

TEXTO A

Nobel Prize for Studying Neanderthal DNA

Monday 3rd October 2022, the Nobel Committee for Physiology or Medicine awarded the prize to Svante Pääbo, a smart Swedish geneticist who determined how to extract and analyze DNA from 40,000-year-old Neanderthal bones – an extremely complex and challenging process. His decades of research have made it possible for scientists to begin testing differences between today's modern humans and their ancestors.

Born in 1955, Pääbo spent three decades working on the Neanderthal genome, mostly at the *Max Planck Institute* in Leipzig, Germany. He studied mummies and extinct animals before focusing his efforts on Neanderthals. "I'm driven by curiosity, by asking the questions, 'Where do we come from?' and 'What were the important events in our history that made us who we are?'," Pääbo told *Smithsonian* magazine in 2006.

The morning of the 3rd of October, Pääbo was finishing a cup of tea when he got a call from Sweden informing him he had been awarded with the Nobel Prize. He was asked whether he ever thought of winning. Pääbo humbly replied that he did not really think that this study would qualify for a Nobel Prize. But award-winning scientific discoveries are apparently in Pääbo's blood. His father, biochemist Sune Bergström, shared the Nobel Prize in Physiology and Medicine in 1982. This was the eighth time that a child of a Nobel laureate also won a Nobel Prize.

Pääbo's unexpected win marked the outstanding start of last year's Nobel Prize announcements, which continued throughout the rest of that eventful week with awards in physics, chemistry, literature, economics, and peace. Winners get roughly 900,000€, which come from the money left by the prize's creator, Alfred Nobel, after his death, in order to contribute to science evolution.

Adapted from "Svante Pääbo Won Nobel Prize for Unraveling the Mysteries of Neanderthal DNA,"

Smithsonianmag.com, October 3, 2022. <<https://www.smithsonianmag.com/smart-news/svantepaabo-wins-nobel-prize-for-unraveling-the-mysteries-of-neanderthal-dna-180980883/>>

QUESTIONS

A.1.- Are the following statements TRUE or FALSE? Copy the evidence from the text. No marks are given for only TRUE or FALSE. (Puntuación máxima: 2 puntos)

a) Pääbo studies have only been focused on Neanderthals.

False. Evidence: “He studied mummies and extinct animals before focusing his efforts on Neanderthals.”

b) Pääbo was sure he would win the Nobel Prize with this research.

False. Evidence: “Pääbo humbly replied that he did not really think that this study would qualify for a Nobel Prize.”

A.2.- In your own words and based on the ideas in the text, answer the following questions. Do not copy from the text. (Puntuación máxima: 2 puntos)

a) Why are Pääbo’s discoveries important for other researchers?

His many years of study have allowed other researchers to compare the present human beings with their predecessors.

b) How much is the prize and where does the money come from?

The people who win a Nobel Prize get around 900,000 euros that are part of the money that Alfred Nobel, the inventor of the prize, left because he wanted to help science improve.

A.3.- Find the words in the text that mean: (Puntuación máxima: 1 punto)

a) clever (paragraph 1) **smart**

b) findings (paragraph 3) **discoveries**

c) occasion (paragraph 3) **time**

d) excellent (paragraph 3) **outstanding**

A.4.- Complete the following sentences. Use the appropriate form of the word in brackets when given. (Puntuación máxima: 2 puntos)

- a) If he **was/were** (be) a science researcher nowadays, his studies would deal **with** DNA.
- b) Since 2012, developments in chemistry **have led** (lead) to innovative options in the energy sector, **where/in which** big changes are needed.
- c) **Even though / Although / Though** the sale price was incredibly high, they managed **to sell** (sell) their summer home in only one month
- d) Complete the following sentence to report what was said.

“Did any researcher from your country win a Nobel Prize?”

He asked me **if / whether any researcher from my country won / had won** a Nobel Prize.

A.5.- Write about 150 to 200 words on the following topic. (Puntuación máxima: 3 puntos)

Which inventions do you think have significantly changed the world? Discuss.

In the grand tapestry of human history, certain inventions stand out as transformative catalysts that have reshaped the world. Among these, the printing press, a marvel of the 15th century, democratized knowledge and fuelled the Renaissance. Fast forward to the 21st century, the internet has become the modern-day equivalent, connecting people globally and revolutionizing communication.

The advent of electricity marked another important shift, birthing a cascade of innovations from light bulbs to smartphones. Meanwhile, medical breakthroughs like vaccines and antibiotics have extended life expectancy and curtailed once-devastating diseases. The steam engine and its descendants powered the Industrial Revolution, driving societies into an era of unprecedented productivity.

However, the most consequential invention could be argued to be the transistor, giving birth to the digital age and the ubiquitous computing devices that define our daily lives. In retrospect, these inventions are not just technological milestones; they are societal architects, molding the very fabric of human existence and charting the course of our collective future. As we marvel at the strides made, it becomes evident that these inventions have not merely changed the world; they have crafted it over.

TEXTO B

TikTok's Rise

TikTok in 2022 became the most-downloaded app in the world, quietly surpassing forerunners Instagram and Twitter. By the end of 2023, it will overtake YouTube as the social media platform that users spend the most time watching. The video platform's meteoric rise has surprised investors and industry experts. As it grows at fast speed, the newspaper *The Guardian* investigates some of the many questions surrounding its operations: the opaqueness of its algorithm and its effect on our brains.

TikTok's sprint towards world dominance began in 2018, when it first surpassed Facebook, Instagram, Snapchat, and YouTube in downloads. The following year, it became the fourth mostdownloaded non-gaming app in the world. In 2020, the Covid-19 pandemic poured gasoline on the app's already-explosive growth. As billions of people struggled through repeated lockdowns, the app increased downloads, reporting a 45% rise in monthly active users. A recent report showed that nearly half of people between 18 and 30 in the US use the platform and 67% of users between the ages of 13 and 18 use the app daily.

TikTok's algorithm, which serves intensely specific content to users, is a key element of its success. The platform, according to internal documents leaked in 2021, optimizes content for minutes and hours of view time – a departure from its competitors who historically prioritized clicks and engagement. That significant difference and its algorithm's impressive efficacy have raised alarm at the mental health impact of such intensive targeting.

Concerns about the consequences of extensive social media use have also been long standing, with studies suggesting excessive use can exacerbate mental health problems. Besides, TikTok comes with its own problems, including that its algorithm feed can make unhealthy trends go viral before they can be banned for safety.

Adapted from "From dance videos to global sensation: what you need to know about TikTok's rise," *The Guardian*, October 22, 2022. <<https://bit.ly/3TSeiC0>>

QUESTIONS

B.1.- Are the following statements TRUE or FALSE? Copy the evidence from the text. No marks are given for only TRUE or FALSE. (Puntuación máxima: 2 puntos)

a) TikTok will become the second most watched social media by the end of this year.

False. Evidence: “By the end of 2023, it will overtake YouTube as the social media platform that users spend the most time watching.”

b) TikTok’s algorithm is crucial for the app’s widespread popularity.

True. Evidence: “TikTok’s algorithm, which serves intensely specific content to users, is a key element of its success.”

B.2.- In your own words and based on the ideas in the text, answer the following questions. Do not copy from the text. (Puntuación máxima: 2 puntos)

a) How did Covid-19 affect the use of TikTok?

People had a hard time as a result of several lockdowns, and the use of TikTok grew significantly.

b) What are the main worries about using TikTok and other social media excessively?

Using social media too much increases psychological problems and provokes viral unhealthy tendencies.

B.3.- Find the words in the text that mean: (Puntuación máxima: 1 punto)

a) specialists (paragraph 1) **experts**

b) around (paragraph 1) **surrounding**

c) started (paragraph 2) **began**

d) almost (paragraph 2) **nearly**

B.4.- Complete the following sentences. Use the appropriate form of the word in brackets when given. (Puntuación máxima: 2 puntos)

a) TikTok was the top app **globally** (global) in the second quarter of 2020, because it is **easier** (easy) to use than others.

b) By 2025, ads on TikTok **will reach/will have reached** (reach) 30% of internet users **who/that** are aged above 18.

c) TikTok is an international version of Douyin, which **was released** (release) in the Chinese market

seven years **ago**.

d) Facebook has stopped **being** (be) the most downloaded app since TikTok appeared **on** 6th September 2016.

B.5.- Write about 150 to 200 words on the following topic.(Puntuación máxima: 3 puntos)

What is your opinion about the impact of social media on society? Justify your answer.

Social media's impact on society is a nuanced interplay of positive and negative dynamics. On one hand, platforms like Facebook and Twitter foster global connectivity, breaking down geographical barriers and facilitating the exchange of diverse ideas. However, this interconnectedness can contribute to feelings of inadequacy and anxiety as individuals compare themselves to carefully curated online personas.

The rapid dissemination of information on social media, while providing instant access to news and opinions, also raises concerns about the spread of misinformation and fake news. False narratives can gain traction quickly, influencing public opinion and even impacting political processes. Additionally, the addictive nature of these platforms poses challenges to mental well-being, with individuals seeking validation through likes and comments, potentially leading to feelings of isolation and low self-esteem.

In conclusion, the transformative power of social media in communication and connectivity is undeniable, but its impact is a delicate balance. While fostering global understanding, it also brings forth challenges related to privacy, mental health, and the unchecked spread of misinformation. Achieving a harmonious coexistence with social media requires a thoughtful approach that maximizes its benefits while mitigating its drawbacks for a healthier and more constructive digital society.