## SHOALHAVEN PC USERS GROUP NEWS January 2019

# Our first meeting this year is Friday, January 18. It begins at 7.30 pm and Visitors welcome

## Sunday Special Interest Group Sunday January 20 1,00 pm

Emerging technology brings new Language



Earthrise?

#### **On December 21, 1968**

Apollo 8 launched from the Kennedy Space Center in Merritt Island, Florida. The three-man crew—Frank Borman, Bill Anders, and James Lovell—were the first humans to escape Earth's orbit, venturing 240,000 miles farther than anyone before them.

Their mission was to travel to and orbit the moon, testing the viability of a future moon landing. Although they were instructed by NASA to take pictures of the surface of the moon, capturing photographs of Earth was not a priority. NASA was focused on getting to the moon and beating the Soviet Union in the space race; everything else was secondary.

During their lunar orbit, the crew emerged from the dark side of the moon to see the Earth rising before them over the lunar horizon. They scrambled to capture the image. Borman took one photograph in black and white while Anders captured one in color. This was the first color photograph taken of the Earth from the moon and became known as Earthrise. Our thanks to Emmanuel Vaughan-Lee



#### On December 18, 2015 ...

NASA released an incredible new version of that same type of image, this time taken by the Lunar Reconnaissance Orbiter, a spacecraft that has been studying the moon since 2009.

The LRO, as its known, uses a narrow angle camera to study fine details on the lunar surface. But the team behind it were able to turn that camera toward the Earth and rifle off a number of images in succession. Those were combined to make the mosaic image we see here.

"The colours are only approximately what an intrepid explorer would see from the Moon," the researchers write in a blog post on the Arizona State website, "because the human eye is fully sensitive to all colors across the visible wavelength range, whereas the [wide angle camera] sees through a set of narrow band filters," the researchers write.

#### If this is of any interest to you, go to:

https://www.theverge.com/2015/12/18/10585198/nasa-new-earthrise-photo-earth-moon-apollo-8



I hope your Christmas and New Year season was a safe and happy event.

2018 was a good experience for the club in terms of member participation at our meetings. On a few occasions, we had a guest speaker. The willingness of those attending to also share their thoughts and knowledge prompted the committee to make more time for member input.

The shift seems to work well. Your thoughts on this approach would be appreciated.

Our program for the next few months is:

**January:** Richard will share a few thoughts on new services Google is offering for those who have become accustomed to the digital mentor.

**February:** AGM and a few ideas from David on other devices now tempting the digital adventurers in our midst.

**March:** A few thoughts from Jack on the subject of Linguistics. Given his occasional observations about the English language...or the way we use it, we might even share a little more 'Aussie English'

Richard

### What might have been...

Charles Babbage (1791-1871), computer pioneer, designed the first automatic computing engines. He invented computers but failed to build them.

The first complete Babbage Engine was completed in London in 2002, 153 years after it was designed.

Whereas Babbage is credited with the machine's conception, it was perhaps his friend Ada Lovelace who best understood its promise and the potential that computers would one day fulfil.

The daughter of Romantic poet Lord Byron, Lovelace was a gifted mathematician and intellectual who translated an Italian article on the Analytical Engine and supplemented it with extensive notes on the machine's capabilities.

In these notes she not only explained the engine more clearly than Babbage had been able to, but she also described an algorithm it could carry out that is often considered to be the world's first computer program.

#### Windows vs Ford...

For all of us who feel only the deepest love and affection for the way our lives have been enhanced by computers, read on.



At a recent computer expo (COMDEX), Bill Gates reportedly compared the computer industry with the auto industry and stated,

"If Ford had kept up with technology like the computer industry has, we would all be driving \$25 cars that got 1,000 miles to the gallon."

In response to Bill's comments, Ford issued a press release stating:

If Ford had developed technology like Microsoft, we would all be driving cars with the following characteristics:

- For no reason whatsoever, your car would crash.....twice a day.
- Every time they repainted the lines in the road, you would have to buy a new car.
- Occasionally your car would die on the freeway for no reason. You would have to pull to the side of the road, close all of the windows, shut off the car, restart it, and reopen the windows before you could continue. For some reason you would simply accept this.
- Occasionally, executing a manoeuvre such as a left turn would cause your car to shut down and refuse to restart, in which case you would have to reinstall the engine.
- Macintosh would make a car that was powered by the sun, was reliable, five times as fast and twice as easy to drive - but would run on only five per cent of the roads.
- The oil, water temperature, and alternator warning lights would all be replaced by a single "This Car Has Performed An Illegal Operation" warning light.
- Occasionally, for no reason whatsoever, your car would lock you out and refuse to let you in until you simultaneously lifted the door handle, turned the key and grabbed hold of the radio antenna.
- Every time a new car was introduced car buyers would have to learn how to drive all over again because none of the controls would operate in the same manner as the old car.

Thanks Jack

Some of you will have seen this over the last couple of weeks as a bloke shares breakfast with a friend.



Go To:

https://www.facebook.com/geoff.spencer.585/videos/330711934197025/

He occasionally shares a meal with us.



I am familiar with John Lopez's work, and thought this would give you something to check out.
It is amazing to see what he can do with a pile of scrap metal. His studio is at Lammon, South Dakota.

For those of you planning to travel this summer, it might be a worthy stop on your trip.

The PR characters have used their own art to describe the work done by this skilled artist.



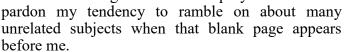
'The rusted carcasses of discarded equipment stand testament to generations of labour. And the man who knows blood lines has picked through them, choosing the elements of the past—the actual implements that ploughed the soil or cut the grain or dug the dinosaur—and created the curve of a jaw, the twitch of a tail, the power of a shoulder'

http://www.johnlopezstudio.com/ Thanks Faye

#### DNA

Why should I be thinking or writing about DNA in a letter like this?

The purpose of this letter is to remind us when the meetings are due. I hope you



When a previously unknown cousin rang a few days ago and suggest we meet, I decided it was time to learn al little more about DNA which had triggered this unexpected greeting.

It means different things to different people and while searching for a simple explanation for my own use, these few words helped me understand why we use it often in our daily conversation. Google tells me (summarised) that it is: A nucleic acid that carries the genetic information in cells and some viruses. It contains the genetic code and transmits the hereditary pattern.

Nobel Laureate Sir Frank Macfarlane Burnet was considered one of the twentieth century's leading scientists, and was moved to express this opinion in or about 1978:

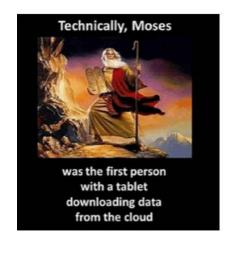
"I can see no practical application of molecular biology to human affairs...DNA is a tangled mass of linear molecules in which the informational content is guite inaccessible"

This was of course, before the computer as we know it today existed, and few, if any would expect such a 'tangled mess of data' ever likely to be deciphered.

I find it exciting as secrets of time, space, genetics and history in general begin to unravel when thinkers have the tools to make it happen.

If this has not put you to sleep, the next page might do the trick: Chromosome theory of inheritance. DNA

Frank



# Chromosome theory of inheritance. DNA The molecule of life

The molecule known as DNA was first identified in the 1860s by a Swiss chemist called Johann Friedrich Miescher. Johann set out to research the key components of white blood cells, part of our body's immune system. The main source of these cells was pus-coated bandages collected from a nearby medical clinic.

Building on Walther Flemming's findings with chromatin, German embryologist Theodor Boveri provided the first evidence that the chromosomes within egg and sperm cells are linked to inherited characteristics. From his studies of the roundworm embryo he also worked out that the number of chromosomes is lower in egg and sperm cells compared to other body cells.

American graduate, Walter Sutton, expanded on Theodor's observation through his work with the grasshopper. He found it was possible to distinguish individual chromosomes undergoing meiosis? in the testes of the grasshopper and, through this, he correctly identified the sex chromosome?. In the closing statement of his 1902 paper he summed up the chromosomal theory of inheritance based around these principles:

Chromosomes contain the genetic material.

Chromosomes are passed along from parent to offspring.

Chromosomes are found in pairs in the nucleus of most cells (during meiosis these pairs separate to form daughter cells).

During the formation of sperm and eggs cells in men and women, respectively, chromosomes separate.

Each parent contributes one set of chromosomes to its offspring.

https://www.yourgenome.org/stories/the-discovery-of-dna

There is always the risk that we take ourselves too seriously but it's an exciting journey to sometimes follow the path when we ask ourselves...whu?



That's about it for this month.











We meet at Bomaderry
Bowling Club
each month
on the third Friday at 7.30 pm
and
the third Sunday at 1.00pm

Visitors welcome