THE NEXT STEP IN BRAIN EVOLUTION

Emily Field is a native of a new planet. While the 20-year-old university student may appear to live in London, she actually spends much of her time in another galaxy – in the digital universe of websites, e-mails, text messages and mobile phone calls. The behaviour of Field and her generation, say experts, is being shaped by digital technology as never before. It may even be the next step in evolution, transforming our brains and the way we think.

"First thing every morning, I check my mobile for messages, have a cup of tea and then check e-mails," says Field. "I look at Facebook.com, a social networking website, to see if anything has been written on my wall. I'm connected to about 80 people on that. I'll then browse around the Internet, and if a new article on Yahoo catches my eye, I'll read it."

"The other day, I went to meet a friend in town, and realised I'd left my mobile phone at home. I felt so lost without it that I panicked and went back to collect it. I need to have it on me at all times. Technology is an essential part of my everyday life. I don't know where I'd be without it."

That's what makes Emily a "digital native", someone who has never known a world without instant communication. Her mother, Christine, on the other hand, is a "digital immigrant", still coming to terms with a culture ruled by the ring of a mobile and the zip of e-mails. Though 55-year-old Christine happily shops online and e-mails friends, at heart she's still in the old world. "Children today are permanently multitasking – downloading tracks, uploading photos, sending e-mails. It's non-stop," she says. "They find sitting down and reading, even watching TV, too slow and boring."

Are digital natives like Emily charting a new course for human intelligence? Many parents fear that children who spend hours glued to computer screens will end up as zombies with the attention span of an insect. Cyberspace is full of junk, they worry, and computer games are packed with mindless violence. But it needn't be like that, say some experts, and increasingly it isn't, as users exert more control and discrimination.

The sheer mass of information in the modern world is forcing digital natives to make choices that those who grew up with only books and television didn't have to make. "Younger people sift more and filter more," says Helen Petrie, a professor of human-computer interaction. "We have more information to deal with, and we pay less attention to particular bits of information, so it may appear that attention spans are shorter."

The question, then, is how do digital natives learn to discriminate, and what determines the things that interest them? Parents who hope that skills, values and limits are instilled at school may be fighting a losing battle. According to some educationalists, the reason why many children today don't pay attention in school is that they find teaching methods dull compared with their digital experiences. Instead, parameters are increasingly set by "wiki-thinking", peer groups exchanging ideas through digital networks. Just as the online encyclopaedia Wikipedia has been built from the collective knowledge of thousands of contributors, so digital natives draw on the experience and advice of online communities to shape their interests.

Where is this all leading? Only one thing seems clear: changes propelled by the digital world are just beginning. Indeed, apart from age, one of the differences between the natives and the immigrants is the intuitive acceptance of rapid digital change. Parents may use the Internet as much as their children, but what they aren't used to doing is upgrading. The younger generation are much more used to replacing old technology. Faster broadband speeds, smaller hardware – innovation is happening at such a pace that what was science fiction a few years ago will soon be fact.

Anecdotally, it seems, a lot of natives in this digital culture are adept at multitasking, doing several things simultaneously. But nobody knows exactly what the effect will be. "In a sense, we're running a grand-scale experiment. We're bringing up a whole generation in this totally new environment – without any firm evidence of how they will be affected.

Adapted from *The Times online*

Read the article and for questions 1-7 choose the answer (A, B, C or D) which you think fits best according to the article.

1. Why are the first three paragraphs of the article devoted to Emily Field?
   a) She is particularly interested in technology.
   b) She is a typical university student.
   c) She is a representative of people of her age.
   d) She is studying the effects of digital technology on students.

2. How would you sum up Emily's relationship with digital technology?
   a) She is completely dependent on it.
   b) She uses it mainly to support her academic studies.
   c) It provides her with a meaningful social life.
   d) It is useful but she could live without it.

3. The term "digital native" is used to refer to someone who…
   a) is inexperienced in using digital technology.
   b) has always inhabited a digital environment.
   c) is interested in using digital technology whenever possible.
   d) has yet to come to terms with digital technology.

4. How is Emily's mother different from her daughter?
   a) She is very uncomfortable using digital technology.
   b) She rarely uses digital technology.
   c) She is still adjusting to digital technology.
   d) She prefers reading or watching TV.

5. Some parents worry that continued exposure to digital technology will result in children…
   a) becoming uncontrollable and violent.
   b) having lower life expectancy.
   c) being unable to discriminate between right and wrong.
   d) losing the ability to pay attention for more than a few seconds.

6. Educationalists believe that digital natives may be developing their ideas and interests from…
   a) older family members.
   b) online encyclopaedias like Wikipedia.
   c) Internet contacts of their own age.
   d) schools and teachers.

7. What, according to the writer, is the only certainty with regard to the future of digital technology?
   a) Children will always be happier with digital technology than their parents.
   b) Everybody will need to become accustomed to multitasking.
   c) The world is at the start of the digital age.
   d) People will accept that digital technology is changing their world.

Find synonyms in the text for the following words and expressions.

1. Vital:	_____	6. Cope with:	_____
2. Be afraid of:	_____	7. Boring:	_____
3. Full of:	_____	8. Fellow:	_____
4. Pointless:	_____	9. Approval:	_____
5. Pure:	_____	10. Expert:	_____