KEEPING UP WITH TECHNOLOGY

(We would like to thank John and Robert aged 11 and 12 years old, who are two school boys from the region of upstate New York in USA, for contacting COTA NSW to contribute the following website link on The History and Significance of Software) http://bscdesigner.com/articles/software-history.html

“Technology continues to evolve, and it is difficult to say what the future of software entails. Nowadays, users don’t even need to download software to their computers – they can run programs directly from the ‘CLOUD’ with minimal installation. While artificial intelligence and self-aware robots seem like the stuff of science fiction, it’s actually possible that the computers of the future will be able to program themselves.”

Digital technology has many more applications than just our television transmissions, such as internet connectivity through satellites, fibre optics, mobile phones / smart phones, computer data and digital cameras just to name a few.

Digital TV is here: Many people ask “Why did we have to change to Digital TV?”

One of the major benefits of digital television is that it uses about half the bandwidth than analog. The broadcast signals can be compressed to provide four or more channels in the same bandwidth required for only one channel of analog television, yet provide better sound and about five times more picture information (picture elements, or pixels) than conventional television. http://www.dba.org.au/

Why does my signal drop out?: The big difference between digital and analog waves is that digital waves are stepping, square, and discrete, while analog waves are smooth and continuous. You may have received a transmission on the analog TV channel that was degraded or poor quality – it may have been ‘snowy’ or have poor sound. Whereas a digital signal is finite – it is good quality and does not degrade over time – the problem we have is that is it either ON or OFF / YES or NO. When your picture freezes or you get the little square pixels on your TV screen it means that the signal has stopped or has dropped out.

Digital Signals: must have a finite set of possible values. Timing graphs of these signals look like square waves.

Analog Signal: While these signals may be limited to a range of maximum and minimum values, there are still an infinite number of possible values within that range. https://learn.sparkfun.com/tutorials/analog-vs-digital

If you live more than 50km away from the nearest transmission tower, you may experience problems. Naturally, your reception can also be hampered by large objects obstructing your external television antenna such as trees or mountains. You can find the location of your nearest transmitter by visiting: http://ozdigitaltv.com/transmitters/NSW

The remedy may be as simple as a minor antenna adjustment, but more information can be located on the government website http://news.digitalready.gov.au/december-2011/how-to-tackle-poor-reception/ or call them on 1800 201 013.
What is High Definition TV? (HD or HDTV)
A lot of people get the impression that HDTV and Digital Television are the same thing. This is not the case. Digital Television offers many things and High Definition is one of them. HDTV gives very clear, crisp pictures with vivid colours and up to five times more detail than ordinary standard definition TV. Some programmes are made with cinema-style 'surround sound'. HD broadcasts are particularly suited to flat TV screens (LCD and Plasma).

WHAT DO ALL THOSE ADS ON TV MEAN?:
Do you find yourself asking “What on earth is a blue-ray, blue-tooth and blue-berry?” “Is this something I should know about?” Hopefully these simple descriptions will help you.

Firstly, let us make it clear that a Blueberry is a tasty fruit, where as a Blackberry can also refer to a type of ‘Smartphone’. Other smartphones include iPhone, Android and Samsung Galaxy. Blackberry is a high end market smartphone designed for business purposes. Smartphones can browse the Web, access email, and text-messaging as well as view attachments sent in a variety of formats, so there is no longer a need to carry a laptop computer around with you. Plus store contacts in your address book, and keep up with your to-do lists and tasks.

Blu Ray is a high definition version of DVDs. (The definition of a DVD, is Digital Video Disc, which is a type of compact disc able to store large amounts of data). Blu Ray gets its name from the blue-laser that is needed to write and read data from the disc. A 50Gb Blu-Ray disc can hold up to 9 hours of high-definition video footage. This compares to about 10 recordable DVDs. There are some manufacturers that are making players that will be able to use both disc types. Obviously these are more expensive than the single player types.

What is Bluetooth? Bluetooth is a technology that allows you to remotely access and use devices on a computer or phone without the use of wires. Originally it was used for connecting headsets to a mobile telephone. Wireless signals transmitted with Bluetooth cover short distances, from 5 to 10 meters (32 feet in old language). Like the wireless technology found in your average home wireless network (see Wi-Fi), Bluetooth devices communicate using radio waves in order to remove the need for a physical wired connection. Bluetooth signals travel through walls, windows, doors and can get great reach depending on what is in your way. For instance: A person could leave their telephone upstairs and still talk on their headset all around the house thanks to our porous walls. (sourced from: www.makeuseof.com)

What is Wi-Fi? WiFi is a term to describe a wireless networking technology used across the globe, and is a play on the older term Hi-Fi. WiFi uses low power microwave radio to link one or more groups of users together, or to provide a link between two buildings. It can span several kilometres point to point but requires a clear line of sight. Reception can be hampered by large objects obstructing the signal such as trees or mountains. WiFi hotspots cover an area of a hundred metres radius using multiple channels to provide multi-user access to a central Internet access point. (sourced from: www.africonnect.com)

What is a Wii-U? Wii-U is a home video game console released by Nintendo. A distinguishing feature of the console is its wireless controller, the Wii Remote, which can be used as a handheld pointing device and detect movement in three dimensions. (sourced from: en.wikipedia.org/wiki/Wii)

What is an APP? http://www.gcflearnfree.org/computerbasics/3
An app is a type of software that allows you to perform specific tasks. Applications for desktop or laptop computers are sometimes called desktop applications, and those for mobile devices are called mobile apps.

* Please Note: www.ascca.org.au Australian Senior Computer Clubs Association advise that there are security risks associated with wireless access (especially in public access points like libraries and internet cafes). In theory, anyone within radio range can listen in or transmit data on the network. This means hackers can get into a network via wireless and can obtain personal and financial information, and/or access your internet connection for free – leaving you to pay the bill. It is ESSENTIAL to protect your computer and internet access by ensuring you have the most up-to-date security available. Always, always password protect your log-in user’s authority.