

CELL PHONES

The *Wireless Advisor Glossary* defines a cell phone as a wireless communication (two-way radio) similar to mobile phone users. The word “cellular” is used because the phone uses base stations to divide service areas into several cells. These calls are then transferred from a base station to another base station as the user moves from cell to cell.

Historical Overview

Cellular phones were first introduced in 1947. Researchers examined mobile car phones that used small cells with frequency and realized they could help grow the traffic weight of mobile phones but technology at that time was not good enough and the FCC chose to cut the number of frequencies available. In 1968, the FCC, AT&T and Bell Labs proposed a cellular system that would use small broadcast towers. As the phones went to different areas, the calls would move from tower to tower. An inventor by the name of Dr. Martin Cooper, who worked for Motorola, created the first portable handset. Dr. Cooper made the first call on this portable cell phone back in 1973. A prototype system was invented in 1977 by AT&T and Bell Labs. By 1978, the new system was introduced in Chicago and in 1979, the first cellular telephone system was developed in Tokyo. Motorola and American Radio invented the next cellular radio-telephone system in the Washington/Baltimore Area. The FCC in 1982 finally authorized cellular service for the United States. The first AMPS (Advanced Mobile Phone Service) was introduced in Chicago by Ameritech in 1983. It took 37 years for the cellular phone to be commercially produced in the United States.

Social and Cultural Impact

All new inventions have always impacted our lives either technically, socially or culturally. Cell phones have found their way into our lives. We carry them around and we keep them close to us just in case we may miss a call or just to be able to talk to anyone while driving down the road. People can now call others if they are going to be late without leaving another party on the other line waiting. In South America, they introduced cell phones and this has made the people there more aware of promptness rather than leniency like before. Cell phones now come equipped with extra features such as calendars, alarms, clocks, etc.

Of course, there have been problems with the invention of cell phones. Many classrooms require that cell phones be turned off because they may be disruptive. This also applies at work, too. Cell phones have also caused problems such as what they call "digital shoplifting". This means that people have been caught taking pictures of books with their camera phones instead of buying the books. There have also been instances of people taking pictures while people are dressing in locker rooms. They have thus been banned from dressing rooms. There has also been some documentation that cell phones may be dangerous to our health.

Economic Implications

According to a Gartner report, cell phones will increase in price from \$174 to \$161 by 2009. Handsets are usually discounted in the United States and will eventually cost the consumer almost nothing. Cell phone sales with more features will become about 1/5 of mobile sales by 2008. Cell phones are a great invention but they have their drawbacks. Some

may be very expensive and require long contracts with companies to be able to have. Sometimes they cut off and even at times they do not work typically by fading in and out in some areas.

Facts and Figures about Consumers

In Canada, cell phone carriers invest about \$1 billion in phone communications per year, which include license fees of \$150 million. They currently use about 17 million wireless devices per day. Smartphones are very big in Asia and Europe. At this time, smartphones make up about 1.7 percent of the market with Nokia on the dominate side followed by Sony Ericsson and Motorola. Jupiter Research has found that most U.S. consumers, when prompted to accept a basic cell phone over a phone with a camera, PDA or MP3 player, would not pay as low as \$49. Jupiter Research has also determined that cell phones with voice and text messaging will continue to increase sales as that of phones that carry Java or BREW applications. In the European Market, Nokia has kept the lead followed by Sony Ericsson and Orange.

Changes in Media

Mass media continues to grow rapidly. Advertisers are beginning to use mobile phones for advertising tools. There are about 1.5 billion phones with increasing media capabilities that now they will be considering other forms of media and might run TV ads on a mobile device. We can expect to see as the industry grows, a sharp climb in product placement, short film making, content by sponsors, and increased advertising; not to mention marketing campaigns for mobile phones.

Predictions for the Future

According to a Gartner report, sales of cell phones will increase to about a billion annually by the end of these next ten years as 40 percent of the world's population will own a cell phone. Countries in Asia will play an important role in increasing the amount of circulation of cell phones to 2.6 billion by the year 2009. Right now, 25 percent of cell phones are being sold in Asia. Cell phones have already passed cameras, personal computers and landline phones.

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