

Ciclo I 2020

Reading and Technology



Programa de extensión

Departamento de Lenguas Extranjeras

Universidad Nacional de Colombia

Ciclo I 2020

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Unit 1 – Technology heroes

Reading 1

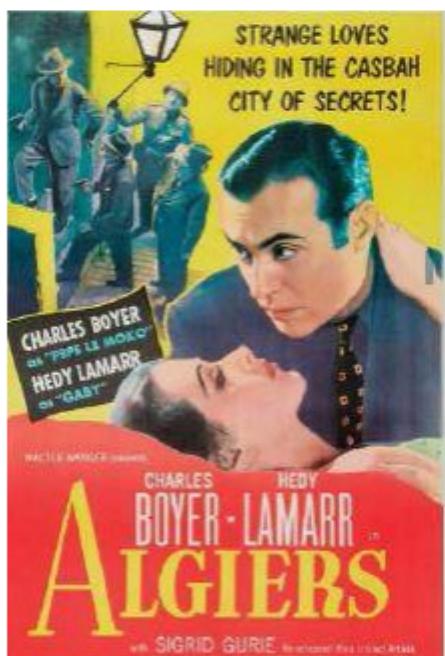
Skills:

- Main idea and details
- Make inferences
- Cause and effect

Getting started: Do you know people who have been vital in the development of technology?

HEDY LAMARR

The Hollywood film star behind the invention of Wi-fi and mobile phones.



The Austrian actress Hedy Lamarr was born in Vienna in 1914, as Hedwig Kiesler. She was a very clever girl, always interested in how things worked - she loved taking her music boxes to pieces and putting them together again.

However, she also loved acting, so she left school early without qualifications and started drama school.

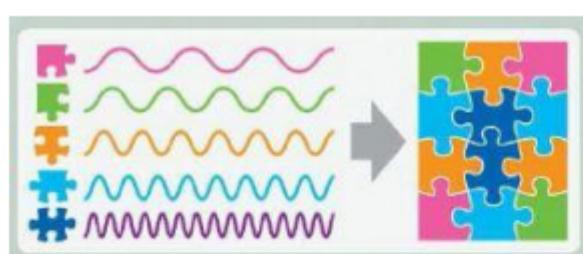
Hedy the film star

Hedwig first worked in Czechoslovakian films, and she quickly became a successful actress, often called 'the most beautiful woman in the world'. She married in 1933, but her husband didn't want her to work, and kept her locked in the house.

Finally, in 1937, she ran away to Paris. There she met an American film producer, and under her new name, Hedy Lamarr, she was soon a famous Hollywood actress.

Hedy's problem was that she soon got bored with film roles that were just about being beautiful. She didn't enjoy Hollywood parties, and liked to spend her free time inventing things.

Wartime work



During World War 11, she had an idea for making it difficult for the Germans to stop American radio signals. She was the first person to think of sending bits of information on different radio waves, and then putting them together when they arrived - like a jigsaw. Sadly, the US Navy didn't take her seriously.

* Taken from Headway Elementary. Oxford University Press.

Answer the following questions:

1. Why is Hedy Lamarr considered a prominent figure?
 - a. Because of her amazing Hollywood career.
 - b. Due to her participation in the war as a soldier.
 - c. She became the greatest female inventor of all times.
 - d. She had a key role in the development of modern technologies.
2. How is Hedy described in the first paragraph?
 - a. She hated acting.
 - b. She was curious.
 - c. She was a great student.
 - d. She was a good musician.
3. What made her escape to Paris?
 - a. The war
 - b. She wanted to go to school.
 - c. A husband who didn't let her be free.
 - d. Her desire to work in a technology company.
4. True or false: Hedy's ideas were implemented immediately.

What do you think?

Would you like to be recognized as a famous celebrity or as an important scientist?

Reading 2

Skills:

- Main idea and details

Getting started: Is it really necessary to mix technology and education?

ENOVA

a. In 2013, the Mexican learning and innovation network, Enova, was recognized with a Tech Award. The awards are given annually by The Tech Museum of Innovation in the USA. Enova delivers education to people in Mexico who don't have any other access to computers. The non-profit network was founded by Jorge Camil Starr along with two of his oldest friends. When they were growing up, they travelled around Mexico to go surfing and saw the potential that was being wasted in small towns with no infrastructure.

Jorge later explained how doing his degree in economics around the time that the Internet was developing led to the idea of taking quality education to these low-income towns via technology.

b. Enova's first task was to look at the failure of the existing systems. Computers had been used in community development for twenty years in Mexico, but the success rate of these projects was poor. Jorge realised that the systems had to be simplified. Enova took two important decisions. The first was that each educational centre would be run by only one person with full responsibility. The second was in the way they would deliver educational content - using video games.

Almost all of Enova's academic material has been designed as games. The children were motivated to learn because the games were fun to play. But to the surprise of Enova, they found that the children's mothers also wanted to play the games as well. Enova had discovered a way to bring education to adults too.

c. Jorge is keen to emphasize that Enova doesn't assume it's successful just because people go to their centres - the impact of the educational programmes is carefully measured. Enova follows the students who graduate and those who drop out. Students who abandon their studies are asked why, and the information is used to try and improve the programmes.



Enova also measures students' success on the external government exams, which gives an independent assessment of its impact. Although there are still about 80 million people in Mexico without computer access, there are now 70 Enova centres reaching over 350,000 people.

* Taken from Keynote upper-intermediate. Natural Geographic Learning.

Answer the following questions:

1. Read the article about Enova. Match the headings (1-3) with the paragraphs (A-C).

- 1** An innovative approach
- 2** Award-winning social enterprise
- 3** Making sure it works

2. Read the article again. Find this information:

- 1** the organization that gave the Tech Award
- 2** the country Enova works in
- 3** the founders of Enova
- 4** Jorge Camil Starr's area of study
- 5** the first thing Enova did
- 6** two things Enova decided to do
- 7** an unexpected consequence of teaching the children
- 8** three ways Enova measure its success rates

What do you think?

Should students have computers with them during their classes? Brainstorm ideas (pros/cons).

Reading 3

Skills:

- Organization

Getting started: What is the best device humans have invented?

ALAN TURING

The persecuted and eventually pardoned Alan Turing was the great mind that was able to **crack** the Enigma machine, a type of **enciphering** machine used by the German armed forces to send messages securely. During the Second World War, Turing worked for the



Government Code and Cypher School, Britain's codebreaking center that produced ultra-intelligence. Turing played a crucial role in cracking intercepted coded messages that enabled the Allies to defeat the Nazis in many crucial combats, including the Battle of the Atlantic. By doing so, he helped win the war.

In the latter part of the war, he worked for the Radio Security Service. There, he developed his knowledge of electronics with the assistance of engineer Donald Bayley. Together they designed and built a portable secure voice communications machine called Delilah. This device was intended for different applications, but it couldn't be used with long-distance radio transmissions.

After the war, in 1948, he became Director of the Computing Machine Laboratory at Victoria University, where he worked on the development of a software for one of the earliest computers—the Manchester Mark 1. Turing wrote the first version of the Programmer's Manual for this machine, and was hired as a consultant in the development of a commercialized machine, the Ferranti Mark 1.

In 1951, he turned to mathematical biology, finally publishing his work "The Chemical Basis of Morphogenesis" in January 1952. He was interested in morphogenesis, the development of patterns and shapes in biological organisms. Turing's work on morphogenesis remains relevant today and is considered a seminal piece of work in mathematical biology.

Turing is widely considered to be the father of theoretical computer science and artificial intelligence. The creation of the Turing Machine is widely regarded to have been the foundation of modern theories of computation and computability. From the iPad to Facebook, much of the technology we use today can be traced back to Turing's genius. Mobile phones too owe their existence in part to this great man's intellect and vision.

Glossary:

- **Crack:** to find the solution to a problem.
- **Encipher:** convert a message into a coded form.

Organize the following events in the life of Turing in chronological order:

1____ 2____ 3____ 4____ 5____

- a. He released a book
- b. He worked on a computer program
- c. He designed a device to talk with people.
- d. He worked for an intelligence agency.
- e. He was able to decode messages from the enemies.

What do you think?

If you could use only one, which one would you use? A computer or a cell phone?

Reading 4

Skills:

- Details
- Understand negative facts
- Author's purpose
- Vocabulary in context

Getting started: Do you use any educational app? Which one?

IRIS LAPINSKI

Iris Lapinski is an **edtech** entrepreneur inspiring young people to engage with digital technology. She is CEO of Apps for Good, the award-winning education and technology charity working on digital inclusion, entrepreneurship and community action.



Apps for Good is an **open-source** education technology program that lets students **build apps** to solve problems they care about. Additionally, the charity offers a course that provides training and industry connections to volunteers who partner with teachers to deliver the program. There are currently 17,000 students from 230 schools on the course.

Iris has always been interested in the social power of digital media. **Prior to** Apps for Good, she worked as a consultant specializing in social sector investment, and the social and economic impact of telecoms and digital media, experience that would help her **set up** her charity.

She holds a BA in Cultural Studies from the European University Viadrina Frankfurt, and an MSc in

Human Rights from the London School of Economics and Political Science. Iris is part of the Royal Society of Arts and the Big Society Network's support program for the UK's best social entrepreneurs. In 2012, she was named one of Britain's 50 most influential people, a distinction that reflects the importance of people like Iris, someone who works hard to change the world.

*Adapted from: <https://www.nesta.org.uk/feature/10-tech-heroes-good/iris-lapinski-1/>

Glossary:

- **Edtech:** Edtech is the practice of introducing IT tools into the classroom to create a more engaging, inclusive and individualized learning experience.
- **Open source:** The term open source refers to something people can modify and share because its design is publicly accessible.

Collocations

*It's a technology program that lets students **build apps** to solve problems.*

Collocations are combinations of words which are usually used together, for example, **build + app**.

Other collocations with the word **app**:

- Install an app
- Download an app
- Launch an app
- Develop an app
- Mobile app
- App developers
- App store
- Database app

1. How does the author seem to feel about Iris?
 - a. The author thinks she is a technology genius.
 - b. The author thinks she has an impressive academic life.
 - c. The author thinks she wants to change the digital media.
 - d. The author thinks she dedicates her life to transforming our society.

2. Which of the following statements is NOT true?
 - a. Almost 20,000 students benefit from a course her charity teaches.
 - b. Iris teaches cultural studies at a university.
 - c. Apps for Good involves the community to find solutions to different issues.
 - d. Iris was considered an important public figure at the beginning of the last decade.

3. The word **prior** in paragraph 3 is closest in meaning to
 - a. after
 - b. before
 - c. during
 - d. while

4. The phrase **set up** in paragraph 3 is closest in meaning to
 - a. start
 - b. dream of
 - c. buy
 - d. finance

What do you think?

If you could create an educational app, which one would it be?

Reading 5

Skills:

- Understand details

Getting started: What do you know about Bill Gates?

A SPEECH BY BILL GATES



Who doesn't know Bill Gates? William Henry Gates III (born October 28, 1955) is an American business magnate and software developer, who is best known as the co-founder of Microsoft Corporation. He is one of the best-known entrepreneurs and pioneers of the microcomputer revolution of the 1970s and 1980s. However,

Bill Gates' world goes beyond computers. Gates has also engaged in a number of philanthropic activities. As someone who believes in contributing to the world, Gates has given big amounts of money to various charitable organizations and scientific research programs through the Bill & Melinda Gates Foundation.

In 2004, Bill Gates gave a speech at a High School about 11 things they did not and will not learn in school. He talks about how feel-good, politically correct teachings created a generation of kids with no concept of reality and how this concept set them up for failure in the real world.

Rule 1: Life is not fair -- get used to it!

Rule 2: The world won't care about your self-esteem. The world will expect you to accomplish

something before you feel good about yourself.

Rule 3: You will not make \$60,000 a year right out of high school. You won't be a vice-president with a car phone until you earn both.

Rule 4: If you think your teacher is tough, wait till you get a boss.

Rule 5: Flipping burgers is not beneath your dignity. Your Grandparents had a different word for burger flipping -- they called it opportunity.

Rule 6: If you mess up, it's not your parents' fault, so don't cry about what you go wrong. Think of this as a lesson to grow.

Rule 7: Before you were born, your parents weren't as boring as they are now. They got that way from paying your bills, cleaning your clothes and listening to you talk about how cool you thought you are. So, before you save the rain forest from the parasites of your parent's generation, try cleaning your own closet.

Rule 8: Your school may have eliminated the concept of winners and losers, but life HAS NOT. In some schools they have abolished failing grades and they'll give you as MANY TIMES as you want to get the right answer. This doesn't have any resemblance to ANYTHING in real life.

Rule 9: Life is not divided into semesters. You don't get summers off and very few employers are interested in helping you find yourself. Do that on your own time.

Rule 10: Television is NOT real life. In real life people actually have to leave the coffee shop and go to jobs.

Rule 11: Be nice to nerds. Chances are you'll end up working for one.

Glossary:

- **Developer:** a person or a company that designs and creates new products.

Which rule is about...?

- A. the real world not giving you so many opportunities _____
- B. not mixing your own problems with your work _____
- C. all jobs not being decent and can bring favorable circumstances _____
- D. two roles of power _____
- E. learning from your mistakes _____
- F. treating people well _____
- G. the injustice we live in our world _____

What do you think?

Which two rules do you agree with?

Reading 6

Skills:

- Details
- Organization

Getting started: What is/was your experience with technology at school?

LINDA SANDVIK

Linda Sandvik is a creative technologist making computing fun and educational for kids. She co-founded Code Club with Clare Sutcliffe after noticing a gap in **pupils'** computer knowledge, the lack of skilled computer teachers, and the boring, outdated national curriculum for computer classes. Code Club is a free national after-school **programme** teaching computer programing skills to school kids through the creation of games, animations and websites.

Apart from Code Club, Linda has also been involved in a number of interactive installations and campaigns, such as a No More Litter, a project to reduce littering in Oslo which featured a talking **bin**. She was also involved in the Scouts Digital Maker Badge project, creating new digital activities for people to earn their IT certification. Additionally, she was involved in the Happenstance project, an experiment to explore, change and improve the ways arts **organisations** use technology.



UNIT 2 – The Digital World

Reading 1

Skills:

- Details
- Author's purpose

Getting started: Have you ever bought something online? Was it a positive experience?

GET REAL! CAN THE DIGITAL WORLD EVER REPLACE THE PHYSICAL WORLD?

It was Amazon that started Internet shopping by moving book sales online. So why on earth did they later open a physical bookstore? It seems they discovered that people may buy a book online, but what makes them want to buy the book, is seeing it as a real object in a physical place.

Virtual learning

Virtual universities now provide free video lectures to millions of students. Online tests mark themselves automatically, students grade each other's essays, and there are Internet forums, too. But don't the students miss face-to-face discussions with each other? And isn't an enthusiastic teacher better in a classroom than on a video?

Old words, new meanings

Nearly all workers today spend time sitting in front of a computer screen, and we seem to lose touch with the physical world. We even forget that many of the words we use digitally come from the real world. For example, graphic designers used to **cut** out text and pictures with scissors, and **paste** them into a document to get everything in the **layout** right!



Physical survives

People thought downloading and **streaming** would take over music sales completely, and that we'd enjoy being free of physical CDs. But the sales of even vinyl records are booming, and it's the same in other areas. Board games are still popular, despite all the digital games around. And the number of high quality print magazines has been growing, too.



A book in the hand ...

Perhaps Amazon realized that although we may enjoy the convenience of **e-Books**, we don't *love* them in the same way that we love real books in our hands and on our shelves. We don't even feel that the **e-Books** we've bought are ours. And it just doesn't seem right that the greatest of all the classics, *War and Peace*, looks the same on an e-Book screen as a two-page report on traffic problems.

Overall then, while digital has its fans, it's clear that many people still feel the need for something physical that they can touch and feel.

Glossary:

- **Cut:** to delete (= remove) part of a text on a computer screen in order to place it somewhere else.
- **Paste:** to copy or move text into a document from another place or another document.
- **Layout:** the way in which the parts of something such as the page of a book, a website, a garden or a building are arranged.
- **Streaming:** a method of sending or receiving data, especially video, over a computer network.
- **E-book:** a book that is displayed on a computer screen or on an electronic device that is held in the hand, instead of being printed on paper.

Answer the following questions:

1. What is the author's attitude towards the digital world?
2. What did Amazon do that was surprising?
3. What might students in online universities miss?
4. Which words have we forgotten the real meaning of?
5. Why is it difficult to love e-Books themselves?

What do you think?

Do you think virtual learning can replace face-to-face education?

Reading 2

Skills:

- Scanning
- Find synonyms
- Vocabulary in context

Getting started: Is the digital world making people lose certain abilities?

THE DIGITAL AGE

- 5 We are now living in what some people call! *The digital age*, meaning that computers have become an essential part of our lives. Young people who have grown up with PCs and mobile phones are often called *the digital generation*. Computers help students to perform mathematical operations and improve their maths skills. They are used to access the Internet, to do basic research and to communicate with other students around the world.
- 10 Teachers use projectors and **interactive whiteboards** to give presentations and teach sciences, history or language courses. PCs are also used for administrative purposes - schools use word processors to write letters, and databases to keep records of students and teachers. A school website allows teachers to publish exercises for students to complete online.
- 15 Students can also enrol for courses via the website and parents can download official reports.
- 20 Mobiles let you make voice calls, send texts, email people and **download** logos, ringtones or games. With a built-in camera you can send pictures and make video calls in *face-to-face* mode. New smartphones combine a telephone with web access, video, a games console, an MP3 player, a personal digital assistant (PDA) and a GPS navigation system, all in one.
- 25 In banks, computers store information about the money held by each customer and enable staff to access large databases and to carry out financial transactions at high speed. They also control the cashpoints, or ATMs (automatic teller machines), which dispense money to customers by the use of a PIN-protected card. People use a Chip and PIN card to pay for goods and services. Instead of using a signature to verify
- 30 payments, customers are asked to enter a four-digit personal identification number (PIN), the same number used at cashpoints; this system makes transactions more secure. With **online banking**, clients can easily pay bills and transfer money from the comfort of their homes.
- 35
- 40

45

Airline pilots use computers to help them control the plane. For example, monitors display data about fuel consumption and weather conditions. In airport control towers, computers are used to manage radar systems and regulate air traffic. On the ground, airlines are connected to travel agencies by computer. Travel agents use computers to find out about the availability of flights, prices, times, stopovers and many other details.

*Adapted from Infotech. Cambridge University Press

Glossary:

- **Interactive whiteboards (IWB):** a piece of classroom equipment using a computer connected to a large screen that you can write on or use to control the computer by touching it with your finger or a pen.
- **Download:** to get data from a source, usually using the internet.
- **Online banking:** System through which bank customers can make transactions on the internet instead of going to a bank.

Using reading skills

Skimming and scanning are reading techniques that use rapid eye movement and keywords to move quickly through text for slightly different purposes. Skimming is reading rapidly in order to get a general overview of the material. Scanning is reading rapidly in order to find specific facts.

A. Look at the words below. Try to find them quickly in the text. In which line are they?

*Insertar palabras en ejercicio D sin el número en paréntesis.

B. Match the words in exercise 1 with the correct meanings (a-j)

*Insertar palabras y frases del ejercicio E

What do you think?

Which of the activities mentioned in the text do you perform?

Reading 4

Skills:

- Details
- Understand negative facts

Getting started: What experiences have you had of digital technology as a student?

THE REAL VALUE OF DIGITAL TOOLS

- 5 *A recent European Commission event (European e-Skills Week) focused on the lack of skills in digital technology among young people. While most young people use digital media for recreation - games and social networking - they are not necessarily competent in the skills needed to work in the digital economy, according to the European Commission.*
- 10
- 15 Digital technology is an increasingly familiar part of the school environment. Tablets have been introduced into many schools as the prices have dropped and versions for schools become available. Traditional chalkboards have been replaced by digital whiteboards in classrooms across Europe. In short, there's been a massive investment in both hardware and software in education.
- 20 Nevertheless, there is still a shortage of people who are skilled and qualified in information and communication technologies (ICT). So where does the problem lie?
- 25 For some education experts, the issue is that pupils are not taught about how digital resources work. These experts are in favour of teaching computer coding and programming in the same way as other traditional school subjects. Others point out that the potential of the digital classroom has not been fully exploited yet: in effect, the argument is more about how the new technological tools can be used to revolutionize learning rather than the actual tools themselves. One expert, Gareth Mills, points out that an interactive whiteboard might still be used with a traditional teaching style where the teacher talks to a passive group of students. This is to ignore the possibilities that putting the tools into the hands of the pupils can lead to. In Wales, a recent report recommended that, despite fears that students would be distracted if they had access to social networking sites, such sites should not be blocked in schools - they can in fact be used as a platform for sharing learning materials.
- 30
- 35
- 40 The reality is that digital media can truly inspire and enable new approaches to teaching and learning. For example, when students can view the content of a lesson before and after the class via a computer or mobile device, this frees timetabled class time for interactive and more focused work with the teacher.

45	Gareth Milis explains the benefits of working together on practical tasks and inter-school or even inter-country projects where students can develop problem-solving skills. This is precisely the type of skill that is needed to understand how ICT works, as the European Commission points out.
50	
55	In addition, sharing learning materials can give schools more flexibility in the traditional organization of school timetables. For teenagers in particular, changing the school day so that lessons start later can have an important impact on how well they learn. One UK school ran a trial where lessons began at 10 am instead of 9 am. The exam results at the end of the year showed improvement across all subjects, with pass rates going up by 20 per cent in English and by 34 per cent in ICT.
60	
65	The real value of digital tools, therefore, lies not only in the way they can deliver content to students but in the way they can change the whole landscape of classroom interaction. Events like the European e-Skills Week are key opportunities to show that where digital skills are concerned, schools need to look not only at what but also how they teach.

*Adapted from *Keynote Upper-Intermediate*. National Geographic Learning.

Read the article again. Are the sentences true (T) or false (F)?

1. According to the European Commission, young people have the knowledge and ability to work in digital technology.
2. According to the article, European schools are slow to use new technology with their students.
3. Currently, computer programming is taught too traditionally.
4. Using new technology in the classroom doesn't always change the way subjects are taught.
5. Students can study a topic before going to a class if digital media are available to them.
6. Studying later in the day can lead to better results for some students.

Find these words in the article. Choose the correct meaning (a-c).

1. **recreation** (line 6)

- a. education
- b. leisure
- c. work

4. **passive** (line 33)

- a. enthusiastic
- b. inactive
- c. uninterested

2. **hardware** (line 18)

- a. computer equipment
- b. computer experts
- c. computer programmes

5. **access** (line 37)

- a. produce
- b. find
- c. understand

3. **shortage** (line 19)

- a. excess
- b. lack
- c. number

6. **device** (line 43)

- a. machine
- b. page
- c. system

7. flexibility (line 52)

- a. difficulty
- b. time
- c. variation

8. key (line 65)

- a. frequent
- b. important
- c. rare

What do you think?

Do you think digital tools can really change the way education is perceived and managed?

Reading 5

Skills:

- Details
- Make connections

Getting started: Do you read newspapers? Why (not)? Is it better to read digital or physical newspapers?

WHAT IS THE FUTURE OF NEWSPAPERS IN THIS DIGITAL AGE?

The Internet has revolutionized the way to consume information. This revolution has brought lots of chances, especially when it comes to getting the latest information around the world. Apart from paper-based newspapers, digital newspaper subscription has surged in popularity. Though there is still increasing demand for paper-based newspapers or magazines, the digital publication offers some significant benefits. So, let's discuss the top reasons why digital newspaper subscription is the future.

A

Newsreaders subscribe to various newspapers as per their preferences. Mostly people prefer newspapers that provide **updated** news on the economic, finance, political, and other areas to the reader. Digital newspaper always stays ahead in the game because it remains updated throughout the day. Besides, **digital platforms** share engaging stories, which are generally not found in a paper-based newspaper.

B

Newspaper reading has various benefits, including reading great journalists and sophisticated vocabulary. Many people choose digital newspapers over paper-based newspapers because the former allows users to read current and well-written articles from the comfort of their places at any

time from anywhere.

C

The use of mobile phones and laptops has become a global necessity. Due to the digital newspaper, readers can search for the latest jobs available in different industries, and even apply to them online.

D

A large number of people check their smartphones as soon as they wake up. The addiction to smartphones is such that it feels incomplete without **surfing the Internet**. For many people, the morning is incomplete without reading a newspaper. Online newspaper subscription satisfies their need for checking their smartphone as well as reading the newspaper.

E

During the daily commute to the office, reading a newspaper is a great way for introverts to ignore other people. Most of the people do not like carrying paper-based newspapers all the way to their offices, so while you look into smartphone reading news, passengers may understand that you do not want someone to invade your personal space.

F

With smartphone usage increasing every day, people are relying on them for communication, entertainment, and information. Productive people consider ways to get the Wall Street Journal or The New York Times to save their money and time. Paper-back newspapers are expensive compared to digital newspaper subscriptions.

G

Companies always look for space online to market their products and services, which the digital newspaper subscriptions take care of with precision. Along with the latest news, the reader also gets to know about a new product. In other words, the online newspaper is a publication, which offers both news information from around the world as well as marketing opportunities to businesses.

Glossary:

- **Updated:** having the most recent information about something.

- **Digital platform:** types of computer systems or the software that is used.

- **Surf the internet:** to use the internet.

*Adapted from <https://techgraph.co/inside/what-is-the-future-of-newspapers-in-this-digital-age/>

Match the headings with the corresponding paragraphs.

1. Search for a Job
2. An opportunity for Marketers
3. To Avoid Conversations
4. Being Informed about the Latest Events
5. To Save Money
6. To Retain a Habit
7. Impeccable Writing Skills

What do you think?

Do newspapers as we know them have a future?

Reading 6

Skills:

- Details
- Vocabulary in context
- Make inferences

Getting started: Could machines/robots totally replace human beings in the future?

WHAT IS THE FUTURE OF THE DIGITAL WORLD?



Independent internet and **digital media** analysts think there will be a number of important **trends** in this new decade. These include cheaper smartphones, declining sales of tablets, the increasing use of **IoT technologies**, **Artificial Intelligence (AI)** and **Virtual Reality (VR)**, and continuous growth in the digital economy. **They** also expect a rise in cyber-attacks, which will lead to better security protocols, especially to help protect their connected cars or smart homes. Improved connection speeds, especially for Europe, and better mobile and home internet services are also part of the future.

It is predicted that there will be fusions between networks, technology, television, media,

transportation and industry. **For instance**, companies like Google and Apple could start working more in the **automotive** industry, major tech companies would move into television and streaming services.

With sustained growth in online services, the industry experts expect a gradual shift away from owning to using. For example, people sharing cars via an app, or streaming music and video-on-demand films, rather than buying products or downloading. The move towards more on-demand, subscription services is possible because of the increasing use of **ad-blocking software** which, in turn, could make the abundance of free internet services (like YouTube) a thing of the past.

Bitcoins and online payments will impact the future of financial institutions. Some banks could even close some of their branches as more people now use the internet for online banking. Further development in internet services will help cut intermediaries in other industries, too. Other considerations include **Big Data** and how EU legislation is dealing with data privacy and protection, as well as how, in the future, more access to personal data might affect people's insurance premiums or requests for loans.

These analyses also predict modest growth in the western world, but a bright future for Chinese, Indian and African industries. In telecommunications, Asia and the Pacific will become the world's largest market during the next decade, while growth in the main European markets will be weak, and possibly even negative.

Glossary:

- **Digital Media:** Digital Media is a blend of technology and content, like video games, social media or mobile applications.
- **Trends:** Tendencies
- **IoT technologies:** IoT (Internet of Things) describes the network of physical objects— “things”—that contain sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the internet.
- **Artificial Intelligence (AI):** Computer science related to smart machines capable of performing tasks that typically require human intelligence.
- **Virtual Reality (VR):** Environment full of scenes or objects that look real.
- **Automotive:** Related to motor vehicles.

- **Ad-blocking software:** They are simple software programs that prevent ads from being shown on websites.
- **Big data:** extremely large data sets that may be analyzed computationally to reveal patterns, trends, and associations, especially relating to human behavior and interactions.

*Adapted from <https://www.cbronline.com/what-is/what-is-the-future-of-the-digital-world-4926789/>

1. What is a problem described in paragraph 1?
 - a. The rise of virtual reality
 - b. Computer security
 - c. Low internet speed
 - d. Expensive mobile phones
2. The word **they** in paragraph 1 refers to
 - a. attacks
 - b. analysts
 - c. trends
 - d. sales
3. The phrase **for instance** in paragraph 2 can be replaced by
 - a. for example
 - b. on the contrary
 - c. in addition
 - d. because of
4. Which could be a consequence of the use of bitcoins and online payments?
 - a. People will lose a lot of money.
 - b. Some bank employees could be fired.
 - c. Some financial institutions could operate in Asia.
 - d. Bitcoins will replace the Euro in some European countries.
5. Which country is more likely to have a successful digital economy in the next decade?
 - a. The United States
 - b. Argentina
 - c. France
 - d. Japan

What do you think?

In your opinion, how much will AI evolve?

ANSWER KEY

Unit 1

Reading 1

1. d
2. b
3. c
4. False – No one understood how important her ideas were until years later.

Reading 2

1. 1B / 2A / 3C
2. 1. The Tech Museum of Innovation 2. Mexico
3. Jorge Camil Starr
4. economics
5. looked at the failure of the existing problems
6. Each educational center would be run by only one person with full responsibility. / They would use video games to deliver educational content.
7. The children's mothers also wanted to play video games.
8. Enova follows the students who graduate and drop out. / The information is used to improve their programs. / Enova also measures students' success on the external government exams.

Reading 3

1. D 2.E 3.C 4.B 5.A

Reading 4

1. D 2. B 3.B 4.A

Reading 5

- A. 8 B. 9 C. 5 D. 4 E. 6 F. 11
G. 1

Reading 6

1. D 2.B 3.A 4.C

Unit 2

Reading 1

1. He/she thinks the digital world can't totally replace the real world and material objects.
2. They opened a physical bookstore when they already had an online store.
3. Face-to-face discussions and enthusiastic teachers in the classroom.
4. Cut and paste
5. We don't feel those books are ours.

Reading 2

- A.
- | | |
|------------|-------------|
| 1. Line 6 | 2. Line 13 |
| 3. Line 16 | 4. Line 18 |
| 5. Line 25 | 6. Line 21 |
| 7. Line 27 | 8. Line 29 |
| 9. Line 42 | 10. Line 42 |
- B. a. 7 b. 1 c. 8 d. 9 e. 6 f. 3
g. 10 h. 5 i. 2 j. 4

Reading 3

- A.
1. store, organize and retrieve information from a database.
 2. fields
 3. a separate piece of information
 4. making changes, adding new records or deleting old ones.
 5. it is much faster to consult; it occupies much less space; records can be easily sorted; information can be easily updated; computer databased can be shared by a lot of users over a network.
 6. user-defined passwords and other security devices.

Reading 4**A.**

1. F (According to the European Commission, young people are not necessarily competent in the skills needed to work in the digital economy.)
2. F (Traditional chalkboards have been replaced by digital whiteboards in classrooms across Europe. There's been a massive investment in both hardware and software education.)
3. F (Experts are in favor of this being taught in the same way as other traditional subjects, which suggests that it is not currently taught traditionally.)

4. T

5. T

6. T

B.

1. B 2. A 3. B. 4. B 5. B
6. A 7. C 8. B

Reading 5

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

Reading 6

1. b 2. b 3. a 4. b 5. d

