>PC Update

April 2020

Publishing Information

Editorial April 2020

Hugh Macdonald

Hello and welcome to the April 2020 edition of PC Update. The whole world has changed since I last wrote an editorial in this magazine.

Although there are enough mentions of coronavirus (COVID-19) in this issue, my aim when putting it together was to give you enough tips, tricks and reviews to keep you occupied in these times when we're all largely confined to our homes.

The club is doing its best to transition to the new reality that we live in. Tomorrow night will be our first ever all online monthly meeting, and as David Stonier-Gibson mentioned in his report, the committee is now meeting through video conferencing and Coder Dojo is now running this way too. Hopefully by next month we'll have reports of SIGs meeting via web conferencing too.

In the meantime enjoy items such as a few book reviews from Tim McQueen, a review of Linux Mint 19.3 (a good upgrade path from Windows 7 if Windows 10 doesn't appeal to you), some interesting Internet finds that will give you things to read and do throughout the month and all the usual items such as the East SIG report, DOTW and Yammer highlights.

Speaking of Yammer, I've included an article on how to login to it this month. In this time of social isolation, it's a great time to join the friendly Melbourne PC User Group community on Yammer, so please check that out, and seriously consider logging in.

Stay safe everyone, and I'll catch you next month.

From The President April 2020

David Stonier-Gibson

What a difference a day makes!

I have started measuring time in Corona weeks and months. Things are happening so fast in this new, weird, wacky, and scary world we suddenly live in. Last week's reality, its truth, now seems like months ago, and today there's a different truth. The situation changes by the hour and by the day. In just one week a team at Oxford University developed a ventilator that repurposes components that are already in plentiful supply within the UK National Health System, and can be made in quantity very quickly. Many within the hobby 3D printing community have turned their efforts towards making things like masks and face shields. YouTube is full of DIY mask plans, and warnings against using them.

Almost a full 180!

Three weeks (6 Corona months) ago I was concentrating my attention on things like creating a Maker Room at Moorabbin, teaming up with a 3D printer company to help equip that room, and running robot workshops for kids. I wanted to run daytime monthly meetings for members who won't venture out at night. Now, suddenly, that's all on the back burner and everything is about online activities. Just this morning, Saturday, I e-tended the club's Coder Dojo (programming workshop for kids) online with my grandson, along with other kids and parents all over South East Melbourne. The session was very successful, with about 12 kids taking apart while having fun and learning. The next session will be even better with the learnings gained.

We held our recent committee meeting by teleconferencing. We made it just about our response to the CV19 (as I call it) situation, and the things our club can do to keep members engaged. The meeting ran very well, in many ways better than a face to face meeting. Right now there is also a conversation going on about running our AGM online. More on that as we start finding answers.

Get social

There has been a noticeable increase in the use of Yammer, our private social forum. Not only have I seen more users, but also more posts. Yammer is a great way, and a safe way, to stay in touch with fellow members. In case you are unsure of how to use your Melb PC log in to access Yammer, Hugh Macdonald is writing up some instructions elsewhere in PC Update.

BCNU on Yammer!

iHelp – still here for you

And if you are struggling to sign in to Yammer, remember that you can always contact iHelp. This is our members-only computer help service that is there to help you with any computer problem. It is run by a band of dedicated volunteers, and handles an average of 2 to 3 jobs per day, 365 days/year. The majority of computer problems are software related, so most can be fixed without face to face contact. You can contact iHelp via iHelp@melbpc.org.au or on 03 9276 4088. You can also post any problems on Yammer and have several hundred members eager to help. If you leave a call-back number, a landline is preferred; it costs your club more to call mobiles.

Tip: *Stick the iHelp phone number on your fridge or notice board in case your computer can't get online.*

SIG meetings

By now all face to face SIG meetings will be suspended. Some SIGs will have already found ways of moving online. But we (committee) are working to create a uniform recommended set of tools for all SIGs to use. It's taking some time because there are actually several use cases (scenarios) we are trying and cater for. But hopefully in a few days we will have some firm recommendations (no obligation attached) and will communicate them to the SIG conveners.

Monthly meeting

We are working hard to move the monthly meeting online. We have a technical plan that should accommodate many more e-tendees than we normally get for the streamed meeting. I have even got a really interesting guest speaker who lives too far away to present in person, so there's a win for us! We will try and provide a usable mechanism for questions and feedback from everyone. It's not going to be as slick as Aunty's Q&A, but we are giving it our best shot.

Ideas please!

I am constantly wracking my brains (some presidents do 'av 'em!) for ideas to engage and occupy members. Most of us are stuck at home now, and need to avoid cabin fever. So if you can think of some activity, online event, game or anything to make life interesting in the Corona Age, please let me know. You will find that by championing an entertaining activity that other members can benefit from you will have more purpose while you are in isolation. Two members have already agreed to help out with a couple of competitions. The committee will do whatever we can to help you implement good ideas that will benefit all our community. Maybe you have a skill you would like to share? An interest that others might join in on? Let me know. president@melbpc.org.au

Stay safe! And don't expect this to be over by Easter!

April 2020 Monthly Meeting

The Monthly Meeting will be held Wednesday, April 1 at 7 pm via streaming.

Guest Speakers: Dr Anton Hassell
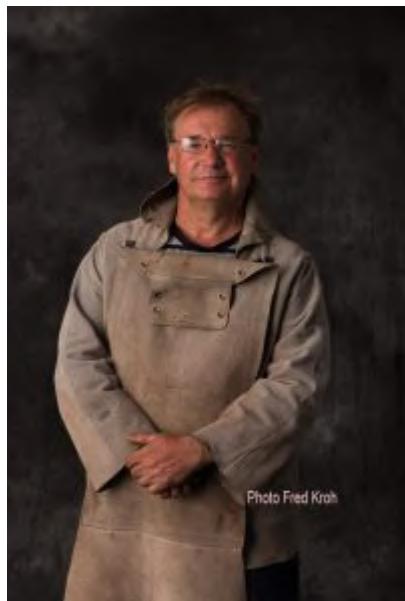
Topic: The arcane art of making science-based bells

This month's guest speaker is Dr Anton Hasell. Anton is a sculptor living in Central Victoria exploring the use of both traditional and digital tools in the design of bells, interactive public-space installation, sculpture and printmaking. He is best known for the creation of the Federation Bells Carillon in Melbourne and for other public-space artworks in Australia, New Zealand and the USA.

Anton has recently completed the design, casting and tuning of ten 'difference-tone' bells for the Longnow 10,000 year Clock project in Texas USA.

In-house Speaker: Paul Hattam

Our member speaker is Paul Hattam, who will be talking about the newly established South East Melbourne Coder Dojo and Scratch programming.

Meeting Agenda

7.00 pm sharp: Meeting opens. Host is David Stonier-Gibson

Guest speaker: Dr Anton Hassell

President's Report: David Stonier-Gibson

Social break

Q and A with George Skarbek

In-house speaker: Paul Hattam

What's New? with Tim McQueen

9.30pm: Close

The meeting is streamed live online at https://www.melcc.org.au/streaming

How To Use Yammer

Hugh Macdonald

In this unfortunate time of COVID-19, all SIG meetings, as well as other activities of the club, have ceased in the best interest of members health. This may leave you wondering how you can explore your love of technology in this time of social distancing. Fortunately, there is a large community of club members online discussing a range of topics related to technology, politics, current affairs and life in general daily.

So how do you access this online community? Through a Microsoft tool called Yammer that the club has access to.

How do you log in to Yammer? This step by step guide will show you how to do that so you can resume interacting with other club members again.

The first step is to open your favourite web browser (i.e. Google Chrome or Firefox) and head to http://www.office.com. That should bring up a page that looks like this:
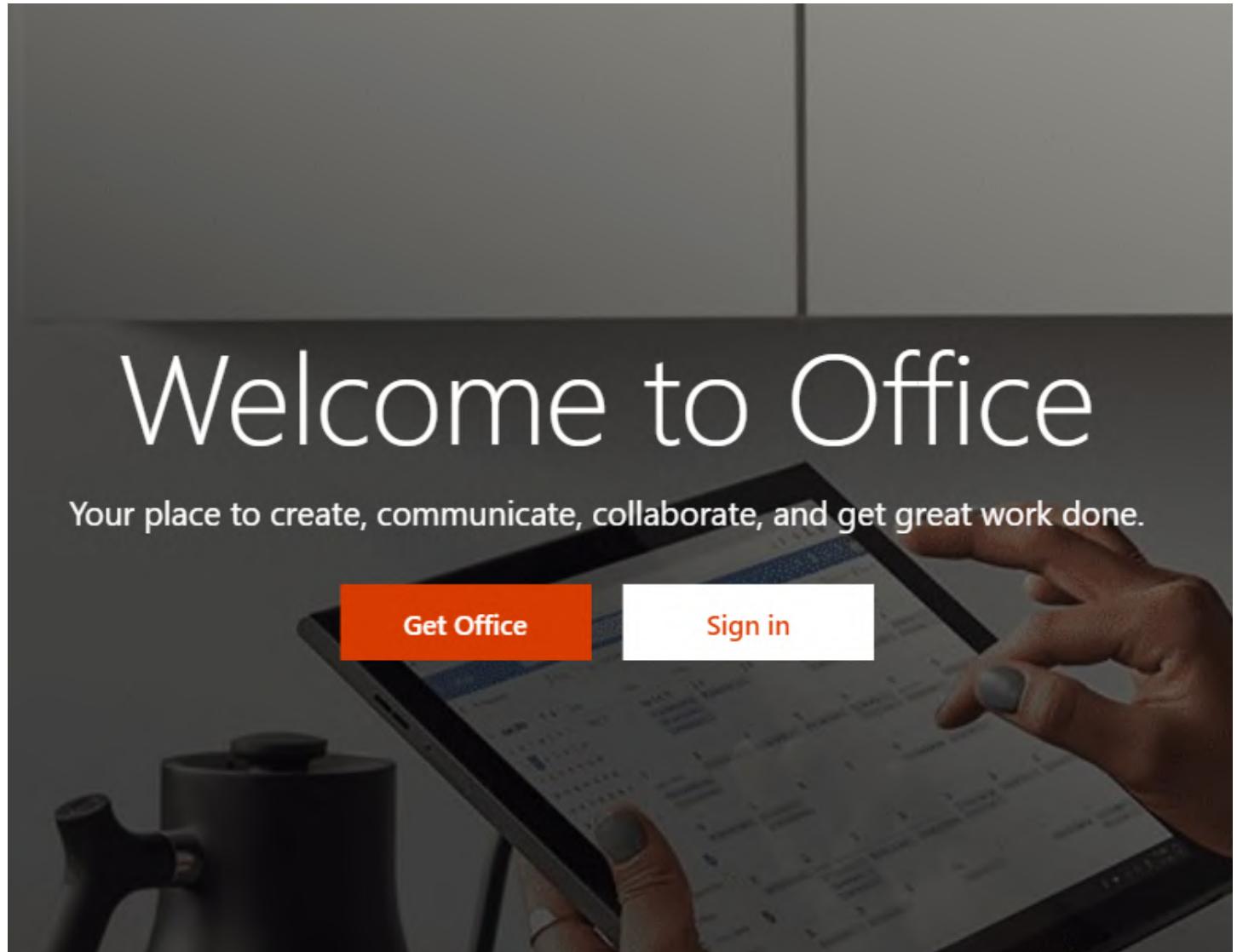
The next step is to click on the large white 'Sign in' button (pictured above) which should give you a page that looks like this:
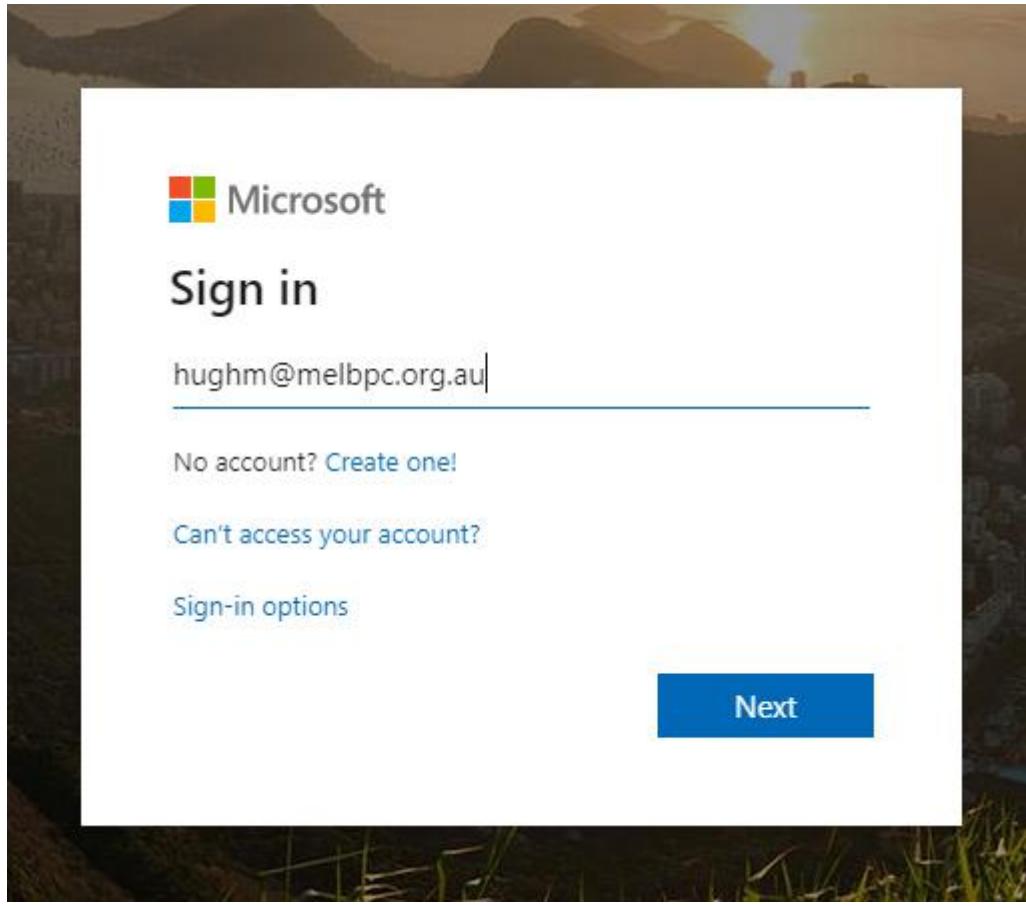
You'll get a Microsoft sign-in screen like the one above and this is where you enter your @melbpc.org.au email address as I have done (If you don't know your username or you've forgotten it, give the friendly iHelp team a call on (03) 9276 4088). Once you have done that, hit the blue 'Next' button, which will bring you to another page that looks like this:
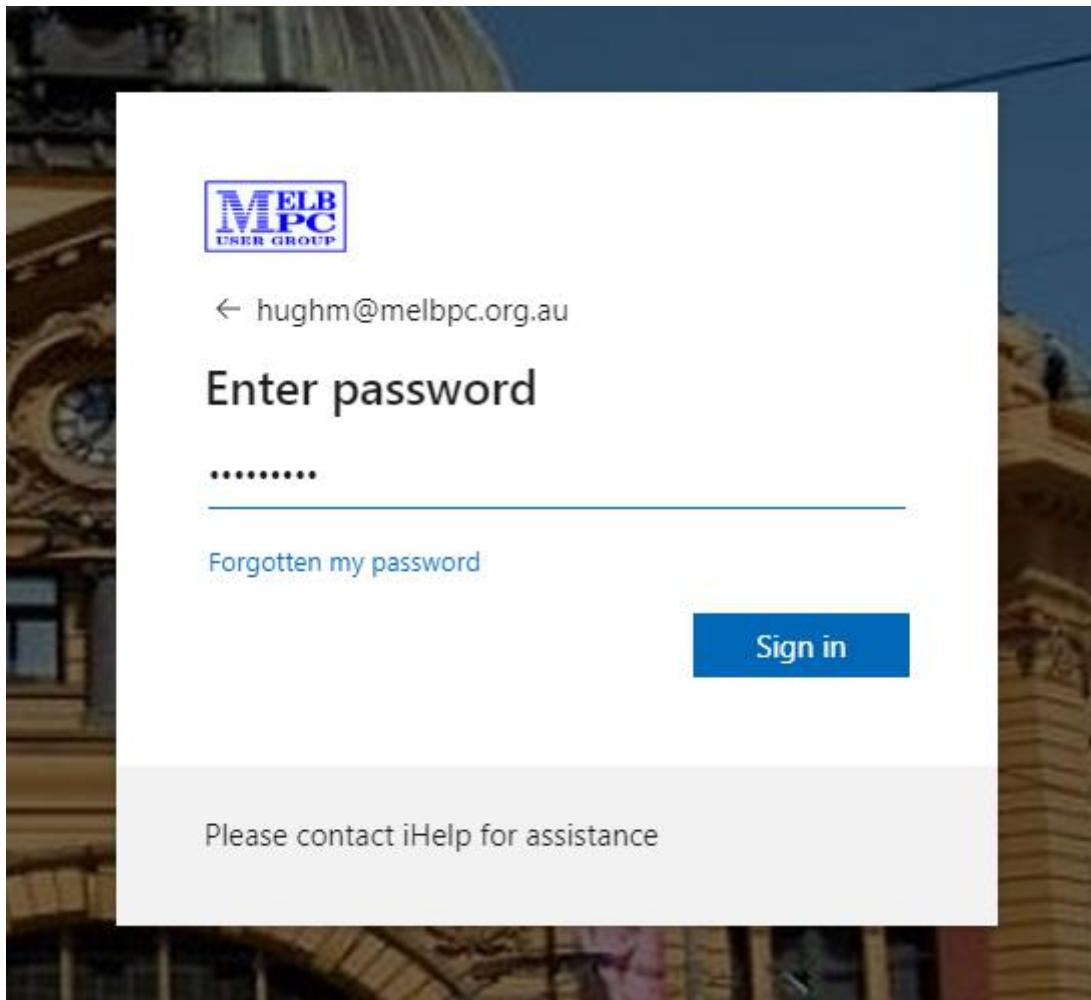
Note the picture of Flinders Street Station in the background and the Melbourne PC User Group logo. Enter your password in here (If you don't know your password or you've forgotten it, give the friendly iHelp team a call on (03) 9276 4088). Once you've entered your password click on the blue 'Sign in' button, and you'll be presented with a screen that looks like this:
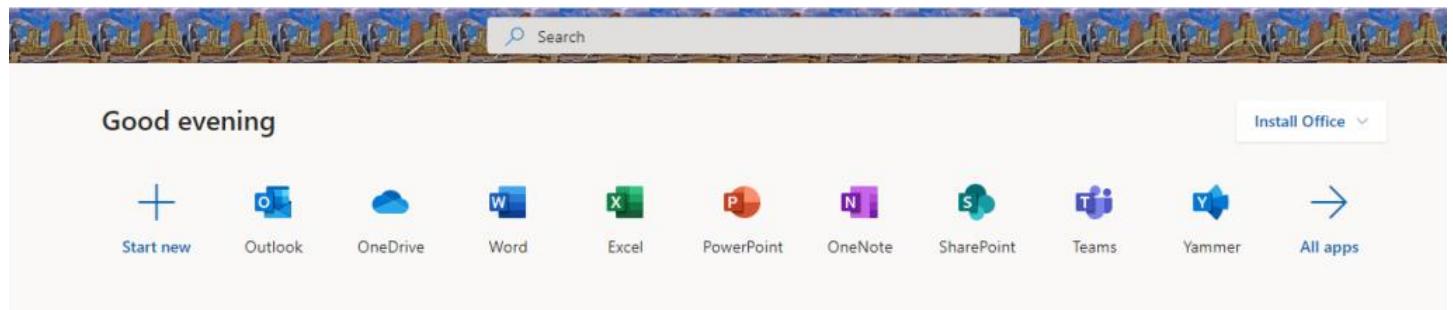
This gives you access to all the Melbourne PC User Group Office 365 applications but the key one here is Yammer, which is the second last icon in the row. Click on it and you'll be presented with a screen that has the following panel down the left-hand side:
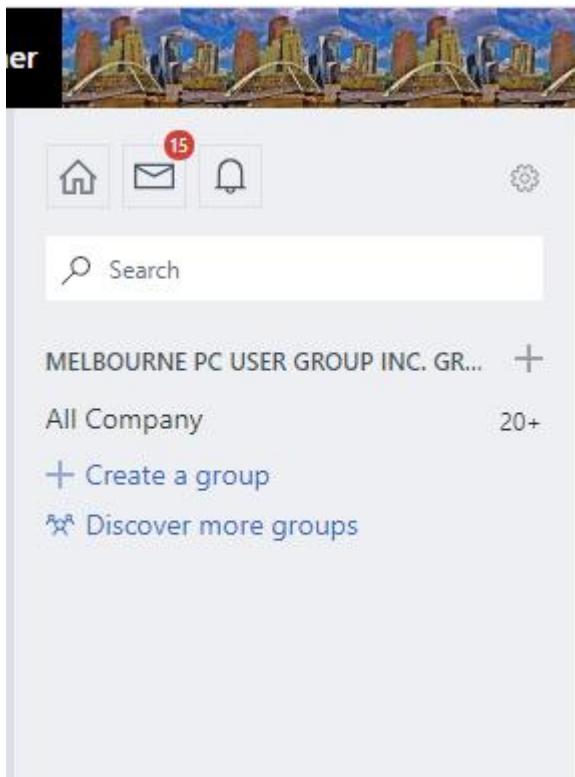
Click on 'Discover more groups' (third option down) and you'll be presented with the full complement of groups on offer in a page that looks like this:

On this page, you'll find groups dedicated to various aspects of computing, the NBN, Chit Chat, health matters, genealogy, photography and travel, amongst others. For the ones that look interesting to you, click on 'Join' and discover the conversations happening in them daily. Chit Chat is an especially fun forum to join and includes the weekly DOTW poll that you'll usually find included in the pages of PC Update.

There's a great community on Yammer and they'll help you with any computer problems you have in the true 'members helping members' style, provide you with a laugh, and also much poignant discussion at times as well.

Yammer Highlights March 2020

Coronavirus Discussion & Comments

Looking for toilet paper? So are the rest of us! But you've come to the right place to talk about it and anything else COVID-19 related.

John has been doing a very good job of scaring us with his modelling of the likely number of infections based on various infection rates – lowering it from 23% to 14% reduced likely infections by 90%, clearly showing how important social distancing and staying isolated at home as much as possible is so very important.

So please stay safe, keep your distance and wash your hands thoroughly and often.

<https://www.yammer.com/melbpc.org.au/#/Threads/show?threadId=602402352119808>

Windows 10

Carrying out a major update to Windows 10 on a system with minimal resources can be a significant problem due to the lack of drive space. Rob was concerned his notebook might have problems updating to the latest version (1909) as he only had a 30GB drive with 9.7GB free. Fortunately, Windows will prompt for external storage if it needs more space for the update so you can use a USB flash drive (16GB would be plenty).

As I've found out with my daughter's little laptop that also only has a 32GB drive, Windows still needs a certain amount of free space on the drive to run the update, even if you do use external storage. If you strike this problem you have to resort to creating a bootable installation USB and perform an upgrade, making sure you elect to leave your data and programs in place. It works but is a pain.

<https://www.yammer.com/melbpc.org.au/#/Threads/show?threadId=609115005632512>

About iHelp

Leighton West

We are the RACV of the Computer World

A unique free service to members that is one of the best reasons for anyone joining, even if you never use us "It's there if you need it". Access to iHelp is not just appreciated, but in many cases the sole reason for maintaining membership. The Kangaroo is not the only thing unique to Australia.

Some members ring us once a year, others once a week, there is no limit to how much support you can get. We are however not Gurus, but have lots of contacts and the full resources of the Club. Every member knows "something" about computers, therefore collectively we can solve any problem.

iHelp can be accessed by Phone, Email, Web form, or Live chat, most questions are resolved on the spot or within the day.
Our Website provides a comprehensive window into all MelbPC Services and includes many Q&A questions and answers, Website Search facilities, Club Contacts, and useful Web Links to recommended Products and Services.

We are available most days 10 am to 3 pm Weekdays, Holidays, Public Holidays, and often over the weekend. In fact, the only day when you probably won't get a response is Christmas day. Try us next time you have a computer problem!

For those interested or involved in giving support to members, we also maintain a public Microsoft Teams site. This includes iHelp, Home Visit, Yammer, SIG Leaders, or Office Volunteers who have some technical ability to help others. Members can add features and make private or group Phone calls, or Chat.

https://www.melbpc.org.au/ihelp

DOTW Winners March 2020

Roger Brown

DOTW (whatever that stands for) our weekly Yammer poll and light-hearted review of the sillier events of the week, continues – social isolation rules notwithstanding. Thanks to those who vote and also to the odd member who might "feature" – all in fun of course.

Last month's "winners" were:

The unthinking mob who took the bait – rushing out of supermarkets with trolleys piled high with enough loo paper and other supposed essentials to last for MONTHS! Meanwhile the financially disadvantaged, the elderly, and those with no immediate access to supermarkets, are greeted with empty shelves when seeking to purchase for their IMMEDIATE needs.

Krazy Kev (Martin) for a horrible Yammer thread started with ""Waiter, waiter, this egg is bad!" "Don't blame me, sir, I only laid the table." Dishonourable mentions to all other members who "contributed"!!

The dumb demolisher of a property adjoining Castle Wotten, who through total negligence, failed to discover the existence of a shared sewerage connection common to both properties and who ended up severing the connection to said Castle.

The Melbourne couple infected with COVID-19 while on a skiing holiday in the United States who have been the subject of repeated police complaints after they allegedly flouted advice to self-isolate and visited shops and a golf course on the Mornington Peninsula instead.

Book Reviews

Tim McQueen
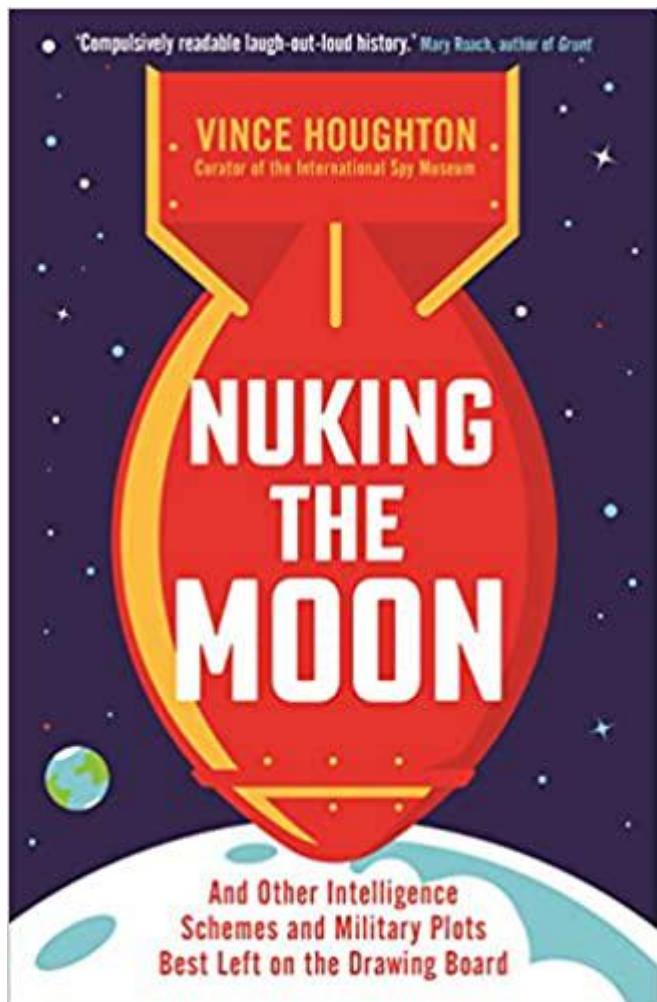
Nuking the moon

Vince Houghton

Profile Books 296 pages

This is probably not the usual type of book you'd expect to see referenced in PC Update. It's subtitled: "and other intelligence schemes and military plots best left on the drawing board". Vince Houghton is Director of the International Spy Museum, perfectly placed to hear about all kinds of attempted skulduggery.

I don't recall having heard about the US Army's plans to stage a nuclear explosion on the moon. This was back in 1958, when America was still obsessed with Sputnik and the USSR's apparent lead in space. Here was an opportunity to display their superiority in nuclear weaponry. Fortunately, the project never materialised.

The book covers a range of topics: using animals as weapons, the Bay of Pigs fiasco and associated attempts to assassinate Castro, Reagan's Star Wars schemes and a variety of other proposals for using nukes. It's an entertaining read, with some parts probably familiar. The lesson for those actively involved in computing: someone will come up with a really weird way of using every new technology, and attempt to implement it.
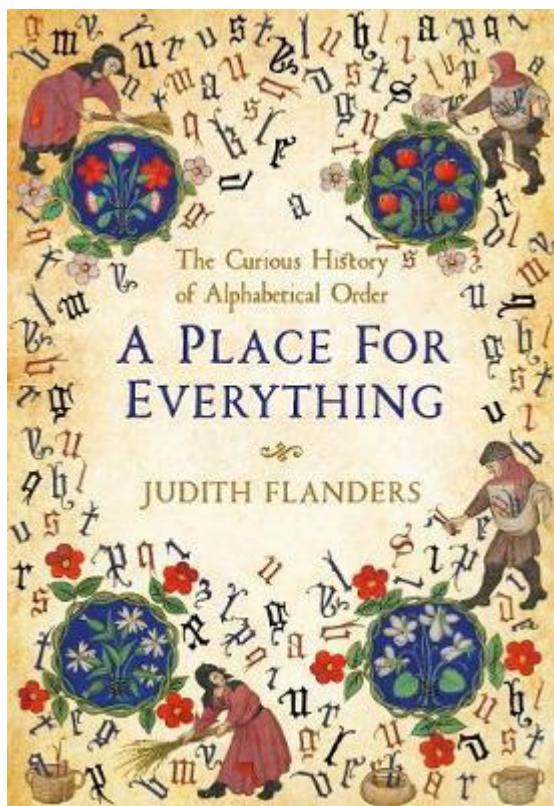
A place for everything – the curious history of alphabetical order.

Judith Flanders

Picador 342 pages.

We all have our biases and we can be quite unconscious of some. After reading this book I understand that my experience of computing is very STEM-oriented, but other disciplines have contributed to our technology. We are so used to the concept of alphabetical order that we just accept it and may not realise it only came into widespread use around the nineteenth century. Even in the late eighteenth-century students at Yale & Harvard were listed by the students' families social position and wealth, and whether their fathers had attended the same colleges.

Judith Flanders is an author of popular histories (and crime comics). Her first nine chapters are headed A to I, followed by Y (for Y2K). She traces the development of the alphabet from ancient times, then the copying of texts in monasteries during the dark ages. Modern usage echoes some medieval tropes: copyists would annotate texts so that readers could find interpretations on the same page; today we achieve similar purposes via hyperlinks.

In the days where one hundred books was a large collection librarians knew every book they had and exactly where it was kept. As government and enterprises developed there was increased requirement for

information retrieval which meant that data had to be organised. One order of classification was anything to do with the divine, followed by the secular. This is still visible in the Dewey Decimal system used in libraries.

The development of alphabetical order was piecemeal, initially by first letter only, then slowly moving to absolute order. Gutenberg's invention of the printing press led to an explosion in the number of volumes produced from something of the order of five million in the millennium before to some twenty million over the next fifty years.

The later profusion of mechanical typewriters and copying meant there was even more requirement for filing. Hanging files, box files and lever-arch files were developed with office equipment designed for them. This had a direct impact on the design of computer file systems.

Just as medieval libraries didn't require catalogues, early telephone services did not require directories. Initial services were point to point only. However once connections to multiple phones became available, and subscriber numbers increased, directories became ubiquitous. But they were not in strict alphabetical order; there were often separate government sections. People started to use and remember telephone numbers. Now we rarely need to remember numbers and the contacts lists on our smartphones can be tailored to our requirements.

A fascinating read, highly recommended.

Interesting Internet Finds

Steve Costello, SEFCUG

In the course of going through the more than 300 RSS feeds, I often run across things that I think might be of interest to other user group members. The following are some items I found interesting during the month of December 2019.

How To Clear Browser Cache In All Web Browsers

https://www.fossmint.com/clear-your-browser-cache/

There are times when the browser cache needs to be cleared. This post gives clear instructions on how to do it in Google Chrome, Firefox, Internet Explorer, Edge, Safari, and Opera.

Exercises For Computer Users And Office Workers – Nerd Fitness

https://www.thewindowsclub.com/exercises-for-computer-users

As a computer user, I sometimes forget to get enough exercise. If the same is true for you, check out this post for some quick and easy suggestions to keep fitter.

Do You Need A 4K HDMI Cable?

https://www.techhive.com/article/3330376/do-i-need-a-4k-hdmi-cable.html

Just get a 4K TV for the holidays? Check out this post before going out to spend lots of money on a special 4K HDMI cable.

5 Ways to Get In-Car Wi-Fi for Internet Access on the Go

https://www.makeuseof.com/tag/internet-car-wifi/

Some cars come with in-car wi-fi. If yours doesn't and you want everyone able to access to the internet, check out this post for some ideas.

How To Encrypt A Flash Drive Without Bitlocker

https://www.techtricksworld.com/how-to-encrypt-a-flash-drive-without-bitlocker/

If you want to encrypt a flash drive and don't have a version of Windows that includes Bitlocker, check out this post for some alternative methods.

USB Flash Drive vs. External HDD And SSD: Which Is Best For You?

https://www.maketecheasier.com/usb-flash-drive-vs-hdd-vs-ssd/

Are you confused about which of these you should be using? If so, check out this post that explains the advantages and disadvantages of each.

How to Make Gmail Your Default Windows 10 Email Client

https://www.techjunkie.com/gmail-default-windows-10-email-client/

I know I don't want Outlook to be my default email on Windows 10, so as soon as I saw this post, I followed the instructions and can now use my Gmail account.

The Wonders Of Wordpad – Cyn Mackley

https://cynmackley.com/2020/01/15/the-wonders-of-wordpad/

You don't have to go out and buy a word processing program or learn a whole office suite just to write simple documents if you have a Windows operating system. The Wordpad program is built right in. Cyn explains some of the basics in this post.

What Is Creative Commons & Explanation Of Each License

https://www.online-tech-tips.com/computer-tips/what-is-creative-commons-explanation-of-each-license/

Every once in a while I like to remind anyone who blogs, edits a newsletter, or wants to use information or photos, that there is a legal way to do so. There is a great amount of good information and images available for use under Creative Commons licensing. Check out this post to learn more.

How To Upgrade From Windows 7 To Linux

https://www.howtogeek.com/509508/how-to-upgrade-from-windows-7-to-linux/

With the last Windows 7 updates being January 14, 2020, there are probably some of you still wondering how to replace Windows 7. This post does a good job of showing how to upgrade to a Linux operating system. (Note: I ended up getting a new Windows 10 Home desktop, upgrading my Windows 7 Home laptop (4GB RAM) to Windows 10 Home, and setting up my old Windows 7 Home desktop (2GB RAM) as a dual boot Linux Mint 19.3 desktop to be able to still use some older Windows software, yet still be able to securely access the internet when necessary via the Mint O/S.)

The Best Antenna Set Up For Cord Cutters

https://thestreamingadvisor.com/the-best-antenna-set-up-for-cord-cutters/

There seems to be more and more interest in cutting the cord these days. If you are thinking about going with an antenna, you should check out this post first.

Is A Microsoft Office Subscription Worth It?

https://askleo.com/microsoft-office-subscription-worth/

If you have moved up to Windows 10 and thinking about Microsoft Office, check out this post from Leo Notenboom before making the final decision. Leo talks about cost factors in this post.

Review: Linux Mint 19.3

Cal Esneault, Former President and leader of many Open Source Workshops & SIGs, Cajun Clickers Computer Club

Linux Mint is a distribution based on Ubuntu LTS versions. The latest series is the Mint 19.x family (based on Ubuntu 18.04 LTS). There are three desktop choices: Cinnamon, Mate, and XFCE. Recently, Mint 19.3 was released. Below is a list of the 19.x series.

It is possible to upgrade directly to Mint 19.3 from any previous 19.x versions. These "in-place" upgrades do not affect personal files or bookmarks. As usual, only software maintained by Mint itself is changed for a "point release."

I was running Mint 19.2 (Cinnamon). As part of the normal updates, I received notice to refresh the update manager itself.

Linux Mint has focused on making recovery from any regressions during the upgrade as easy as possible. It is recommended that users precede upgrade with a "*Timeshift*" session for back-up and to read the installation notes. In this release, they go a step further by introducing the "*System Reports*" tool. It alerts users if they are missing a language package, a multimedia codec, etc. It also has a good system description and record of any system crashes (see below).

Celluloid, gnote, drawing, and *neofetch* were added to Linux Mint 19.3 as future defaults. For in-place upgrades, you have to do this manually (note: they are present in the iso download if you do a fresh install). Celluloid is a replacement for *Xplayer* (*Celluloid* is more efficient for playing movies on your system).

Gnote is a replacement for *Tomboy* (not much difference here). *Drawing* is *Gnome-Paint* renamed (a simple bit-map editing program).

Neofetch is a command line tool that can "fetch" all sorts of information about your system, from the Linux kernel version number to how long it's been running ("uptime"). See a short screenshot of *neofetch* below.

Mint appears to be backing-off from having so many in-house "Xapps." Mint 19.2 is a refined version of Linux Mint and is recommended for current users. Upgrade here is a minor event but look for major changes when shifting to Mint 20 next year.

Desktop vs Laptop

Dan Douglas, President, Space Coast PCUG, Florida

At a recent learning centre meeting, the topic of what was better to get, in my opinion, a desktop or a laptop?

We agreed to include various other devices in the category of 'laptop' – tablets, Chromebooks, netbooks, notebooks, etc. Let's take a look at the various factors that should influence your decision.

Performance – This used to be the biggest differentiator between laptop versus desktop decisions, but this is not true any longer. The modern CPU (Central Processing Unit) chip designs have greatly reduced the heat generated and thereby eliminated one of the biggest problems with portable devices; the need to cool down the CPU effectively in a limited space within the case. The latest Intel and AMD CPUs are available in basically the same speeds and formats across both desktop and laptop motherboards.

However, the smaller size of laptops does command a premium price over that of desktops due to higher manufacturing costs for the same performance, as a general rule. SSDs (Solid State Disks) are available for both and their performance will be similar in either PC.

Storage Capacity – This is the other major area that has dramatically changed. Desktops typically have had larger capacity hard drives for storage – a 3.5" width hard drive case is still the standard in desktops while laptops standardized on a 2.5" width form. Large capacity drives (1TB+) are cheaper and were only available in the desktop size until the last 2 years or so when SSDs became available at a competitive cost to traditional hard drives. When fitted into a desktop case, newer cases have drive bays sized for the 2.5" SSD case, while cheap brackets are available for fitting them into any 3.5" case opening.

The latest developments are to move away from both 2.5" and 3.5" sizes to a "stick" SSD. There are several sizes in use today; one of the most common is called m2. These SSDs clip into a slot directly on the motherboard, similar to how a memory stick would This saves significant space that would otherwise be used by the storage drive in either a desktop or a laptop case.

Currently, only traditional 3.5" drives have very large capacities available (4TB+), but as time goes by, SSDs will become cheaper and a much better alternative. Check out my journal article earlier this year where I compared the two for full details. Display – This is an area where desktops can be a better value for the flexibility to connect to whatever

size display you have. Whether it is a 4K UHD 75" panel or a 24" desk LCD panel, either will work on a desktop. Now, many laptops offer HDMI or other ports to connect to displays, but if the reason for the laptop is portability, then the size of the laptop screen is what you'll be using most of the time, typically 13" to 17". The larger the screen, the weight will also increase proportionally on a laptop.

Graphics – Without a doubt, desktops are better suited for gaming due to the flexibility to replace and upgrade the video card. Some laptops, such as those from Alienware, do offer several video card options to compete with the best desktop offerings, but these are limited and more costly. For non-gamers, the basic video in either laptops or desktops is sufficient 95% of the time.

In the December 2019 issue of Consumer Reports, there just happens to be an article about this very topic. They report that in a survey taken in 2009, about 72% of the households have a desktop versus the 52% reporting having a laptop. Jump forward to 2019 and the number is now reversed with more households reporting laptops than desktops in almost the same ratio – about 74% laptops and 52% desktops now. Check it out for their recommended models and other factors you may want to consider.

If you have suggestions for topics that you would like to see explained, please let me know!

Reproduced from December 2019 issue, The Space Coast Journal

Coronavirus: telcos are picking up where the NBN is failing

Mark A Gregory, *RMIT University*

Telecommunication providers are taking positive steps to meet consumers' demands in the wake of the COVID-19 pandemic. As a result, the National Broadband Network (NBN Co) is being urged to reduce its wholesale broadband charges for these providers.

Companies such as Telstra and Optus offer broadband plans over the NBN, purchasing broadband data from the NBN at wholesale prices, which they then distribute to customers. In this time of crisis, the NBN should slash its wholesale prices. This will enable providers to purchase the extra data needed to meet demand as the country adopts widespread social-distancing.

Several media outlets have covered how data usage over the NBN is expected to boom as more people self-isolate, and start working and studying from home.

Unfortunately, at a time when Australians are depending on the NBN for high speeds and reliable connections for telework and remote education, many people may be let down.

Expect strain

Communications representatives from [both](#) [sides](#) of government have acknowledged the virus's spread will lead to hordes of people becoming reliant on the web for work and study.

This will lead to increased online traffic, slower internet speeds and higher wholesale costs for providers serviced by the NBN, limiting the amount of extra data these providers can purchase.

On Monday the [federal government](#) reported the NBN had experienced a "modest increase of around 6% throughout the day and at peak times" in comparison to figures predating COVID-19's spread.

Looking forward, the network expects busy-hour traffic, typically between 6pm and 9pm, to [increase by up to 40%](#), in line with other countries' experiences. In Italy, data shared with NBN by [Telecom Italia](#) showed Italy's busy-hour traffic had increased by about 26%.

A second-rate system

In Australia, the Coalition government's 2013 decision to move to a copper-based multi-technology-mix NBN, instead of Labor's all-fibre network with fibre to the premises (FTTP), has seen Australia fall down the global broadband rankings. Fibre to the premises is when fibre-optic lines run from the nearest available node directly to a premises.

Currently, low-quality streaming over the NBN occurs for two reasons. Firstly, because of the NBN's high data charges for service providers, and also because of the second-rate multi-technology-mix infrastructure. And this will only worsen as more people adhere to social-distancing and isolation measures.

Entertainment and sport are often streamed over the NBN at a resolution of 576p rather than the high-definition 1080p or 4K. Frustrated viewers are left watching media at a quality similar to old analogue television, due to the NBN's use of obsolete, slow and unreliable technology since 2014, under the Coalition government.

Media streaming companies including [Foxtel](#) have also complained their poor streaming quality is a result of this.

With COVID-19 causing mass disruptions, Comcast-owned media and entertainment company NBCUniversal recently [announced](#) it will end the practice of delaying online film releases to streaming companies like Netflix for several months after the film's cinema release.

NBCUniversal said, in reference to social distancing and smaller audiences expected at cinemas: "Current circumstances have made it more challenging to view our films."

Unfortunately for Australians, even if we can get new movies over the NBN the same day they're released, we could be stuck with poor quality and congestion during peak times.

Our neighbours set an example

In New Zealand, an FTTP rollout has been progressing since 2012. Connections to Chorus [UFB broadband](#) (New Zealand's NBN equivalent) cost a flat monthly fee for service providers, don't incur a data usage charge and have no data usage limits.

This has allowed companies to quickly respond to the pandemic, and they have begun offering extra content free of charge. For instance, [Spark Sport](#) is providing its six sports channels and on-demand offerings at no charge for existing and new customers until May.

In a [statement](#), NBN Co chief executive Stephen Rue said the company was working with retailers to "do everything possible to optimise the NBN to support the expected increase in residential use".

On Tuesday, when asked if there would be cost subsidies for retailers or consumers, [Rue told the ABC](#) the NBN was working with retailers, to ensure they would be provided with "the capacity they need".

The NBN published a guide on [working from home](#) during the pandemic. It highlights the need for broadband consumers to purchase an NBN plan that offers the right speed necessary for their internet activities.

NBN, now's the time to show-up for Australians

While the NBN is set to benefit from the extra data usage during the pandemic, Telstra and Optus have taken a [positive step](#) by offering customers additional broadband data and internet access, free of charge.

During April, [Optus will provide an additional 20GB for postpaid mobile customers and 10GB for prepaid](#) customers. [Telstra has gone one step further to provide an extra 25GB for postpaid mobile customers](#), if they apply for it through [the Telstra 24×7 app](#).

Moreover, Telstra home broadband users will have unlimited data from this Thursday until April 30. Telstra will be paying NBN a potentially huge amount for this extra data deployment.

For the sake of the public, the NBN should reduce its wholesale data charges during this pandemic. It could look to move to a flat monthly access fee with no data usage charges, similar to the approach taken in New Zealand.

The good news is the NBN will probably eventually heed calls to action and lower these charges.

The network is already a lemon, and it's unlikely the NBN Co board will risk the public backlash it will receive if it's seen trying to shore up its weak bottom line at a time of national crisis.

[Mark A Gregory](#), Associate professor, *[RMIT University](#)*

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East SIG Report

Neil Muller

The March meeting opened with **Dave Botherway** conducting our usual Q&A segment

Q: What was the problem experienced with the recent Windows 10 update issued last week? (Early March)

A: I'm unaware what the problem was as the update that installed on all my computers worked fine. Less than 1% of early downloaders experienced problems with the update. Microsoft corrected and reissued the update within days of the initial release.

Q: I have a year old HP Envy laptop which has exhibited intermittent Blue Screen of Death (BSOD) error messages over the last few months. On occasions, I get multiple blue screens with different error messages. I keep rebooting until it comes good which so far has worked. I think HP replaced the motherboard but I'm still getting the odd blue screen error. It doesn't happen often enough to make me want to take serious action however, but is there anything you can suggest to help?

A: The fault will most likely occur at the most inappropriate time. As the machine is still under warranty, I'd suggest asking for a replacement.

Q: My desktop computer is about 5 years old and is running Windows 7. Yesterday it displayed a black screen which suggested I set SATA to AHCI (Advanced Host Controller Interface). However, before I could do anything it starts anyway. Is this problem with all Windows or just Windows 7?

A: I've seen that problem before and most likely occurs in Windows 7 & 10. As the black screen only lasts 2 seconds, I would just accept it as just an annoyance.

Q: This problem relates to a friend's computer that I spent a couple of hours working on recently and couldn't solve. The computer freezes and won't reboot. It only restarts when the power is turned off completely. I tried Google and scanning without success.

A: When you start getting those sorts of problems it could be related to the hard drive dying. Do a ScanDisk in Safe Mode and see if that solves the problem.

Q: I've found a few programs that will display the new picture format HEIC (High-Efficiency Image File Format), Gimp is one, another is a free HEIC viewer. I've downloaded a browser extension from the Microsoft Store and installed it. It seems to install correctly but I can't find it?

A: Have you tried adding the extension to a different browser, such as the new version of Edge to see if that works.

The following 2 questions from February's Q&A to **George Skarbek** were omitted from the February SIG report that appeared in PC Update.

Q: I'm running Windows 7 Ultimate on my desktop and I understood it would no longer be updated. However last night when I turned my desktop on, it updated as it had in the past. I was also able to update

Security Essentials. Will Win 7 still keep updating?

A: For Windows 7 there will be no new features, no add-ons and no improvements from February this year, but critical vulnerabilities <u>may</u> still be patched after that date.
Windows 10 is a far more secure operating system. However, if you need to run older programs that will only run under Windows 7, then I'd suggest running Windows 7 in a Virtual Machine. If your PC is fairly old, with limited resources and it's all you need for the work you do, I'd say stick with Windows 7. Antivirus vendors will still be updating their antivirus programs for Windows 7 and critical vulnerabilities may be patched. There are organisations such as the American Navy that pay Microsoft to update Windows 7 so it's secure, hence the reason for suggesting critical vulnerabilities may still be patched.

(Tech Eds: We do not endorse this advice, as Windows 7 is no longer a secure operating system, and it would be a risk for members to keep running it. An upgrade from Windows 7 to Windows 10 is still free from Microsoft, and would be the better option. Organisations such as the US Navy are receiving updates to Windows 7 because they are paying for it, and these updates will not be available to consumers).

Q: When I was running Windows 7 I was very happy with its calculator, but I haven't been able to find that calculator in Windows 10. How can I find the Windows 10 calculator? Can I copy the calculator from Windows 7 into Windows 10?

A: The calculator in Windows 10 can be found by selecting Search (the magnifier symbol on the taskbar) then selecting the calculator tab. The Windows 10 calculator has standard, scientific, programmer & date calculation calculators plus a very basic unit converter.
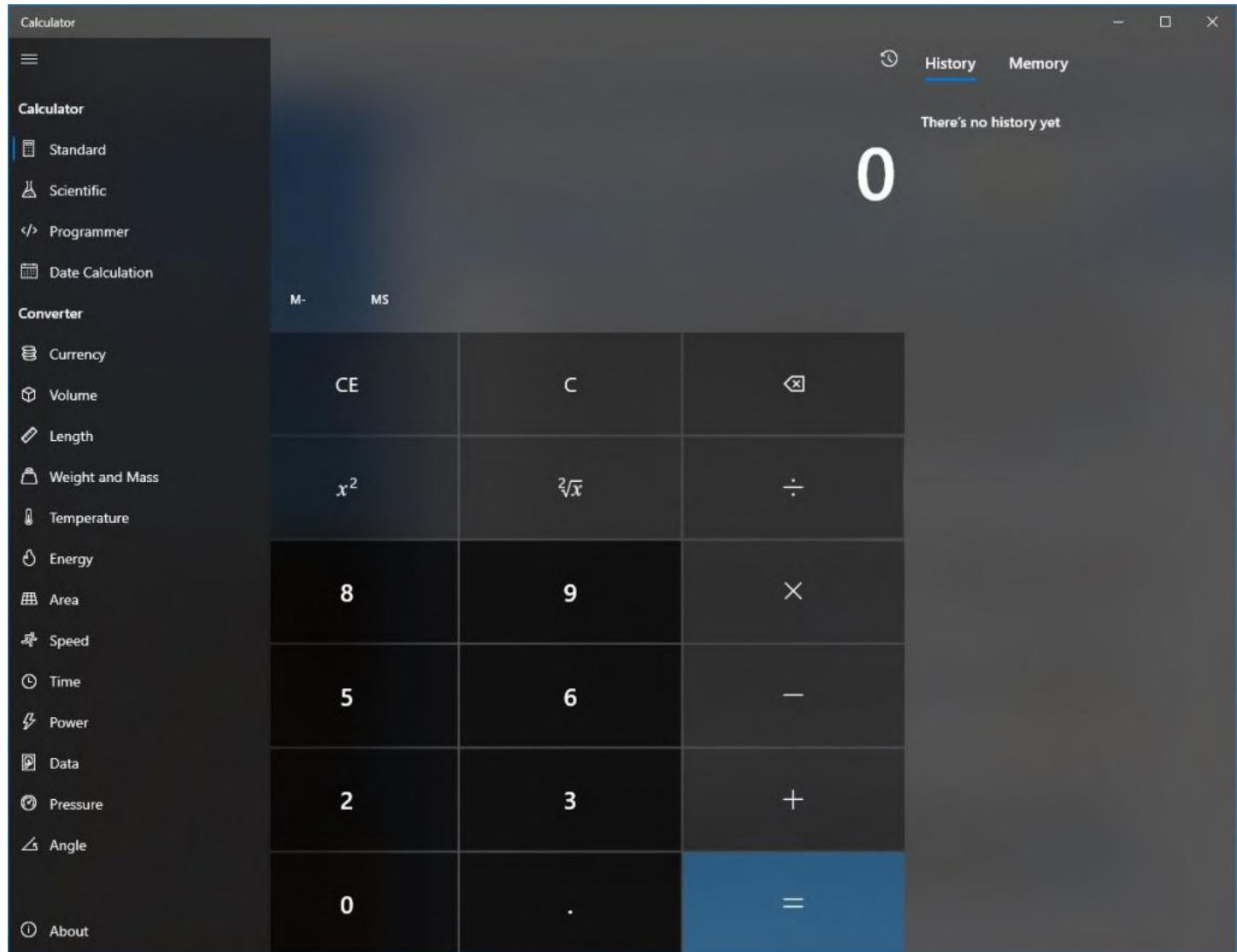
Figure 1 – Windows 10 calculator

[Neil Muller]

An internet search (copied below) shows how to transfer the Windows 7 calculator to Windows 10.

```
If you have a running Windows 7 installation you can just copy the following files:
c:\windows\system32\calc.exe
c:\windows\system32\en-US\calc.exe.mui
(the subfolder does depends on your localization e.g. 'de-DE' for Germany)
You can copy it to any place just recreate the subfolder and fill the mui file there so
that the hierarchy is recreated.
C:\path\to\your\folder
|
+– calc.exe
|
+– en-US
|
+– calc.exe.mui
```

When travelling overseas keeping your items secure is very important. **Trevor Hudson** recently travelled to America and displayed an anti-theft shoulder bag he purchased for his trip. Trevor outlined some of the bag's many security features such as a cut-proof shoulder strap incorporating a metal wire into the shoulder strap, woven mesh in the bag outer covering and lockable zips. The bag looks like a conventional shoulder bag as the first two features are completely invisible to the naked eye. The security bag was a Travelon brand costing $100 on special from Strandsbags at Knox City. After displaying the bag to members, Trevor playing a short YouTube video he prepared showing all features mentioned above including views of the bags inner compartments. The video is titled "Anti-theft Security Bag" and can be viewed on YouTube https://www.youtube.com/watch?v=0BXaa2TZj6Y.

Following that video, Trevor played another on China's Terracotta Warriors visit to the National Gallery of Victoria. That video can be found searching YouTube for "Terracotta Warriors visit Melbourne" or from the following URL, https://www.youtube.com/watch?v=RTaYnPgrqmg.

Figure 2 – Travelon Anti-theft Security Bag

Following Trevor's presentation, **Paul Woolard** outlined why Microsoft's free antivirus software Windows Defender is now a worthy choice for your computer antivirus needs. Windows Defender has improved significantly over the last few years and is now as good as or better than most of its competitors. Paul referred members to an article on the MakeTechEasier.com website "Is Windows Defender good enough in 2020?".

The MakeTechEasier article bases its findings on websites https://www.av-test.org/en/ and https://www.av-comparatives.org/, both of which rate antivirus software every month. The first site rates antivirus software in areas of protection, performance, and usability. Windows Defender ranked at or near the top in all categories. The second website looked at real-world testing based on 703 test cases. Along with Avira, Microsoft Defender was not compromised in all those 703 tests. The article concludes that Windows Defender is now much improved and a viable antivirus option in itself. Paul uses Microsoft Defender but admitted he runs Malwarebytes every 4 to 6 weeks for added peace of mind.

Figure 3 – Windows Defender

After a refreshment break, Stuart Bedford gave an informative presentation on "The Recycling Dilemma". The catalyst for the presentation was a Yammer post stating that banana leaves should be used for food packaging due to their bio degradable properties. With a background in food packaging, Stuart debunked the above premise. The process is small scale, expensive and the amount of banana leaves available could never meet the demand. Other similar natural materials could be used instead of banana leaves but they have the same disadvantages and could never replace plastics in the near future.

Stuart believes we must prevent plastics from entering the environment. There's nothing wrong with plastics, the problem is how they're handled and allowed to get out into the environment. We all need to improve our use of plastics, as we cannot turn the clock back to the 1950s to a time when plastics almost didn't exist.

Stuart maintains there's nothing wrong with plastics but we must:

- Reduce: –
  - Reduce unnecessary packaging such as the use of blister packs and food trays.
  - Supermarkets, electronic devices and toy packaging are major contributors of wasteful packaging.
  - PET containers, in particular, are solid in their construction and would take 100s of years to decompose in a landfill. As an example of wasteful packaging, Stuart displayed a PET container used for vitamin tablets. The container could have been reduced in size by half and still house the same quantity of tablets. The chance of this type of container being recycled is virtually nil.
- Recycle: –

- Plastic, aluminium & glass.
- Glass needs to be sorted into its colour
- It's impossible to have 100% recycled drink bottles as plastics degrade each time they are recycled. Therefore new bottles need a proportion of virgin plastic material,
- There are several varieties of PET plastic. In general, PET is a very good plastic for recycling. As the plastic caps on most bottles are made of a different plastic they should be removed when put in the recycle bin. Manual handling needed to remove caps means many bottles with caps will end up in a landfill.
- Reuse: –
  - Replacing a single-use product with a reusable one. Eg water bottle
  - Reusing a single-use product for another purpose rather than putting it into the recycling bin.
  - Why not buy an aluminium water bottle which can be used over and over again compared to buying water in plastic bottles?
  - Water drink bottles can be reused.
  - Plastic take away food containers can be reused for food storage etc.
  - Clear glass can readily be melted down and reused. Again colours need to be sorted
  - Some containers such as those used for machine washing liquids are of very solid construction and have the potential to be refilled 100's of times if that option was available.

There are two significant problems Stuart sees in the plastics debate. Firstly caused by countries with little or no pollution control and plagued with corruption. Corruption causes a significant portion of the pollution problem. Secondly poorer communities whose people are just living to survive have no interest in pollution control. Their priority is what they have to eat the next day. This problem can only be solved by tackling poverty in these countries. To highlight these points Stuart showed a video of the world's most polluted river, the Citarum River in Java. https://www.youtube.com/watch?v=AkSXB-lRAp0.

Figure 4 – Polluted Citarum River in Java

The recent recycling crisis in Victoria created when China refused to take our waste was not entirely the fault of SKM recycling. Stuart believes the State Government and the 30 councils using SKM are partly to blame due to a lack of oversight and an "out of sight", "out of mind" attitude. SKM didn't recycle anything, they took the recycling in, bundled it up in containers and shipped it off to China. Once shipping was stopped, there were no processes in place to handle the waste.

Figure 5 – SKM recycling Warehouse

With 60% of recycling going into landfill, governments have proposed a "National Container Deposit Scheme", with Victoria's scheme to commence in 2023. Potential problems are the size of deposit containers needed to store cans and plastic bottles. Large containers are needed as cans and bottles cannot be collapsed before being deposited. Glass will need to be sorted and plastics will need to be cleaned thus increasing water usage. Stuart can also see the rise of "bin divers" raiding street bins to collect the 10 cents deposit. The 4 bin scheme was another option councils are looking at to help make recycling more viable by reducing sorting.

Figure 6 – Future Victorian recycling

Members attending were asked whether paper coffee cups were better for the environment than foam cups. Most answered paper cups, but they were wrong. Due to the manufacturing process paper cups are almost impossible to recycle due to the waterproof layer needed to hold liquids. Paper cups are usually 2

layers, need bleached board, have a polythene liner, use ink and often use a plastic lid. Foam cups on the other hand are 90% air and can be recycled. The manufacturing process of paper cups is shown in the video https://www.youtube.com/watch?v=-mclkw3TZWU. The solution for coffee drinkers is to bring their own collapsible reusable coffee cups. The use of reusable cups is increasing.

Figure 7 – Paper coffee cups

As most recycling goes to landfill, an increase in infrastructure is needed to solve the recycling dilemma.

April Calendar

SIG & Other Meetings — Apr-2020

Latest version of this Calendar is at: https://www.melbpc.org.au/ (see Quick Links)
This version is: V1–updated–24-mar-2020

Sun	Mon	Tue	Wed	Thu	Fri	Sat
Legend SIG meeting at Melb PC HQ, Moorabbin. **Non-Moorabbin meeting.** Meeting Cancelled To be Confirmed Meeting Confirmed Changed Details See bottom of page	**Changes** Please advise changes to: calendar-admin@melbpc.org.au	Other SIG (Special Interest Group) information: https://www.melbpc.org.au/sigs/about/ Recent Changes: https://www.melbpc.org.au/sigs/about/recent-changes/	**1** **North East Genealogy SIG** *Heidelberg 10am - 12noon* MONTHLY MEETING *Melb PC HQ, Moorabbin* *7pm – 9:30pm* then Supper (WAFFLE) at Fong's 9:35pm	**2** **Sunbury Daytime SIG** *New Users 9:30am - 12noon*	**3** **Essendon SIG** *Main meeting Avondale Heights 9:30am - 12noon* **Multimedia Home Entertainment SIG** *Mount Waverley 10am - 12noon*	**4**
5 **Science & Tech Projects Group** *Moorabbin HQ 1pm - 5pm*	**6**	**7**	**8** Video Production – Sony SIG *Moorabbin HQ 10am - 12noon* **North East Daytime & Photography SIG** *Heidelberg 10am - 12noon* **Communications SIG** *Moorabbin HQ 7pm – 9:30pm* **Microcontroller SIG** *Moorabbin 7pm – 9:30pm*	**9** **Sunbury Daytime SIG** *Advanced 9:30am - 12noon* **East SIG** *Blackburn South 7:30pm - 9:30pm*	**10** *PUBLIC HOLIDAY* **Essendon SIG** *Open Forum Avondale Heights 9:30am - 12noon* **Hardware SIG** *Mount Waverley 10am - 12noon* **Casey SIG** *Beaconsfield 1pm - 3:30pm*	**11** Microcontroller Workshop SIG *Moorabbin HQ 12noon - 5pm* **Raspberry Pi – Moorabbin SIG** *2pm - 4pm*
12 *PUBLIC HOLIDAY* **East Workshop SIG** *Mount Waverley 10am – 12noon*	**13** *PUBLIC HOLIDAY* Access (database) and Excel SIG *Moorabbin HQ 6:30pm – 8:30pm*	**14** Investment Tools - WASINT SIG *Moorabbin HQ 10:30am - 12:30pm*	**15** **North East Android SIG** *Heidelberg 10am – 12noon*	**16** **Sunbury Daytime SIG** *Main Meeting 9:30am - 12noon* **Bayside SIG** *Brighton 10am - 12noon*	**17** **Essendon SIG** *Various topics. Avondale Heights 9:30am - 12noon* **Digital Images SIG** *Including Photoshop Mount Waverley 10am - 12noon*	**18** Windows Plus SIG *Moorabbin HQ 10am - 12noon*
19 **Beginners East (BEAST) SIG** *Vermont South 10am – 12noon* MACE (Atari Computers) SIG *Moorabbin HQ 10am - 2pm* **Genealogy East SIG** *Vermont South 12:30pm - 2:30pm* Science & Tech Projects Group *Moorabbin HQ 1pm - 5pm*	**20** **Mornington Peninsula SIG** *General inc Q&A Mornington 9:30am - 12noon –* *Family History Mornington 1:30pm - 4:30pm* **Northern Suburbs Linux SIG** *Watsonia 7:30pm – 9:30pm*	**21** Melb PC Committee *Moorabbin HQ 7pm*	**22** Video Production – Pinnacle SIG *Moorabbin HQ 10:00am – 12:30pm* In Recess – no meetings till further notice	**23** **Sunbury Daytime SIG** *Maintenance & Linux (Fourth & fifth Thu of month) 9:30am - 12noon*	**24** Video Production - Mt Waverley SIG *Mount Waverley 10am - 12noon* PC Update – Articles Deadline	**25** *PUBLIC HOLIDAY* Microcontroller Workshop SIG *Moorabbin HQ 12noon - 5pm*
26 **Website Design SIG** *Tutorials* *Moorabbin HQ 2pm - 4pm* *Troubleshooting* *Moorabbin HQ 4pm - 6pm*	**27**	**28**	**29** **Mornington Peninsula SIG** *Family History – Advanced DNA (LAST Wed of month) Mornington 2pm - 4pm* PC Update – Reports deadline	**30** **Sunbury Daytime SIG** *Maintenance & Linux (Fourth & fifth Thu of month) 9:30am - 12noon*	**Have A Question** **Post it on Yammer** Yammer: http://yammer.com/melbpc.org.au/	

Teleconference? Teleconferencing possibilities: you might be able to **"meet" remotely online from your home**. Check with meeting leader &/or see our guide here: https://melcc.org.au/online-meeting-platforms