## Hardware!

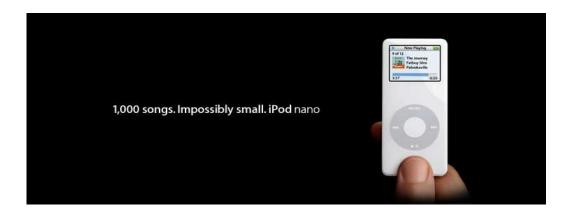
Throughout the years technology has changed rapidly, with many things such as MP3 players, web cams and wireless keyboards coming out of no-where to dominate a lot of the IT industry nowadays. Mp3 players and Apple I-pods nowadays consist of three

main companies CREATIVE', Netical and (apple). These three companies distribute and produce millions of Mp3 players and I-pods, the Apple I-pod section is said to be worth in and around \$10 billion. Creative are also mass producers of other pieces of hardware, including Web cams, keyboards and Memory cards. Netac was formed in China in the mid 80's and has been a major manufacturer and distributor Mp 3 players all over the world. With MP3 players seen in possession of nearly every young and old person nowadays, they are an amazing part of technology, a small gadget measuring around 11cm is able to store hours upon hours of music! They work with using flash memory ranging from 128mb around 4hours of music) to 4 GB (around 1000 songs). They have revolutionary changed the way people travel to places as they do not have to sit in silence and they have the opportunity to listen to the music that they desire via their MP 3 player or I-pod. Furthermore these little gadgets can be easily purchased at any decent electrical store.

When they were first released, MP3 players were very expensive with many people not able to afford them. But know with the mass production of them all over the globe they have became extremely popular everywhere, because of their easy use.

To put the music onto the actual MP3 player it can be done in two simple ways, the first method is to put music that is saved onto your PC into the device via the flash memory, to do this you plug the MP3 player to the USB socket were the device is then able to retrieve the data. In addition to this, with newer MP3 players you can simply plug them into your stereo system and transmit the data from the CD's or Tapes onto the device, by simply pressing the record button on the stereo. MP 3 players are rapidly replacing the old Walkman tape players and CD walkmans, which

are both outdated already by the new MP 3 players and I-pods. With a standard 128 MB device averagely costing you around £20 - £30and the dearest being around £200 (4 GB), it is obvious that the price is based on the amount of memory that one of these possesses, because of I-pods excellent distribution and advertisement departments in the company they will continue to sell many more of their products. In comparison to I-pods in my opinion I think Mp3 players are much better value and they are guaranteed to work much better, as the I-pod runs on a rechargeable Lithium battery, with the MP 3 players running on a standard AAA replaceable batteries. I also found there to be thousands of complaints lodged against Apple (makers of I-pods) for many of their products just simply not working after around one year of usage. This is mainly due to the lithium battery, which usually runs out of life in the same way as a mobile phone would.



In addition to the faults of the I-pod, there are also many pluses involved with the gadget, for example its very fashionable appearance as seen here above. Furthermore it has more of user-friendly interface as you can access your music a lot more easily, than a standard MP 3 player.



With being able to put any song that is saved on your PC onto your Gadget, there is always the issue of using songs that not have been illegally downloaded, for example

off sites such as . It is necessary to put songs onto your MP3 player which have been downloaded with he appropriate license required or just take them of your CD's which you have at home. MP 3 players can also act as mass storage device, in which you are able to store data off your computer (eg. Word documents, spreadsheets etc.) and move them to other computers, so in fact an MP 3 player also acts as a USB pen drive.

Now focusing on the amazing part of technology, that is the Web-Camera. Invented and developed hand in hand with the Internet, these wonders have many excellent and efficient uses, for example if you are away for a weekend and if you to keep an eye on things at home, or you could even see what your friend from Australia actually looks like!



With using such Internet chatting services as



the use of a web-cam you are able to see the person you are talking too, providing they give you permission and they actually have web-cam. Almost all of the cams on the market

seem to have very similar specifications. They usually claim to have about the same resolution - most say 640x480. What you will find out is that there is a huge difference in image quality between various web cams.

All modern computers are installed with USB ports which most all modern devices work off, such devices as MP 3 players, I-pods, Web cameras and wireless keyboards all run off the standard USB connection port found on the front or back of your PC. The Web cams simply run off this connection port making installation very simple.

Educationally and training wise, Web cams can be very appealing as you can have video conferences with people all around the world, which enables an easier environment to talk to people and it can be a lot more truthful, as you will know the person you are talking too, is that actual person.

They have many uses, good and bad as Web-cams can be used for illegal acts such as prostitution, which could be shown live on the Internet via a Web cam. But in my opinion if you have Internet facilities at home or in a business it is well worth your while to own a web-cam as it opens many boundaries for you,



technology wise. As a major market leader in the department of web cams and

wireless keyboards, Logitech sells more web cams than anyone: 25 million. With high quality products and a quality customer service department, Logitech has developed these excellent pieces of hardware even more. With prices ranging from £10-£200, can definitely be justified as an excellent purchase.

Along with web cams, are also mass producers of *WIRELESS*\*\*KEYBOARDS\*\*, which have also become widely available over the past few years.

Working exactly



the same as a standard keyboard, apart from the element of excess wires taking up space in and around the back of your PC.

Costing from £20 - £90 these keyboards are obviously based on technical quality as the higher price you are prepared to pay, the higher quality the keyboard will be. There are countless wireless keyboards on the market. Most of them have an operating range of 6 to 10 feet and use infrared technology so line-of-sight is a problem. Some companies' wireless keyboards use radio signals, this means there are no line-of-sight boundaries, and some keyboards have got an incredible 100-foot range. Additional features include 15 hot keys, USB-based receiver, and eight channels and 65,000 unique addresses for increased security.



In my own opinion I think that wireless keyboards are an excellent acquisition if you are purchasing a brand new PC without a standard keyboard, but if you already own a standard keyboard with wires it may be a waste of money, as they will operate the same way.

In addition to this it depends if the person buying the wireless keyboard is looking for a clutter-free environment in their home or office.

Using wireless keyboards in an educational environment would not be that beneficial as a lot of the work done at a computer is first hand and you do not really require the wireless technology whilst in an educational environment. Furthermore in a school environment, it would not be appropriate for wireless keyboards to be available to students or staff for a security reason as it would be very easy for people to steal the keyboards.

The three pieces of hardware I have chosen have been big factors in the revolutionary change in the I.T. industry in past few years. They can be found in huge percentage of households throughout the globe and with the way things are going now technology will continue to change rapidly. Each of these three pieces of hardware will continue to develop rapidly and we could be seeing even more wonderful inventions within the next few years at affordable prices, and very easy to find on our usual high street outlets.

Martin McKeown

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