

13 February 2005

By:



## [Technology that changed our lives](#)

### *Part 1: The Cell Phone*

Technology is evolving at such a rapid pace it's hard to tell what will happen in six months. It's hard to predict what products will make it to the market and which will take the crown and end up as everybody's favorite toy, business companion or home entertainment device. Every technology has changed our lives, some of them in manner more aggressive than other. It's hard to point out to a specific technology and makes it responsible for the major changes in a life of person, because every one of us may be influenced by other things. That's way we propose a series of articles about the major technologies and how they changed your life in the past 10 years. Maybe is the Internet; maybe is the PC, or other kind of device or service. And, in waiting of your answers we have choose for the first part of these series of articles: the cell phone. Can you imagine your life without a cell phone? Technology is also obviously turning more and more to the fun part of our lives as everything has the tendency to shrink in size but burst with power, be it processing, storage or communications-wise. The mobility aspect is becoming prevalent for all sorts of devices. Mobile entertainment such as MP3 players, digital cameras, portable game consoles and even tiny projectors that can turn basically any wall into a home theater are a reality for a growing number of users. Everybody is aware of the must-have gadgets that just keep you connected to everything going on around you, be it news, weather forecast, stock changes, etc. Perhaps the most effective and wide spread piece of technology today is the cell phone, many even admitting they are addicted to a cell phone. According to a recent study conducted for children's rights group Telefono Azzurro, some 37 percent of Italian children are "cell phone addicts." Irritability and mood swings were other symptoms linked to very frequent cell phone use among the young. In spite of a slow start and even a slower growing rate in the first years, the cell phones became soon enough a synonym for civilization. Cellular communication is even more wide spread than PCs: there are at least three times as many mobile phones operating in the U.S. today as computers, according to IDC. Actually, cell phones are getting more power and smartphones can easily run a head-to-head battle with a 3-4 year old computer. Having faster processors, dedicated platforms and operating systems, but also including storage devices like memory cards or even miniature hard disks is obviously telling everybody cell phones are no way just for making calls, actually sometimes it's just a welcome advantage for an MP3 player-digital camera-PDA-alarm clock-video player. So enhance all the features a cell phone has, give it more power, better screen quality, a clearer sound to it, have the ability to carry all your data with it and snap a picture or two when necessary and you will obtain a perfect device. And that's where a lot of attention is going, for all major manufacturers. Samsung says that it has developed the world's first eight-die multi-chip (MCP) package technology for use in high capacity mobile devices. The new MCP chip has a combined capacity of 3.2 gigabits and is only 1.4mm thick. This apparently means that there could be yet another new generation of cell phones and mobile devices offering more services and faster Internet surfing. If a two-inch display isn't enough for the applications you want to run on your cell phone, help is on the way, as a new type of screen is just around the corner, and it comes with VGA resolution. Samsung developed a display based on amorphous silicon technology (a-Si) which allows a 640 x 480 pixels resolution on the demonstrated 2.6-inch screen. Amorphous silicon (a-Si) and polycrystalline silicon (polysilicon or p-Si) are the two main silicon technologies used in the thin film transistors for LCD's. Low-temperature polysilicon can achieve a high degree of integration, making it the method of choice when producing

panels that require high resolution. However, cell phones aren't completely safe, and hackers are starting to create viruses especially for the Symbian or the Windows CE operating systems. Many of the most popular models of Bluetooth-enabled cell phones can be hacked easily, enabling a malicious hacker to steal phone books, images, calendar information, or virtually anything else stored on the phone, say a pair of security experts. So a lot more work needs to be done, but at the rate things are changing for mobile phones, we think that soon enough they will include the entire processing one could ask for, all the entertainment and online surfing, and maybe even make a call once in a while.