Pearson Edexcel
International Advanced Level

English Language

International Advanced Level
Unit 3: Crafting Language (Writing)

Friday 19 January 2018 – Morning
Source Booklet

Paper Reference
WEN03/01

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Pearson

Topic: Mobile Telephones

The following texts all deal with the development of mobile telephone technology since the 1980s.

Text A: This is an extract taken from the knowyourmobile.com website.

The world's first mobile phone call was made in 1973, when Martin Cooper, a senior engineer at Motorola, called a rival telecommunications company and informed them he was speaking via a mobile phone. The phone Cooper used, if you could call it that, weighed a staggering 1.1kg. With this prototype device, you got 30 minutes of talk-time. It took around 10 hours to charge.

In 1983, Motorola released its first commercial mobile phone, known as the Motorola DynaTAC 8000X. The handset offered 30 minutes of talk-time, six hours standby, and could store 30 phone numbers. It also cost £2639 ($3995).

In the very early days of the mobile, handsets weren't designed with consumers in mind. You'd need a couple of thousand pounds to get hold of one, and even then performance wasn't great.

Even at the start of the 1990s this was still the case despite Nokia and NEC entering the fray. Nokia's first 'handheld' mobile phone, the Mobira Cityman 900, launched in 1989 and weighed just 800g – a huge improvement over 1982's 9.8kg Mobira Senator model.

1990 to 1995 represented an upward swerve in design and portability, with mobile devices gradually starting to appear in the hands of average consumers for the first time. By the late-1990s, mobile devices were fast becoming the norm.

Here is a selection of facts about mobile phones that show just how much the world has changed since the early days of mobile communication. The information dates from 2013.

- Over 250 million Nokia 1100 devices were sold, making it the bestselling electrical gadget in history.
- More people in the world have mobile phones than toilets.
- The technology behind smartphones relies on up to 250,000 separate patents.
- The average person unlocks his or her smartphone 110 times each day.

Text B: This text is part of an article from *The Guardian* newspaper that offers some guidance from psychologists to parents and teachers about mobile phone use by children. It was published in 2015.

Children and their mobiles: psychologists' views on a modern obsession

Parents should not constantly check their own phones
Gail Kinman, psychologist at the University of Bedfordshire.

Young people need boundaries. Relying on self-management for children may not work well – when the technology is there, they tend to use it. I don't think schools should necessarily employ an outright ban but one approach might be to bring children, teachers and parents together and draw up some guidance. If children are involved in setting rules they are more likely to adhere to them and enforce them in others. They would also need to decide on sanctions for those who break them.

Parents should be strong role models. Last week I read an interview in a magazine with a child about their relationship with their parents. The child said they'd like to be reincarnated as a mobile phone as the device gets more of their parents' attention than they do. If a parent is constantly checking their phone then it's understandable that a child won't think it is wrong. Setting some boundaries for technology use at home is also useful.

Banish phones at bedtime and during homework
Bradley Busch, registered psychologist and director of mental skills training company, InnerDrive.

Having your sleep disrupted by checking a smartphone has lots of psychological consequences – anxiety, fear of missing out, stress. The consistent overuse of phones also means that when they aren't available, it can lead to irritation, frustration and a feeling of being excluded.

We also know that checking your phone at night has a serious impact on sleep. The backlights can be very bright, which can trick your brain into thinking it is day and stop it releasing the hormone melatonin, which encourages sleep.

It is best not to have a phone in the bedroom at all. If it's absolutely necessary, turn the backlight right down and leave it alone for at least an hour or two before sleep.

Parents should make sure that young people don't sleep with their phones – get an alarm clock instead. It's important to talk to young people about sleep mistakes and make sure that they have a consistent night-time routine.

Schools and parents must set appropriate limits
Kelly Allen, educational and developmental psychologist.

A concerning finding emerged from a study that I read recently: the researchers investigated schools in the UK that had banned phones and found that this resulted in increased achievement for students who were classified as low achieving. This increase was equivalent to extending the school year by five days.

At the heart of finding balance lies a greater understanding of using phones in schools responsibly. It is about social etiquette, social skills and the considerations and regard for other people. For instance, it would be unwise to check your Facebook account if you were in a job interview. The same can be said for the classroom.

Parents and schools can install and teach behaviours around acceptable use, perhaps in a way that harnesses the advantages of technology. Although there will always be a certain amount of misuse, for schools and parents it's about setting appropriate limits and boundaries.

Text C

This is an article adapted from the magazine of the Smithsonian Museum. It reports what an expert in mobile communications thinks about how they will change in the future.

Cell phones will become a part of us...literally

Today, smartphones are a major part of our existence, a fact that isn't lost on Joshua Bell, an anthropologist and curator of globalization at the Natural History Museum. For the past two years, Bell and Joel Kuipers, an anthropologist at George Washington University, have researched mobile phone culture, along with the myriad facets—ecological impact, cultural variability— that underlie the now-global phenomena.

Bell was this weekend's first featured speaker at Smithsonian magazine's 2nd annual "The Future is Here" festival. A scholar of how cell phones* shape our modern lives, Bell took cues from both science fiction and his own research to offer up scenarios on how mobile technology will change...and in the process, change us.

Bell referenced the 2012 remake of the dystopian science fiction film Total Recall; it featured "interesting speculative technology"—implanted circuitry, which allowed a palm to become a keyboard for a personal device on which smart surfaces let users interface with others and a wider grid. Of course, the innovation had its drawbacks: the film's protagonist, played by Colin Farrell, eventually removes the device from his body because it allows others to trace his every move.

Such technology raises possibly troubling questions. "In such a future, one has to ask where one's self ends and begins," Bell notes. Such interfaces raise possibilities of "personal viruses" that could let individuals hack and steal specified information from each other.

Cell phone owners will learn how to rewire, turn off and repair their devices

For the past three years, Bell has followed the work of cell phone repair technicians in Washington, D.C. They fix broken smartphones and other mobile devices, and in doing so, reverse-engineer* devices that can be updated and modified but aren't often overhauled due to consumer culture and warranty deals.

These technicians, says Bell, are spurring new insights into how to manipulate devices built by larger corporations. Part of the "Maker Culture," or the "DIY" movement, they are also reminiscent of the global network of makers and hackers that flourishes in South Africa, Asia and Africa.

Someday, says Bell, we'll all be "hackers" in a sense, and able to make changes to our own technology instead of merely purchasing new models. "Does that mean I think in 100 years from now we'll all be engineers?" he asks. "I'm not so sure. But regardless of individuals' professions, some basic technical literacy will be essential."

Open-source technology will promote democracy, connect us globally and allow us to improve our phones

"Open-source* is the only way to have a future with our technology—not only to even out its unevenly-distributed nature, but so that we can work to create better devices," says Bell. By becoming a part of technology itself, we'll fear it less... and as a result, we will also "push the boundaries of what it means to be interconnected, alive and human."

Glossary:
**cell phone* – another term for mobile or smartphone
**reverse-engineer* – take apart an object to see how it works in order to duplicate or improve it
**Open-source* – software that is freely available, can be modified and redistributed

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Sources taken/adapted from:

Text A: http://www.knowyourmobile.com/nokia/nokia-3310/19848/history-mobile-phones-1973-2008-handsets-made-it-all-happen
Text B: http://www.theguardian.com/teacher-network/2015/sep/15/children-mobiles-psychologists-views
Text C: http://www.smithsonianmag.com/smithsonian-institution/the-future-is-here-whats-next-for-mobile-phones-180951479/?no-ist