Growing Up Digital

Wired to their cellphones and computers, students are having more trouble focusing on other things. Will a generation of teens end up with brains that work differently?

BY MATT RICHTEL IN REDWOOD CITY, CALIFORNIA

The day before the start of Vishaal Singh’s senior year in high school, he faces stark choice on his bedroom desk: book or computer?

Vishaal, a bright 17-year-old Californian who spends most of his time on Facebook, YouTube, and making digital videos, has read just 43 pages of his summer reading assignment, Kurt Vonnegut’s Cat’s Cradle. Instead of picking up the book, he clicks to YouTube.

On YouTube, “you can get a whole story in six minutes,” he explains. “A book takes so long, I prefer the immediate gratification.”

Students have always faced distractions. But computers and cellphones, and the constant stream of stimuli they offer, are a new challenge to focusing and learning.

Researchers say the lure of these technologies is particularly powerful for young people. But because developing brains can get used to constantly switching tasks a lot more easily than adult brains, the risk is that today’s teenagers will be less able to stay focused on anything, not just schoolwork.

“Their brains are rewarded not for staying on task but for jumping to the next thing,” says Michael Rich, a professor at Harvard Medical School and head of the Center on Media and Child Health in Boston. “The worry is we’re raising a generation of kids in front of screens whose brains are going to be wired differently.”

But even as some educators express unease about students’ digital diets, they are increasingly using technology in the classroom, seeing it as a way to connect with students and give them the skills they need. Across the country, schools are equipping themselves with computers, Internet, and mobile devices.

It is a tension on vivid display at Vishaal’s school, Woodside High School in Redwood City, California. Here, as elsewhere, it’s not uncommon for students to send hundreds of text messages a day or spend hours playing video games, and virtually everyone is on Facebook.

27,000 Texts a Month

Allison Miller, 14, sends and receives 27,000 texts a month. She texts between classes, the moment soccer practice ends,
while being driven to and from school, and often while studying. But it comes at a cost: She blames multitasking for the three B’s on her recent progress report.

“I’ll be reading a book for homework and I’ll get a text message and pause my reading and put down the book, pick up the phone to reply to the text message, and then 20 minutes later realize, ‘Oh, I forgot to do my homework.’”

Some shyer students do not socialize through technology—they recede into it. Ramon Ochoa-Lopez, 14, plays six hours of video games on weekdays and more on weekends, leaving homework to be done in the bathroom before school.

Students say that their parents, worried about the distractions, try to police their computer time. But it’s trickier with cellphones, since a lot of parents want to be able to call their children at any time, so simply taking the phone away isn’t an option.

Sam Crocker, Vishal’s closest friend, who has straight A’s but lower SAT scores than he would like, blames the Internet’s distractions for his inability to finish either of his two summer-reading books.

“Facebook is amazing because it feels like you’re doing something and you’re not doing anything,” Sam says. “It’s the absence of doing something, but you feel gratified anyway.”

He concludes: “My attention span is getting worse.”

No Downtime

That’s what has doctors worried. “Downtime is to the brain what sleep is to the body,” says Dr. Rich of Harvard Medical School. “But kids are in a constant mode of stimulation.”

Rich isn’t suggesting young people toss out their phones and computers, but that they take a more balanced approach to what he says are powerful tools necessary to compete and succeed in modern life.

Vishal has mixed feelings about technology. “If it weren’t for the Internet, I’d focus more on school and be doing better academically,” he says. But thanks to the Internet, he says, he’s discovered and pursued his passion: filmmaking.

Vishal often spends hours working on music videos or film projects with sophisticated film editing software that he taught himself how to use—and then he’s focused in a way he rarely is when doing homework. He hopes colleges will be so impressed by his portfolio that they’ll overlook his school performance.

Some teachers are alarmed by what they see. Marcia Blondel, a veteran English teacher, has resorted to having students read aloud in class because many lack the attention span to read assignments on their own.

“You can’t become a good writer by watching YouTube, texting, and e-mailing a bunch of abbreviations,” says Blondel.

By late October, Vishal’s grades began to slip. Vishal says he’s investing himself more in his filmmaking. But he is also using Facebook late at night and surfing for videos on YouTube. Evidence of the shift comes in a string of Facebook updates.

Saturday, 11:55 p.m.: Editing, editing, editing.
Sunday, 3:55 p.m.: 8+ hours of shooting, 8+ hours of editing. All for just a three-minute scene. Mind = Dead.
Sunday, 11:00 p.m.: Fun day, finally got to spend a day relaxing... now about that homework...

GROWING UP DIGITAL

CRITICAL THINKING
According to a 2009 study, children ages 8 to 18 spend an average of 7.5 hours per day using electronic media (cellphones, computers, video games, TVs, etc.). In 2004, the average was about 6.5 hours.

→ Why do you think young people spend so much of their time on these activities?

→ How much time do you spend per day texting? On Facebook? Web surfing? Do you think these activities interfere with other parts of your life? Why or why not?

WRITING PROMPT
Restrict your media exposure for one day by avoiding your cellphone (except for emergencies), computer, and TV. Then write a reflective essay about what it was like to live media-free. What changes did you have to make, and how did they affect you? What were the costs and benefits of living this way?

DISCUSSION QUESTIONS
At what point does cellphone and computer use become a problem? What might the warning signs be?

How might using cellphones and computers affect your ability to focus?

What kinds of “instant gratification” do electronic media provide? Is this good or bad? Why?

What important skills can people learn from using computers and the Internet?

What conversations are better had through texting? Which are better done in person?

What limits does your school place on cellphone usage?

FAST FACT
Since 2005, the proportion of 8- to 18-year-olds who own their own cellphone has grown from 39 percent to 66 percent.

WEB WATCH
http://pewresearch.org/pubs/1572/teens-cell-phones-text-messages

Results of a recent Pew Research Center study on teen cellphone usage and texting, and links to related research

THE PRICE OF SAFETY

CRITICAL THINKING
Read aloud the Fourth and Fifth Amendments to the Constitution.

→ What rights do these Amendments safeguard?

→ Why has it proved difficult to strike a balance between protecting Americans from terrorist threats and preserving these rights?

WRITING PROMPT
Write a persuasive essay: Does the use of airport full-body scanners violate the Fourth Amendment?

DEBATE
Take a side: Protecting the nation from another terrorist attack is more critical today than safeguarding civil rights.

DISCUSSION QUESTIONS
What terrorist plots involving airplanes have been thwarted in the past year and a half? Why did they force the T.S.A. to take new measures?

What do you think about the use of body scanners and extensive pat-downs at airports? Are these measures necessary?

What intelligence-gathering program did President Bush authorize in 2002? Why do you think he thought the program was justified? What have the courts said?

Where is Guantánamo Bay prison, and who is detained there? Why do some believe that the detainees are being denied Fifth Amendment rights? Why do others disagree?

Do you feel more safe or less safe from terrorism today than you did a few years ago? Explain.

FAST FACT
Prior to the creation of the T.S.A. in 2001, the Federal Aviation Administration oversaw U.S. airport security.

WEB WATCH
www.tsa.gov

The Transportation Security Administration site provides an overview of airport-security measures, as well as tips for travelers and a discussion of the agency’s civil rights guidelines.