Reading 346

Task 1. Read the text about the effects of digital media on people's minds. For questions 1—7 choose the answer (A, B, C or D) which you think fits best according to the text.

Is the Internet Making us Stupid?

In an article in Science, Patricia Greenfield, a development psychologist who runs UCLA's Children's Digital Media Centre, reviewed dozens of studies on how different media technologies influence our cognitive abilities. Some of the studies indicated that certain computer tasks, like playing video games, increase the speed at which people can shift their focus among icons and other images on screens. Other studies, however, found that such rapid shifts in focus, even if performed adeptly, result in less rigorous and 'more automatic' thinking.

In one experiment at an American university, half a class of students was allowed to use internet-connected laptops during a lecture, while the other half had to keep their computers shut. Those who browsed the web performed much worse on a subsequent test of how well they retained the lecture's content. Earlier experiments revealed that as the number of links in an online document goes up, reading comprehension falls, and as more types of information are placed on a screen, we remember less of what we see.

Greenfield concluded that 'every medium develops some cognitive skills at the expense of others'. Our growing use of screen-based media, she said, has strengthened visual-spatial intelligence, which can strengthen the ability to do jobs that involve keeping track of lots of rapidly changing signals, like piloting a plane or monitoring a patient during surgery. However, that has been accompanied by 'new weakness in higher-order cognitive process', including 'abstract vocabulary, mindfulness, reflection, inductive problem-solving, critical thinking and imagination'. We're becoming, in a word, shallower.

Studies of our behavior online support this conclusion. German researchers found that web browsers usually spend less than ten seconds looking at a page. Even people doing academic research online tend to 'bounce' rapidly between documents, rarely reading more than a page or two, according to a University College London study. Such mental juggling takes a big toll. In a recent experiment at Stanford University, researchers gave various cognitive tests to 49 people who do a lot of media multitasking and 52 people who multitask much less frequently. The heavy multitaskers performed poorly on all tests. They were more easily distracted, had less control over their attention, and were much less able to distinguish important information from trivia. The researchers were surprised by the results. They expected the intensive multitaskers to have gained some mental advantages. That wasn't the case, though. In fact, the multitaskers weren't even good at multitasking. 'Everything distracts them', said Clifford Nass, one of the researchers.

It would be one thing if the ill effects went away as soon as we turned off our computers and mobiles, but they don't. The cellular structure of the human brain, scientist have discovered, adapts readily to the tools we use to find, store and share information. By changing our habits of mind, each new technology strengthens certain neutral pathways and weakens others. The alterations shape the way we think even

when we're not using the technology. The pioneering neuroscientist Michael Merzenich believes our brains are being 'massively remodelled' by our ever-intensifying use of the web and related media. Not long ago he said that he was profoundly worried about the cognitive consequences of the constant distractions and interruptions the internet bombards us with. The long-term effect on the quality of our intellectual lives, he said, could be 'deadly'.

Not all distractions are bad. As most know, if we concentrate too intensively on a tough problem, we can get stuck in a mental rut. However, if we let the problem sit unattended for a time, we often return to it with a fresh perspective and a burst of creativity. Research by Dutch psychologist Ap Dijksterhuis indicates that such breaks in our attention give our unconscious mind time to grapple with a problem, bringing to bear information and cognitive process unavailable to conscious deliberation. We usually make better decisions, his experiments reveal, if we shift our attention away from a mental challenge for a time.

But Dijksterhuis's work also shows that our unconscious thought processes don't engage with a problem until we've clearly and consciously defined what the problem is. If we don't have a particular goal in mind, he writes, 'unconscious thought does not occur'. The constant distractedness that the Net encourages is very different from the kind of temporary, purposeful diversion of our mind that reflects our thinking. The cacophony of stimuli short-circuits both conscious and unconscious thought, preventing our minds from thinking either deeply or creatively. Our brains turn into simple signal-processing units, shepherding information into consciousness and then back again. What we seem to be sacrificing in our surfing and searching is our capacity to engage in the quieter, attentive modes of thought that underpin contemplation, reflection and introspection.

1 What do we learn about Patricia Greenfield's research in the first paragraph?

A It focused on problems resulting from the use of media technologies.

B It did not produce consistent patterns in connection with computer use.

C It involved collating the results of work done by other people.

D It highlighted differences between people when using their computers.

2 Two of the experiments mentioned in the second paragraph concerned

A the amount of attention people pay to what they see on computers.

B the connection between computer use and memory.

C the use and non-use of computers for studying .

D changes that happen if people's computer use increases.

3 One of Greenfield's conclusions was that

A certain claims about the advantages of computer use are false.

B computer use has reduced a large number of mental abilities.

C people do not care about the effects of computer use on their minds.

D too much emphasis has been placed on the benefits of computer use.

4 One of the pieces of research mentioned in the fourth paragraph indicated that

A some people are better at multitasking than others.

B 'mental juggling' increases the mental abilities of only a few people.

C beliefs about the effectiveness of multitasking are false .

D people read online material less carefully than other material.

5 What is the writer's purpose in the fifth paragraph?

A to advise on how to avoid the bad effects of new media technology.

B to present opposing views on the consequences of use of new media technology.

C to warn about the damage done by use of new media technology.

D to summarize the findings of the previously- mentioned research.

6 The writer mentions Ap Dijksterhuis's research in order to make the point that

A not all research supports beliefs about the dangers of computer use.

B the mind functions in ways that computers cannot.

C problem-solving can involve very complex mental processes.

D uninterrupted concentration on something is not always a good thing.

7 The writer's main point in the final paragraph is that

A constant computer use makes people incapable of complex thought processes.

B the stimulation provided by computer use causes people to become confused.

C it is natural for some people to want to avoid thinking deeply about problems.

D both conscious and unconscious thought are affected by computer use.

Key

1. C
2. B
3. B
4. C
5. C
6. D
7. A