

## The History of the Cell Phone

Why was the first cell phone invented? Initially, it was invented to allow people to talk while they drove. It made its debut on June 17, 1946, weighing 80 pounds. Car phones became more popular in the 1980s through Motorola.

The 1940's version was a rotary phone. With a rotary dial, the numbers were arranged in a circular layout. The finger wheel rotated using one finger. There was a fixed stop position, to prevent further rotation. The 1980's car phone was made in a push button style. This made dialing quicker and easier.

Car phones were a convenience, but their best feature was security. If someone was traveling far from home and encountered car trouble, they could immediately call for help. Without a phone, they would have to wait on the side of the road hoping someone would stop and help, or walk to the nearest telephone.

The first cell phone was put on the market in 1983. It was called the Motorola DynaTAC 800x. It cost around \$4,000, and lasted for 30 minutes before losing power. To fully charge the phone again took ten hours. It had an LED display for dialing or recall. It could hold 30 numbers in its recall memory. It was almost a foot long in length, and weighed two pounds. Despite its weight and size, it was still considered the most portable telephone ever made. For the first time in history, people could make phone calls without the constraints of portable phone holders or wires. Having a cell phone during this time period was a symbol of wealth.

Privacy was an issue with these phones. The 1G cellular network was unencrypted, and others could easily eavesdrop using a basic scanner.

The second generation of cell phones came in the 1990s. They offered a 2G network, and the ability to text message. At the time, these messages were called SMS, for "short message service". The maximum size of the message couldn't exceed 160 characters.

The first method of SMH was called "multi-tap". Each number on the phone was connected to three or four letters. For example, the number 3 button on the phone had the letters "D", "E", and "F" on it. So, if you wanted to use the letter "D" in a text, you tapped once on the number 3 button. Similarly, you tapped the number 3 button twice for the letter "E", and three times for the letter "F". As you can imagine, it took quite a long time to type out a simple message using this method.

The IBM Simon is considered the first smartphone, and debuted in 1993. Customers loved it. It featured a calendar, address book, clock, notepad, email service, typing, and even apps. It was known as the "Simon Personal Communicator". The price was \$899 with a two-year contract, and \$1,099 without one. The 3G network came along because of the public demand for faster and faster internet speeds. The 2G technology simply couldn't keep up. It was introduced in Tokyo in May 2001. The main advantage of moving from 2G to 3G came from packet switching instead of circuit switching to transmit data. This provided much faster transmission speeds. It allowed online video and music streaming for the first time.

By the end of 2010, it was time for a 4G network. This new network offered speeds that were 10 times faster than 3G.

What does the future hold for further cell phone development? Some experts believe three dimensional screens that can move and allow users to touch what's being displayed may be an option. This would further develop into a screen that could display texture. A picture of a rock would feel rough, whereas a picture of silk would feel smooth. Whatever the future holds, we can count on witnessing extraordinary technological developments.

1. Although the structure varies at times, what is the OVERALL structure of this article?

- A. chronological order
- B. order of importance
- C. compare and contrast
- D. cause and effect

2. The following is true about the IBM Simon EXCEPT -

- A. It offers email service.
- B. It has an LED display.
- C. It has apps.
- D. It can only be used in a car.

3. What detail from the passage does the author provide that security was an issue with the first cell phones?

- A. details about the percentage of phones that were stolen
- B. explanation of how others could eavesdrop through a basic scanner
- C. details about the cost of insurance for phone ownership
- D. explanation of how many numbers were stored in the recall system

4. What does the highlighted word "constraints" above mean?

- A. an added benefit or advantage
- B. experience
- C. a limitation or restriction
- D. program

5. According to the passage, what was the advantage of 3G over 2G?

- A. 3G had circuit switching
- B. 3G had faster internet speeds
- C. 3G introduced the "multi-tap"
- D. 3G was the first smart phone

6. What can you infer about how the author feels on the future of cell phone technology?

- A. We have advanced as far as we can go.
- B. She is excited about what the future will bring.
- C. We never should have invested so much time into this technology.
- D. She is afraid that the costs will skyrocket.