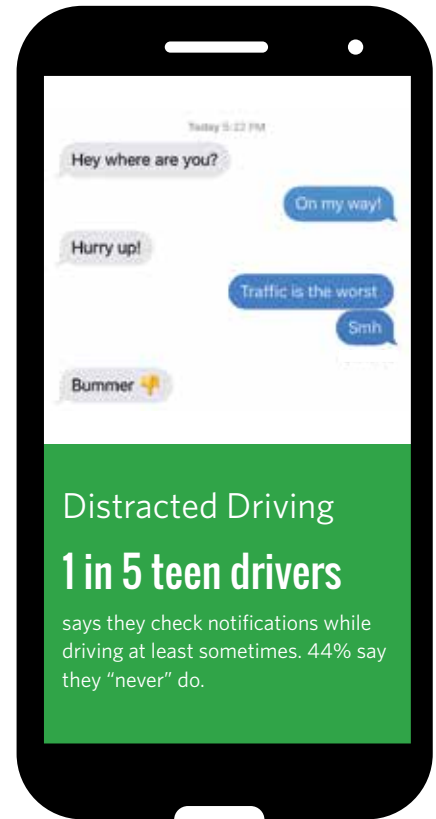
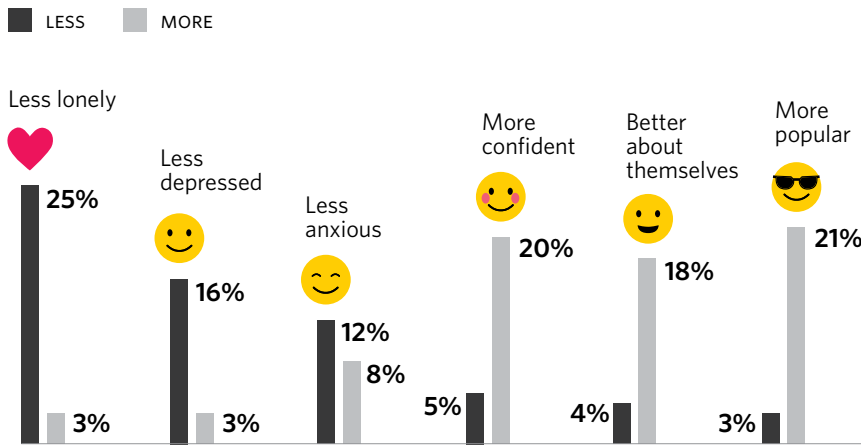
If parents knew what actually happens on social media, they'd be a lot more worried about it.

46%

Parents worry too much about teens' use of social media.

Teens are much more likely to say social media has a positive rather than a negative effect on how they feel.

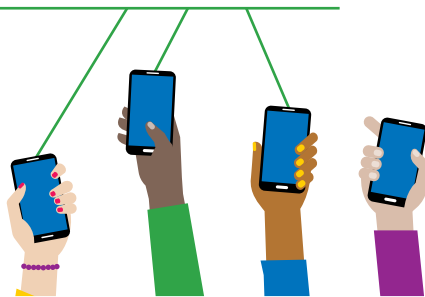
Social media users who say using social media makes them feel "more" or "less":



Teens think they're being manipulated.

72%

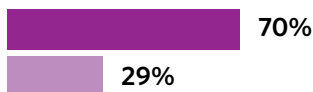
Of teens believe that tech companies manipulate users to spend more time on their devices.



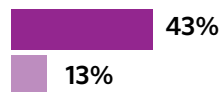
Teens with low social-emotional well-being experience more of the negative effects of social media than kids with high social-emotional well-being.

Percent of social media users who say they:

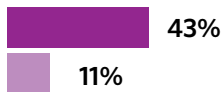
Sometimes feel left out or excluded when using social media



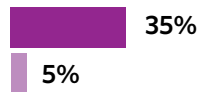
Have deleted social media posts because they got too few "likes"



Feel bad about themselves if no one comments on or likes their posts



Have ever been cyberbullied

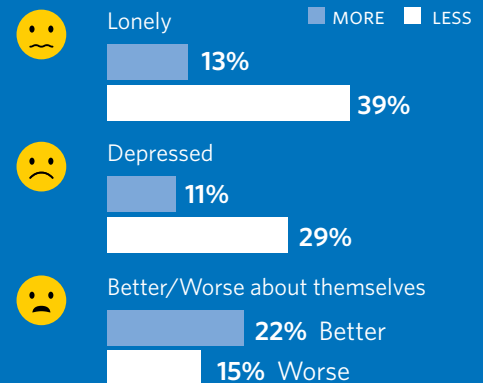


LOW SOCIAL-EMOTIONAL WELL-BEING
HIGH SOCIAL-EMOTIONAL WELL-BEING

See Methodology section for definitions of the high, medium, and low SEWB groups.

Looking closer at teens with low social-emotional well-being

Percent who say using social media makes them feel:



METHODOLOGY: This report is based on a nationally representative survey of 1,141 13- to 17-year-olds in the United States. The survey was administered online by the research group GfK using their KnowledgePanel® from March 22, 2018, through April 10, 2018. Participants were recruited using address-based sampling methods. The margin of error for the full sample at a 95 percent confidence level is +/-3.4 percent. The overall design effect for the survey is 1.4048.

Source #2:

Is Google Making Us Stupid?

YES

Who doesn't love Google? In the blink of an eye, the search engine delivers useful information about pretty much any subject imaginable. I use it all the time, and I'm guessing you do too.

But I worry about what Google is doing to our brains. What really makes us intelligent isn't our ability to find lots of information quickly. It's our ability to think deeply about that information. And deep thinking, brain scientists have discovered, happens only when our minds are calm and attentive. The greater our concentration, the richer our thoughts.

If we're distracted, we understand less, remember less, and learn less.

That's the problem with Google—and with the Internet in general. When we use our computers and our cellphones all the time, we're always distracted.

The Net bombards us with messages and other bits of data, and every one of those interruptions breaks our train of thought. We end up scatterbrained. The fact is, you'll never think deeply if you're always Googling, texting, and surfing.

Google doesn't want us to slow down. The faster we zip across the Web, clicking links and skimming words and pictures, the more ads Google is able to show us and the more money it makes. So even as Google is giving us all that useful information, it's also encouraging us to think superficially. It's making us shallow.

If you're really interested in developing your mind, you should turn off your computer and your cellphone—and start thinking. Really thinking. You can Google all the facts you want, but you'll never Google your way to brilliance.

Source: Nicholas Carr, Author // The Shallows: What the Internet Is Doing to Our Brains

NO

Any new information technology has both advocates and critics. More than 2,000 years ago, the classical Greek philosopher Socrates complained that the new technology of writing "will create

forgetfulness in the learners' souls because they will not use their memories."

Today, Google is the new technology. The Internet contains the world's best writing, images, and ideas; Google lets us find the relevant pieces instantly.

Suppose I'm interested in the guidance computers on Apollo spacecraft in the 1960s. My local library has no books on that specific subject—just 18 books about the Apollo missions in general. I could hunt through those or turn to Google, which returns 45,000 pages, including a definitive encyclopedia article and instructions for building a unit.

Just as a car allows us to move faster and a telescope lets us see farther, access to the Internet's information lets us think better and faster. By considering a wide range of information, we can arrive at more creative and informed solutions. Internet users are more likely to be exposed to a diversity of ideas. In politics, for example, they are likely to see ideas from left and right, and see how news is reported in other countries.

There's no doubt the Internet can create distractions. But 81 percent of experts polled by the Pew Internet Research Project say the opportunities outweigh the distractions.

Socrates was wrong to fear the coming of the written word: Writing has improved our law, science, arts, culture, and our memory. When the history of our current age is written, it will say that Google has made us smarter—both individually and collectively—because we have ready and free access to information.

Source: Peter Norvig, Director of Research, Google Inc.

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