

Is Google Making Us Stupid?

Our reliance on search engines and the Internet is changing the way we process information. The question is whether that's a good or a bad thing.

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. ●

—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. ●

—PETER NORVIG, DIRECTOR OF RESEARCH

Google Inc.

