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>PC Update
>Feb 2021

PHILIPS

Publishing Information _____	2
From The Editor February 2021 _____	3
From The President February 2021 _____	4
Your Committee For 2021 _____	6
Club News February 2021 _____	11
Monthly Meeting February 2021 _____	13
UEFI Configuration for Booting Live Media _____	15
Use keyboard commands to create screenshots in Win10 _____	21
If Google does pull its search engine out of Australia, there are alternatives _____	22
AI can now learn to manipulate human behaviour _____	25
Interesting Internet Finds _____	28
Book Review _____	29
East SIG Report December 2020 _____	30
Yammer Highlights January 2021 _____	37

Publishing Information



The newsletter of

Melbourne PC User Group

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Melbourne PC User Group Inc. is a member of the Association of Personal Computer User Groups

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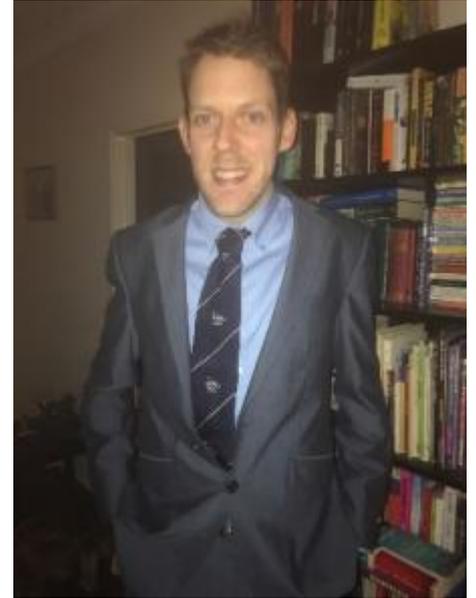
Online membership form

Responsibility for content in this newsletter lies with individually named authors

Please remember to always bring your membership card to meetings

SIG Listings and up to date calendar are available on our homepage

From The Editor February 2021



Hugh Macdonald

Hello and welcome to PC Update for another issue, and another year!

The club is slowly returning to 'normal'. Earlier this month we had our first in-person monthly meeting for nearly twelve months and some SIGs are now back meeting in person as well.

The club rooms at Moorabbin are undergoing change: after the training room was renovated last year, the Internet lounge is now being transformed.

The Annual General Meeting has brought some new additions to the committee. You'll find out about who they are as well as a few facts about them and what they hope to achieve for Melbourne PC User Group.

There's also some articles of interest, a book review, SIG reports and Yammer highlights.

Please enjoy the February 2021 edition of PC Update!

From The President February 2021



David Stonier-Gibson

2020 will of course always be remembered as the year of Covid 19. We are fortunate that in Australia the effects of the pandemic have been very much less harmful than in many other countries. Nevertheless, it has had an effect on us all, and on our club.

Despite the challenges and potential risks to the club, I am happy to say the negative consequences have been much less damaging than I feared this time last year. Whether that is a result of good judgment or good luck, I'll leave it for you to decide.

Some of the notable features or events of the year were, in club terms:

- We managed to maintain SIG meetings and monthly meetings using ZOOM and the like. It was a bit of a rocky start, but we did find a path that worked in most cases. Well done to everyone who helped make that happen;
- Running meetings on ZOOM enabled us to have guests and speakers in distant places. So we had high profile speakers from interstate. In the Microcontroller SIG we even had a guest presenter from Bangladesh;
- While there has been some loss in membership, it's been no more than normal attrition due to our aging demographics. We even acquired a few new members;
- There was a big surge in iHelp cases early in the pandemic, as members moved more to online pursuits;
- The Coder Dojo continued in an online format. This is a program that introduces children from 7 up to programming. It is run by volunteers from inside and outside the club, in effect sponsored by Melb PC as a community service. Thank you all;
- The project to revitalise the Moorabbin club rooms has continued, albeit at a much slower rate. The former training room is now the Maker Room. It is not complete, and will hopefully continue to evolve and morph with the times. At the moment it is set up with a well-equipped electronics workspace for those interested in Arduino, Raspberry Pi and related electronics projects. The lounge area is in the process of being transformed into a much more comfortable, friendly space, where members can hang out, have a coffee, socialise, watch the footy, and play games. With a donation of a collection of vintage home computer equipment we have started a "museum" project.

Kudos to all those member volunteers who have rolled up their shirt sleeves, donned their masks, and worked the tools;

- As I write this a number SIGs that I know of are experimenting with hybrid meetings, where people can attend in person or remotely. I believe that could be a very significant shift in how we function, even (or especially) after the Covid crisis. It will make more SIGs accessible to more members who might be constrained by distance. Remember: *Every member is entitled to attend every SIG meeting*, whether formally "registered" for a SIG or not. If any SIG feels they need some extra resources to implement hybrid meetings, please let me know. I am very much in favour of

supporting such initiatives.

- Then the big one: The transition of our email system to Google. This is a huge project that had to be undertaken to protect us from capricious policy changes by our former email host. It has been a much more involved and drawn out process than we anticipated. But to paraphrase John F. Kennedy: We choose to switch to Google in this year, not because it is easy, but because it has to be done.

Many people have contributed time, energy and dedication to the club's operations. I can't know everyone, let alone mention them all. But some of the people I have worked most closely with come to mind:

Kirsten Greed has stepped up to the task of organising the monthly meetings, not only relieving me of the task but also bringing her own style to the events.

Stephen Zuluaga has driven the process of transforming and upgrading the clubrooms as well as making a major contribution to the email migration.

John Swale, member number 16 and our Secretary. John is one of the people who has kept the club on track with both statutory and operational matters. He has also provided me with invaluable support in the formalities of running committee meetings, something for which I am not really cut out. John decided not to nominate for the Secretary position again this year, and as I write this the position remains unfilled.

Hugh Macdonald has made a substantial front line contribution to the hard work of the email transition, as well as ably editing PC Update.

Rob Brown has been active in a number of areas: The email transition, facility maintenance, and liaison with our CiviCRM support contractor

Harry Lewis makes invaluable contributions in iHelp, CiviCRM, and the email transition. He is also the go-to guy for hard data and statistics on club matters.

Peter McConnachie, our treasurer, who has minded the club finances in a difficult year.

The whole iHelp team: Dave Simpson (Convener), Leighton West (Secretary), Bert Alesich, Mike Allison, Kevin Dempster, Stewart Gruneklee, Harry Lewis, and Cedric Wyndham. This dedicated band of volunteers helped out one-third of the membership during 2020, with a total of 1,345 requests for computer help. It just shows how important iHelp still is to many members.

Our club has, of course, a large number of Special Interest Groups, or SIGs. Those SIGs provide information, assistance, socialisation and sharing of common interests across many topics and suburbs. They are held together by their individual conveners, to whom we all owe a debt of gratitude, but who are too many to mention individually. But you know who you are, and thank you.

And last but not least Malin Robertsson, the ever-obliging lady who runs the office. And office volunteers Steph Lancaster, Bill Moss, and Stewart Gruneklee.

A big thank you to all I have mentioned and those I have inadvertently missed.

Your Committee For 2021

Leading up to this month's Annual General Meeting, the committee for 2021 was installed. There were quite a number of familiar faces returning, but also a couple of new faces joining the committee for the first time. In order for you to get to know your committee members a little better, they were all asked a series of questions. Here are their responses:

David Stonier-Gibson (President)

What is your name?

David Stonier-Gibson

What is your role within the committee and within the club?

Member since 2013; Committee member 2018 & 2019; President 2020. Co-convener of Microcontroller Moorabbin SIG. Past editor of PC Update.

What is your profession/former profession?

Electronics engineer, microprocessor/microcontroller programmer, and business owner.

What was the first computer you owned?

Tandy (Radio Shack) TRS-80, bought in LA 1979.

What computer(s) do you currently own and use?

Desktop and laptop Windows computers, Android phone and tablet. Many Arduinos

If there's one thing you'd like to see Melbourne PC User Group achieve in 2021, what is it?

Develop a transformational vision, strategy, and plan to survive and thrive for another 36 years, while making a meaningful, positive contribution to our society.

Stephen Zuluaga (Vice President)

What is your name?

Stephen Zuluaga

What is your role within the committee and within the club?

Vice President. Focussing on IT, Facilities, Marketing and Coder Dojo

What is your profession/former profession?

IT Systems Engineer, TAFE Teacher

What was the first computer you owned?

Cyrix 6x86

What computer(s) do you currently own and use?

12 core Xeon workstation, an i7 laptop, and a garage laptop (one I don't mind getting a bit dirty or dusty).
All running Ubuntu or Lubuntu

If there's one thing you'd like to see Melbourne PC User Group achieve in 2021, what is it?

I'd like to see more activities involving young kids and young adults, things like Coder Dojo returning to the club premises, and some other raft of activities which would engage teenagers and young adults who need an outlet and perhaps some guidance for their interest in tech.

Aidan Kelly (Secretary)

What is your name?

Aidan Kelly

What is your role within the committee and within the club?

I'm new to the committee this year so I'll find plenty to do. I've been helping out with the design and renovation of the clubrooms.

What is your profession/former profession?

Construction Draftsman (Setout)

What was the first computer you owned?

A consumer Acer laptop with Windows Vista.

What computer(s) do you currently own and use?

MSI GE60 2QD Apache

If there's one thing you'd like to see Melbourne PC User Group achieve in 2021, what is it?

I'd like to see members get back into the club and make use of the maker room and other facilities.

Peter McConnachie (Treasurer)

What is your name?

Peter McConnachie

What is your role within the committee and within the club?

Club Treasurer

What is your profession/former profession?

Started in Accounting Dept with G.J.Coles in 1972, and moved into the IT Dept in 1980.

Ended career with Kmart after 46 years as Team Lead Data Warehousing (Oracle/Microstrategy BI) and moved the DW/BI Systems up to AWS.

What was the first computer you owned?

Commodore 64 & disk drive bought in 1982

What computer(s) do you currently own and use?

I7 home built desktop(s), mainly for Flight Sim. Lenovo I7 laptop for myself & Acer I7 for Trish in her Bookkeeping business.

If there's one thing you'd like to see Melbourne PC User Group achieve in 2021, what is it?

Get members back into the club and use/upgrade the facilities.

Robert Brown (Committee Member)

What is your name?

Robert Brown

What is your role within the committee and within the club?

Committee member since 2018 with some responsibility for Facilities at Moorabbin and SIG Coordination, member of the Team for the migration of emails to Google G Suite and member of Web Development group.

What is your profession/former profession?

Retired Mechanical Engineer with experience in Facilities Management and Industrial Manufacturing engineering and maintenance.

What was the first computer you owned?

A 286 PC with 640k RAM and 10MB HDD - eek! Upgraded from that as rapidly as I could afford to.

What computer(s) do you currently own and use?

Running Ubuntu Linux as my preferred OS for the past 10 years now on a fairly high end i7 laptop. Also regular user of Raspberry Pi 4 including Home Assistant automation system and various Arduinos and the like.

If there's one thing you'd like to see Melbourne PC User Group achieve in 2021, what is it?

All SIG Leaders comfortably using Events in CiviCRM for their SIG meetings. But also for the Club to be on a sustainable path for future growth of membership numbers.

Stewart Gruneklee (Committee Member)

What is your name?

Stewart Gruneklee

What is your role within the committee and within the club?

Joined Melb PC in 2001, Committee member 2012/13, 2015-2021, Treasurer 2018-2019, Office volunteer from 2016, iHelp volunteer from 2020, Transition Support Team volunteer, monthly meeting host on many occasions since 2013.

What is your profession/former profession?

Technical Manager for a fire protection & evacuation equipment supplier, now retired.

What was the first computer you owned?

Motorola 6800 D2 evaluation kit, IBM clone 286 running MS-DOS

What computer(s) do you currently own and use?

Win 10 Asus Laptop, Android Nokia Phone

If there's one thing you'd like to see Melbourne PC User Group achieve in 2021, what is it?

More intensive use of the Moorabbin premises for the benefit of members.

Harry Lewis (Committee Member)

What is your name?

Harry Lewis

What is your role within the committee and within the club?

Member since 2004; iHelp volunteer since 2011; Committee member most years since 2012; President 2013-2015. I support our email systems and am a member of the Transition Team migrating members' email to Google Workspace (formerly G Suite).

What is your profession/former profession?

Formerly university teacher of philosophy, now retired.

What was the first computer you owned?

Tandy (Radio Shack) TRS-80. (First use of computers was playing space wars in the basement of the Stanford maths dept c. 1964; later [1970+] using Amdahl V70 with VM/CMS & XEDIT as word-processor.)

What computer(s) do you currently own and use?

Desktop and laptop Windows computers, iPad and Android phone. Support two family members who are 100% Apple.

If there's one thing you'd like to see Melbourne PC User Group achieve in 2021, what is it?

To maintain its membership numbers by attracting new classes of members.

Hugh Macdonald (Committee Member)

What is your name?

Hugh Macdonald

What is your role within the committee and within the club?

I've been a general committee member since shortly after joining the club in 2018. I've been the editor of PC Update since September 2019, I've been part of the Coder Dojo team since February 2020 and I've been on the Office 365 to G Suite transition team since April 2020.

What is your profession/former profession?

I'm an IT consultant and a sessional university lecturer and tutor.

What was the first computer you owned?

My first computer was a 486 purchased in about 1997. I think it had 8mb RAM and a 500mb hard drive and ran Windows 95 OSR2.

What computer(s) do you currently own and use?

I have an Intel NUC based desktop PC and a number of laptops that run Windows and Ubuntu. I also own a MacBook Pro. In addition I have an iPhone and an iPad plus a whole lot of different smart home devices.

If there's one thing you'd like to see Melbourne PC User Group achieve in 2021, what is it?

I'd like to see the Moorabbin club rooms become a really vibrant place again (after Covid) that is in constant use. As part of this I'd like to see the club host an event each month dedicated to a topic like 3d printing, photography, videography etc.

Other Committee Members

Peter Boin and Paul Hattam are also on the committee this year. Peter played a big role in developing the QR code reader used for scanning into meetings. Paul has been the main educational leader for Coder Dojo and was instrumental in building that up throughout 2020.

Club News February 2021

Hugh Macdonald

Upgrades to the AV system at Moorabbin

Our Moorabbin headquarters hosted its first in-person monthly meeting since February 2020 on Wednesday 2 February, when the combined February monthly meeting and AGM was held. Given the success of the online monthly meetings over the previous six months, where attendances have been averaging about 100, it's been clear that the online format is popular. Therefore while at the moment it isn't possible to have more than about 20 members in attendance due to social distancing, going forward the club wants to be able to support as many members attending remotely as possible.

So over the weekend of January 23 and 24 2021, Chris Hayes, Sean Clarke and Rob Brown were instrumental in performing some upgrades to the AV system at Moorabbin to allow this to take place. Technically this involved adding a USB capture card to the Bio Box PC to enable it to output the video content at Moorabbin to the Zoom meeting and running some cabling in the ceiling above the Borrett Room and repositioning a video camera to provide an audience shot of Moorabbin for those members on Zoom to see.

This was all done successfully and the hybrid approach of the meeting on the night worked very well.

Happy Retirement to John Swale

The Annual General Meeting marked the end of John Swale's time serving on the committee, which in this incarnation began in November 2016. There was an earlier period where John served as well. As a token of the club's appreciation to John for all the work he has put in over nearly four and a half years, Malin Robertsson presented him with a gift.



The Room formerly known as the Internet Lounge

The Internet Lounge is soon to be known as just The Lounge. Thanks to a magnificent effort from Stephen Zuluaga, Aiden Kelly, Peter Boin, Aavon Fernando and other members, there are now windows looking out onto the atrium, multi-purpose benches that can be used for catch ups, projects or personal work. There is also pendant style power plugs for powering devices and tools, and plenty of network points as well. There is more to be done, but the progress so far is impressive.



Monthly Meeting February 2021

The February 2021 Monthly Meeting and Annual General Meeting was held online on Wednesday 3rd February 2021, with over 75 members in attendance. This was the program for the evening:

Guest Assoc. Professor Nathan Lawrentschuk MB, BS, PhD, FRACS (Urology)

Topic: Modern Technology in Cancer Research and Treatment



Associate Professor Nathan Lawrentschuk MB, BS, PhD, FRACS (Urology)

Assoc. Professor Nathan Lawrentschuk MB, BS, PhD, FRACS (Urology) is a Urological Surgeon and Urologic Oncologist with appointments at the University of Melbourne, Department of Surgery, Peter MacCallum Cancer Centre and Olivia Newton-John Cancer and Wellness Centre at the Austin Hospital, Melbourne.

Nathan is the Director of the EJ Whitten Prostate Cancer Research Centre at Epworth Hospital in Melbourne. He completed a PhD in kidney cancer as well as two additional years of training in robotic, laparoscopic and open cancer surgery at the University of Toronto, Canada at Princess Margaret Hospital, the world's 5th largest cancer centre obtaining a Society of Urologic Oncology Fellowship.

Nathan has a special interest in cancer high-risk surgery of the prostate, kidney, bladder and testis as well as being comfortable with active surveillance of many cancers where appropriate. In addition to his additional specialised qualifications, He has published over 400 peer reviewed papers and book chapters. He is an Associate Editor of the BJU International and the World Journal of Urology editor of its USANZ Supplements whilst he serves on multiple journal editorial boards and speaks at multiple international conferences.

New meeting segment: iHelp Online

In a similar vein to the Q&A segment that ran for many years at Moorabbin face to face monthly meetings, a member of the iHelp team will join the meeting each month to answer your technical questions.

This month it is Mike Allison.

You are invited to submit your questions to iHelp for responses during the meeting. Please send your questions by email to: ihelp-questions@melbpc.org.au to arrive by 6pm on Wednesday, 3 February.

Meeting Agenda

7.00pm sharp: Meeting opens. Host is Peter Bacon.

7.00 - 7.30pm: iHelp Online: Mike Allison and iHelp Team.

7.30 - 8.00pm: Annual General Meeting

8.00pm: Guest speaker: Associate Professor Nathan Lawrentschuk

Q & A with Bert Alesich.

9.00pm (approx): Close.

After the meeting: Informal iHelp discussion continued on an adhoc basis.

If you missed out the first time and would like to view any of these presentations, you can do so at <http://services.melbpc.org.au/videos/>

The username is videos and the password is drum286.

UEFI Configuration for Booting Live Media

Dick Maybach, Brookdale Computer User Group

In modern PCs the boot process is controlled by a Unified Extended Firmware Interface (UEFI), that has replaced the old Basic Input-Output System (BIOS), see https://en.wikipedia.org/wiki/Unified_Extensible_Firmware_Interface. Most users, who purchase a machine with Windows installed, can ignore the change, but if you wish to change its configuration you will have to be aware of its differences. In particular, if you wish to enable booting from a live USB device you will want to:

- require a password to access the PC,
- allow booting an alternate operating system from a live memory stick or DVD, and
- allow other operating systems than Windows.

The first challenge is to access the configuration utility, which requires tapping keys during the boot process. (You will have to be quick.) The details vary with the manufacturer, but some common ones are:

- ASUS PCs: <F2>,
- ASUS Motherboards: <F2> or ,
- Acer: <F2> or ,
- Dell: <F2> or <F12>,
- Gigabyte/Aorus: <F2> or ,
- HP: <F10>,
- Lenovo Laptops: <F2> or <Fn> + <F2>,
- Lenovo Desktops: <F1>,
- Lenovo ThinkPads: <ENTER> then <F1>.
- Samsung: <F2>, and
- Toshiba: <F2>.

Check your documentation for others. Windows 10 users can also reach their UEFI configuration through the Advanced Start Menu.

The storage area available to a BIOS was limited, which meant that configuring one was relatively simple, but this restriction was eliminated for a UEFI. As a result, manufacturers have added numerous “features” to differentiate their products from the competition. For example, I have two nearly identical Dell laptops, the older using a BIOS (with five setup screens) and the newer using a UEFI (with nearly 70). The major problem with the latter is finding what is important to you.

You can improve your PC’s security by enabling passwords; however, these aren’t effective against a knowledgeable attacker, as they can be disabled by opening the case and manipulating a switch or jumper. There are two passwords, “system” allows the boot process to proceed and “administrator” allows changing the UEFI configuration. You should always enable an administrator password to prevent someone from enabling booting from your USB port, which would allow them to boot a live medium and access your disk. For a similar reason, if you’ve enabled USB booting yourself, prevent someone else from

doing so by setting a system password.

Figure 1 shows the opening UEFI configuration screen on my Dell laptop, which displays its table of contents.

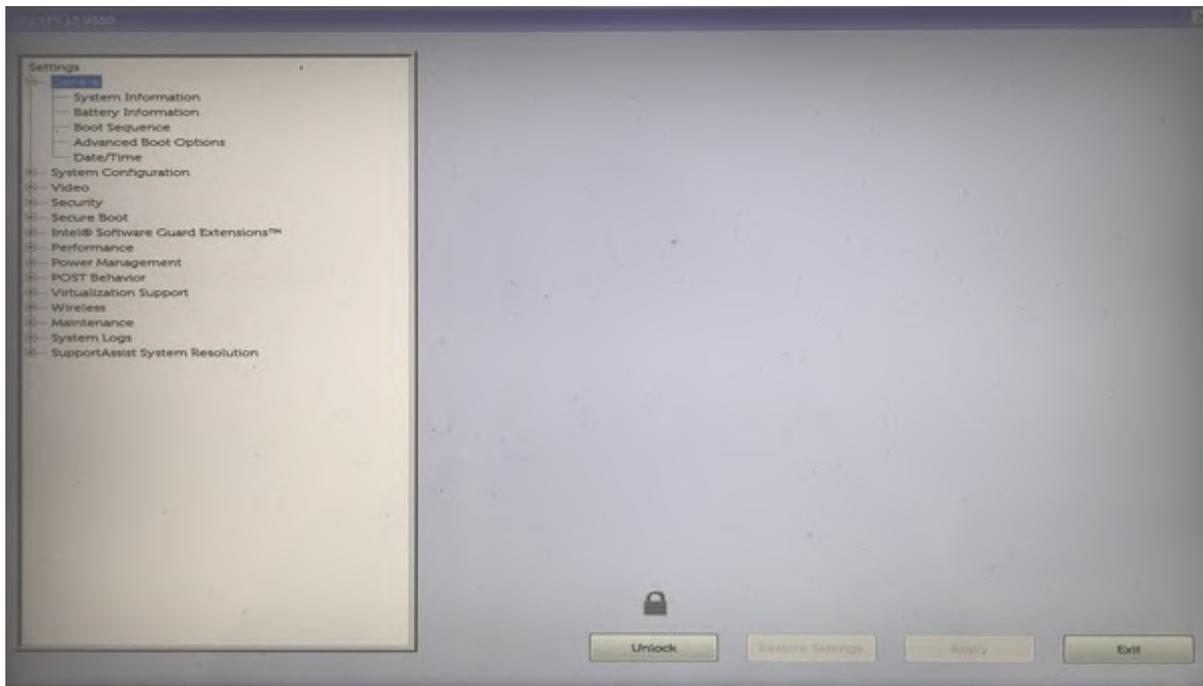


Figure 1. UEFI First Configuration Screen.

Note the Unlock button at the bottom. Select this and enter your administration password, assuming you've set one, to make changes.

Most PCs require a keypress at the start of the boot process to enable booting from a USB port (assuming of course you've enabled it). Here are some common ones.

- Acer: <Esc> or <F9> or <F12>
- Asus: <Esc> or <F8>
- Dell: <F12>
- Fujitsu: <F12>
- Gigabyte: <F12>
- HP: <Esc> or <F9>
- Intel: <F10>
- Lenovo: <F12>
- Samsung: <Esc>
- Toshiba: <F12>

Check your documentation for others.

To enable booting from a USB device you will make these changes.

- Disable secure boot.
- Set the boot sequence.
- Enable booting from legacy ROMs.
- Enable USB boot support.
- Disable fast boot.

Record its settings before you change anything on a screen (taking a cell-phone photo is a convenient way to do this). Some settings will result in your PC being unable to boot (ask me how I know), but this isn't a problem if you can undo your last change. If all else fails, most UEFIs have a way to restore the factory settings. On my Dell, it's on the screen of Figure 1 as the (grayed out) button at the right of Unlock. It is enabled by unlocking the UEFI configuration.

Secure boot prevents booting from any operating system that doesn't have a Microsoft certificate, which few OSes other than Windows have. You must disable this if you want to run Linux, but it is a security feature, and you may wish to enable it when you go back to Windows. Figure 2 shows the appropriate screen on my Dell, which follows the security section.

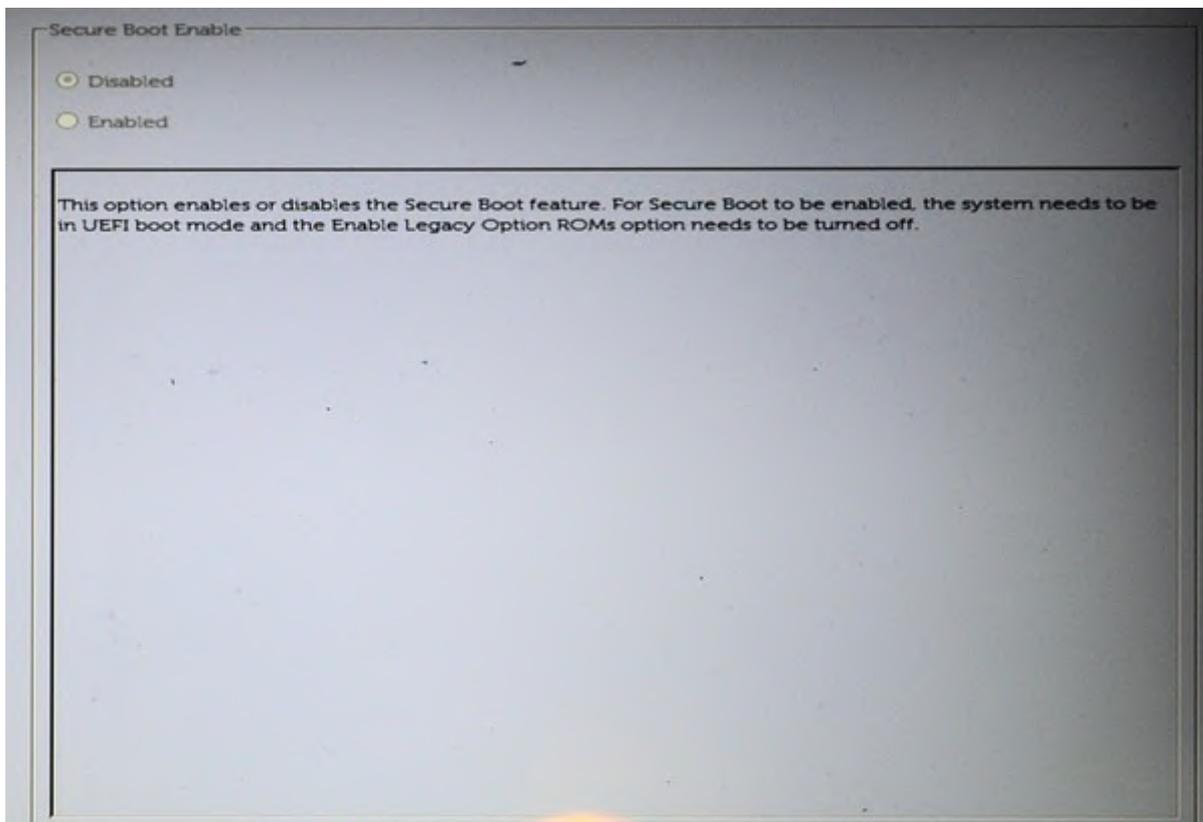


Figure 2. Secure Boot Screen.

Set the boot sequence to include USB devices, Figure 3.

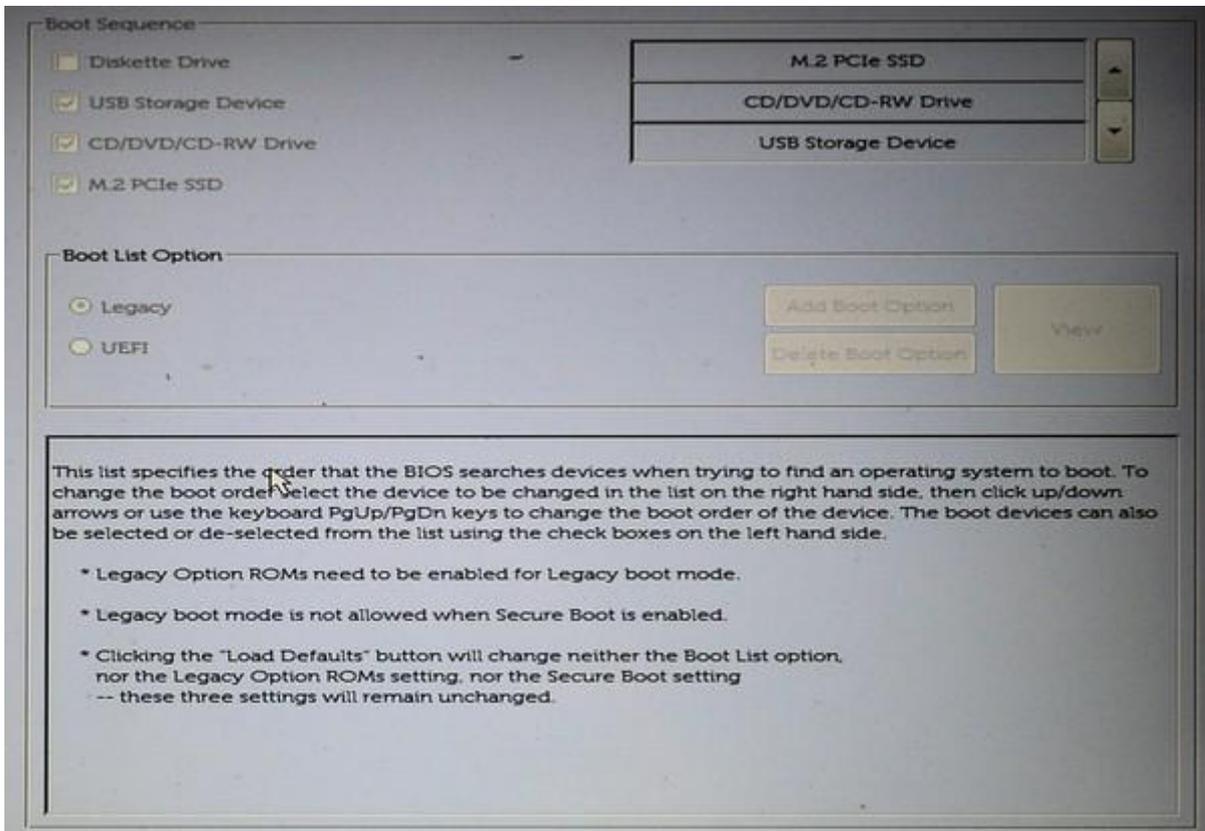


Figure 3. Boot Sequence.

Following the advice on Figure 3, enable legacy option ROMs, Figure 4.

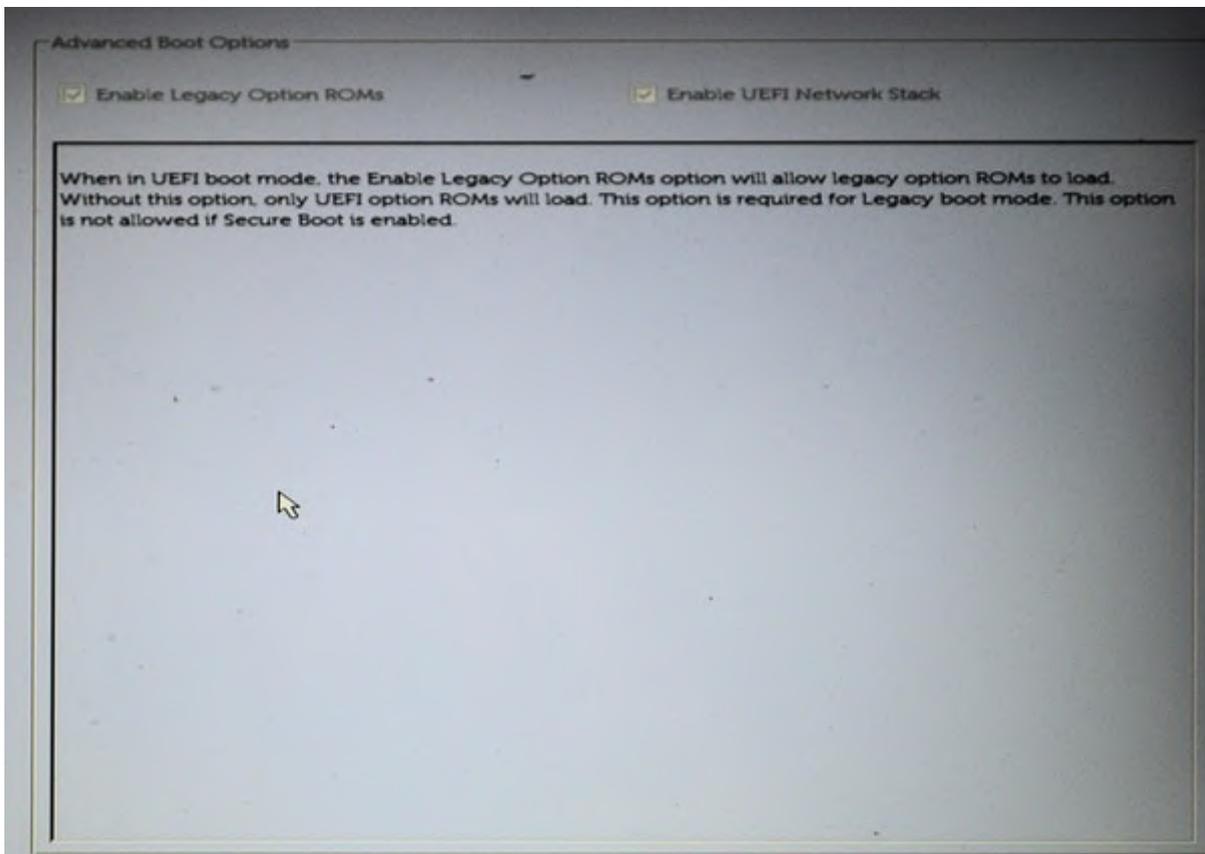


Figure 4. Enable Legacy Option ROMs.

Also enable USB boot support, Figure 5.

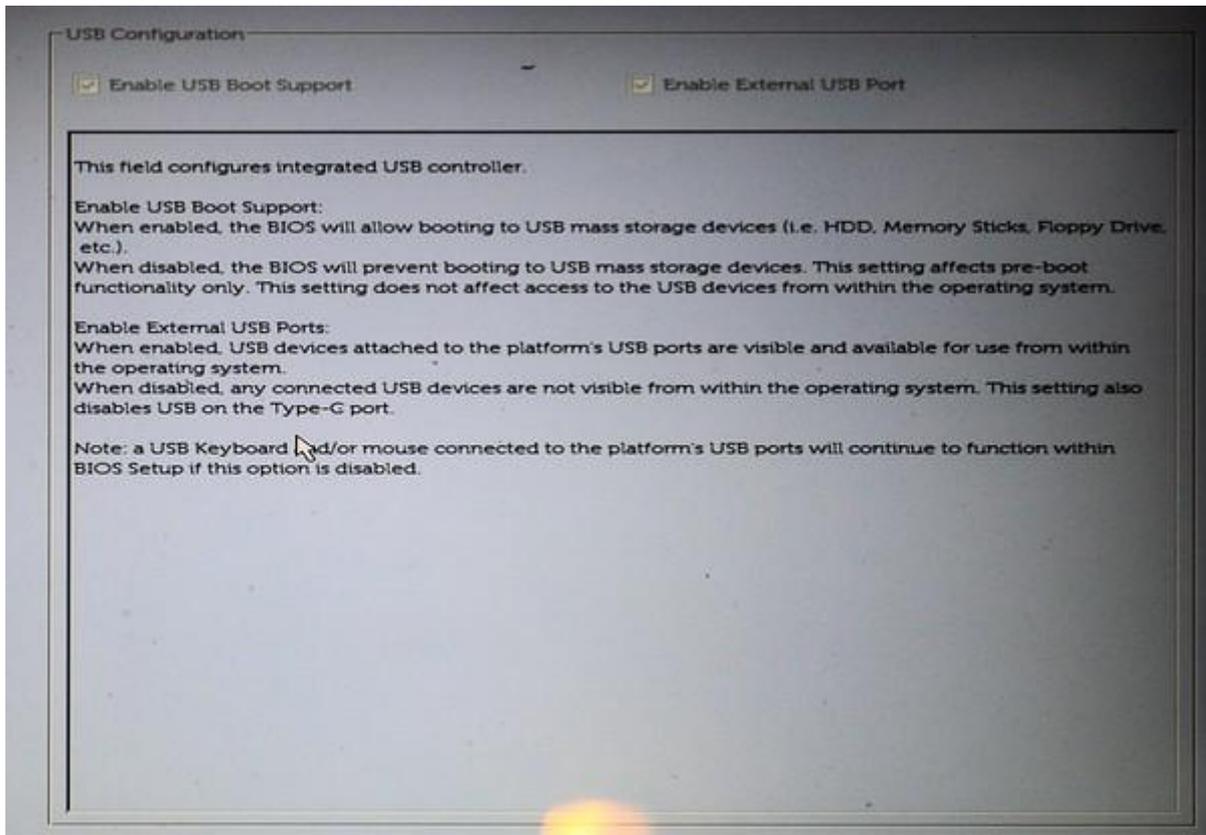


Figure 5. USB Boot Support.

Finally, disable fast boot support, Figure 6, as this is compatible only with recent versions of Windows.

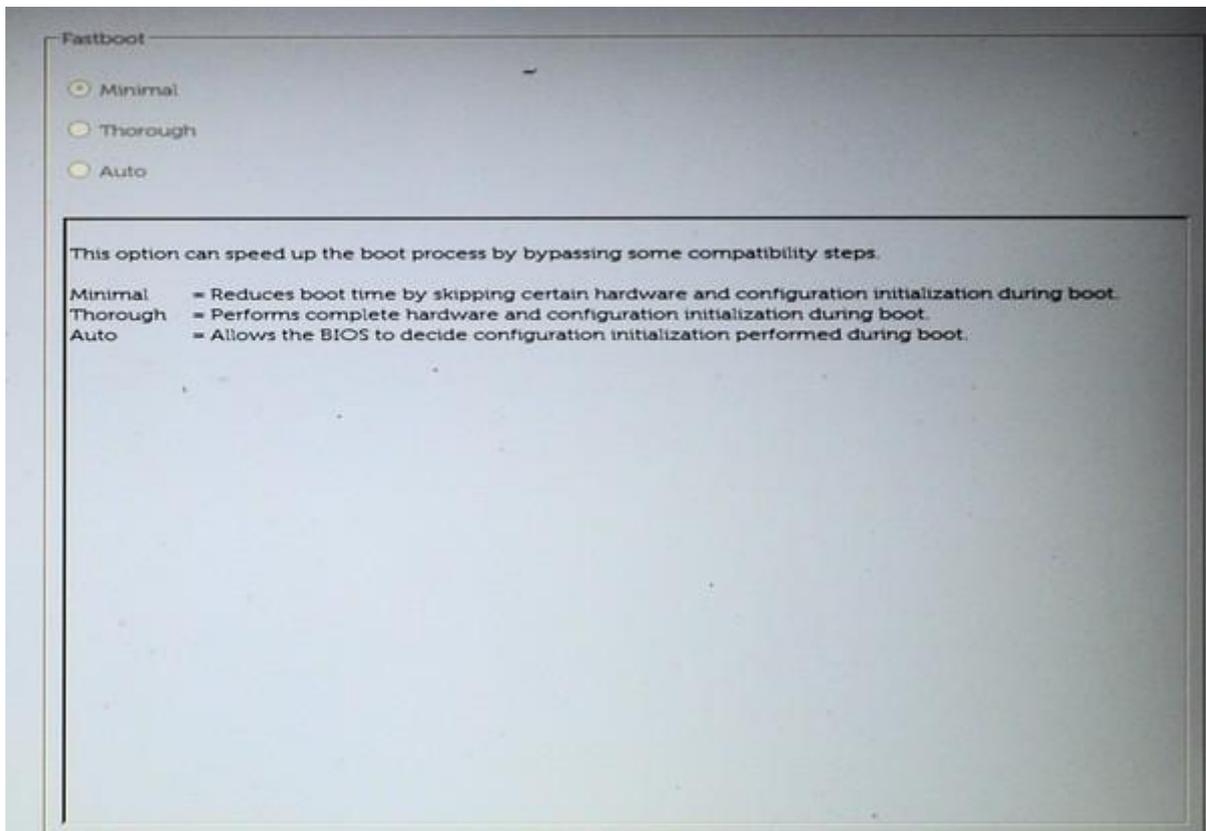


Figure 6. Disable Fast Boot.

Although I've used Dell as an example, the UEFI configuration on your PC is probably similar. Explore carefully, read the help text, and be sure you can undo your changes. Even if you don't make changes, exploring your UEFI configuration will tell you much about your PC.

Use keyboard commands to create screenshots in Win10

John Stampfel, President, Brookdale Computer Users Group

I learn something new every day. To someone's question "In Windows 7 (or 8 or 10), is there a simple way to press "print screen," and then press just one more key (on the

keyboard) to have the image automatically stored in a .jpg, file with an auto-generated filename?"

I learned from the answer posted on Quora.com

by Pauli Vaara:

"Windows 10 has it built-in. Hold down the Windows key while pressing PrintScreen, and the screenshot will be stored in your user account's Pictures > Screenshots folder in .png format, which keeps the original quality, unlike .jpg, which 'mushes' everything more or less."

The modifiers (holding down ALT, or Shift, or Control) while doing this don't seem to have the same effect as without the Windows key. They used to let you select a section of the screen or the active window. Holding down Windows-ALTPrtScrn will capture the active window only and save it in your user account's Video/Captures folder as a .png.

I used to use Windows-Shift-S to bring up the, also built-in, Windows 10 snipping tool. That allows selecting the area to be snipped. That saves the snip to the clipboard. With notifications turned on, it allows you to click and edit and share, but it brings up the Photos app. Maybe that is sometimes useful. One can annotate, modify, save, or "share" (send to email.) Sharing here in Photos also includes, in Windows 10, the ability to share directly to "nearby" computers which also have the feature "share with nearby computers" turned on. The other computer must accept the share (like AirDrop on iPhones.)

Need a screenshot of something while in Word, Excel, or PowerPoint on Windows 10? That is now built into those programs. Check the Insert menu. So, more than one way to skin a cat.

Reproduced with permission from the August 2020 issue of BUG Bytes.

If Google does pull its search engine out of Australia, there are alternatives

Gianluca Demartini, *The University of Queensland*

The Australian government's push to make Google pay news organisations for linking to their content has seen the search giant threaten to pull out of Australia.

Google Australia's managing director Mel Silva said if the government's proposal goes ahead, "we would have no real choice but to stop making Google Search available in Australia".

Prime Minister Scott Morrison pushed back saying he won't respond to "threats". Even the Council of Small Business Organisations Australia says Google needs "strong and stringent" regulation because of its monopoly on searching the web.

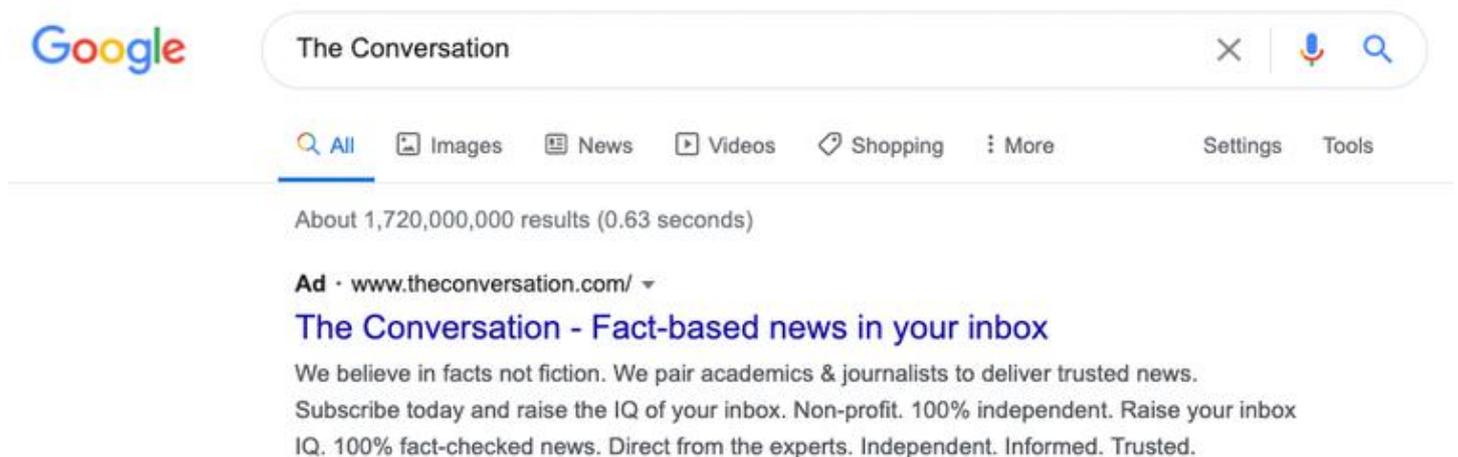
What if Google pulls out?

Google's proposal to make Google Search unavailable in Australia means we would need to search the web using other systems and tools. If this really happens, we could no longer go to google.com and google.com.au to search the web.

It is important to note that Google is not just web search. Google's parent company Alphabet Inc also runs key web portals such as YouTube, and productivity tools such as Gmail, Google Calendar, Google Docs and Google Maps (which actually started in Australia). Those services are not going to be removed from the Australian market, even if web search does get pulled out.

Online advertising is another sector in which Google is the market leader and where it makes money. Pulling Google web search out from Australia does not mean businesses would no longer be able to advertise using Google's services.

But with no Google Search here, those adverts would no longer appear ahead of any other search results and be visited by Australian users.



Google Search places paid advertising ahead of any search results.
Google.com/screenshot

Businesses would still be able to put their adverts on other Australian websites that use the Google Ads service.

The issue with this scenario is that Google's key competitive advantage is the ability to access data from people using its search services. Pulling web search out from the Australian market would mean Google missing out on that data from people in Australia.

The alternatives to Google

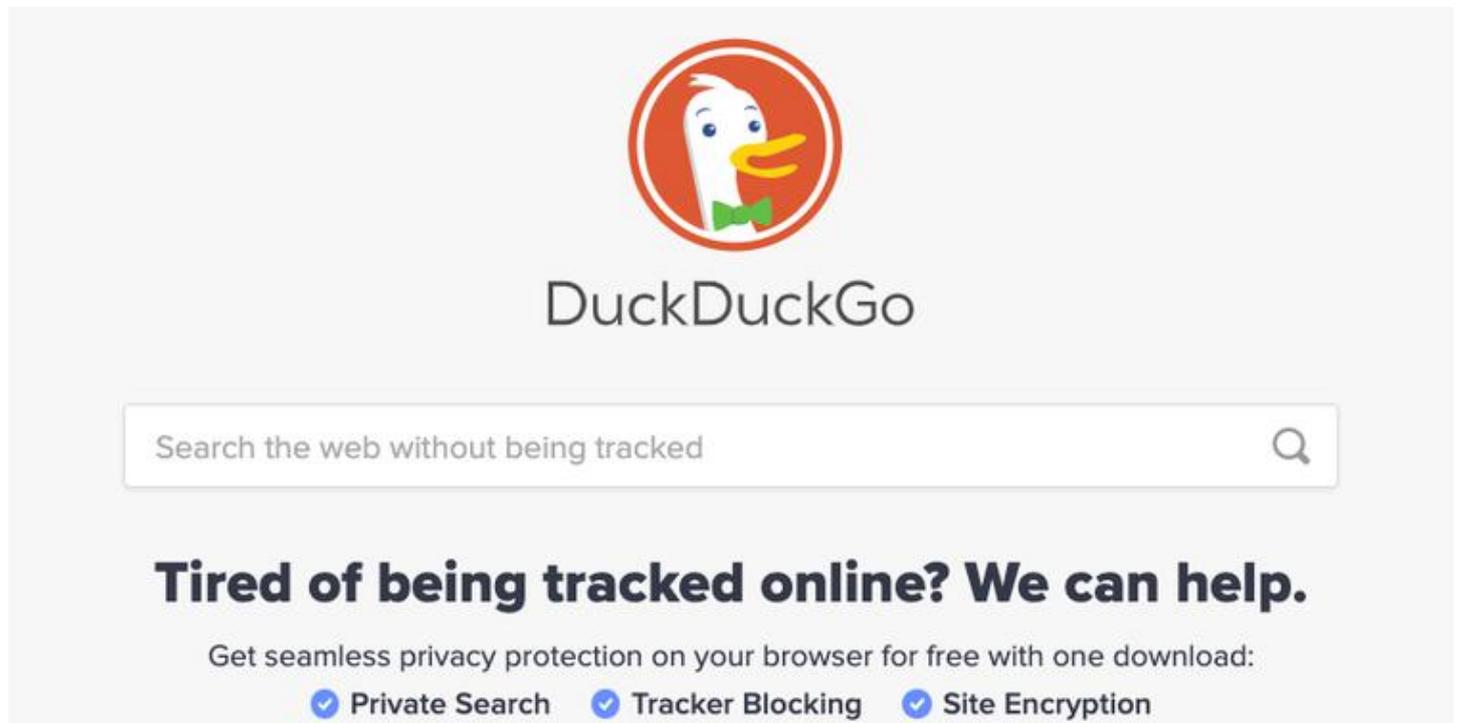
Google is the dominant search engine in Australia — it has 94% of the web search market in Australia — but there are other search services.

The second most popular search engine in Australia is Bing, developed by Microsoft and often integrated into other Microsoft products such as its Windows operating system and Office tools.

Another less popular search option is Yahoo, which also offers its own news and email service.

Other alternatives include niche search engines that offer unique tools with special features.

For example, DuckDuckGo is a search engine that has recently risen in popularity thanks to a commitment to protecting its users' privacy.



DuckDuckGo is gaining support.

DuckDuckGo/Screen shot

Contrary to the web search products from Google and Microsoft, DuckDuckGo does not store its users' search queries or track their interactions with the system.

The quality of DuckDuckGo's search results has improved over time, and is now comparable to that of the most popular search engines.

It says it now processes a daily average of more than 90 million search queries, up from just over 51 million the same time last year.

Despite not drawing on users' data to refine its search algorithms, the technology behind DuckDuckGo and other smaller players is based on the same machine-learning methods that others are using.

Search the web, save the planet

Another interesting and recent proposal of an alternative web search engine is Ecosia. This system is unique as it focuses on sustainability and positive climate impact.

Its mission is to reinvest the income generated by search advertisements (the same business model Google Search is using) to plant trees in key areas around the world.

So far, it says it has 15 million users and has contributed to planting more than 100 million trees, about 1.3 every second.

Will Google really abandon Australia?

Tim Berners-Lee, widely regarded as the inventor of the web, has pointed out that the idea of asking web platforms to pay to post links runs counter to his fundamental concept.

That said, it is also unfair for a search engine to make money using content that others have created.

It is also true that most of Google's revenue already comes from asking others to pay for links on the web. This is how Google's online advertising works: Google Ads makes advertisers pay for every impression users get or click users make to navigate to the advertised web page.

In some cases, if users end up buying the advertised product, Google gets a payment.

More likely than Google pulling out of the Australian market, the government and the search giant should diplomatically find a compromise in which Google still provides its web search product in Australia and there will be a return to news organisations for Google making use of their content.

This article was updated to clarify how Google can receive payments from advertisers for purchases.

Gianluca Demartini, Associate professor, *The University of Queensland*

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AI can now learn to manipulate human behaviour

Jon Whittle, *Data61*

Artificial intelligence (AI) is learning more about how to work with (and on) humans. A recent study has shown how AI can learn to identify vulnerabilities in human habits and behaviours and use them to influence human decision-making.

It may seem clichéd to say AI is transforming every aspect of the way we live and work, but it's true. Various forms of AI are at work in fields as diverse as vaccine development, environmental management and office administration. And while AI does not possess human-like intelligence and emotions, its capabilities are powerful and rapidly developing.

There's no need to worry about a machine takeover just yet, but this recent discovery highlights the power of AI and underscores the need for proper governance to prevent misuse.

How AI can learn to influence human behaviour

A team of researchers at CSIRO's Data61, the data and digital arm of Australia's national science agency, devised a systematic method of finding and exploiting vulnerabilities in the ways people make choices, using a kind of AI system called a recurrent neural network and deep reinforcement-learning. To test their model they carried out three experiments in which human participants played games against a computer.

The first experiment involved participants clicking on red or blue coloured boxes to win a fake currency, with the AI learning the participant's choice patterns and guiding them towards a specific choice. The AI was successful about 70% of the time.

In the second experiment, participants were required to watch a screen and press a button when they are shown a particular symbol (such as an orange triangle) and not press it when they are shown another (say a blue circle). Here, the AI set out to arrange the sequence of symbols so the participants made more mistakes, and achieved an increase of almost 25%.

The third experiment consisted of several rounds in which a participant would pretend to be an investor giving money to a trustee (the AI). The AI would then return an amount of money to the participant, who would then decide how much to invest in the next round. This game was played in two different modes: in one the AI was out to maximise how much money it ended up with, and in the other the AI aimed for a fair distribution of money between itself and the human investor. The AI was highly successful in each mode.

In each experiment, the machine learned from participants' responses and identified and targeted vulnerabilities in people's decision-making. The end result was the machine learned to steer participants towards particular actions.



In experiments, an AI system successfully learned to influence human decisions.
Shutterstock

What the research means for the future of AI

These findings are still quite abstract and involved limited and unrealistic situations. More research is needed to determine how this approach can be put into action and used to benefit society.

But the research does advance our understanding not only of what AI can do but also of how people make choices. It shows machines can learn to steer human choice-making through their interactions with us.

The research has an enormous range of possible applications, from enhancing behavioural sciences and public policy to improve social welfare, to understanding and influencing how people adopt healthy eating habits or renewable energy. AI and machine learning could be used to recognise people's vulnerabilities in certain situations and help them to steer away from poor choices.

The method can also be used to defend against influence attacks. Machines could be taught to alert us when we are being influenced online, for example, and help us shape a behaviour to disguise our vulnerability (for example, by not clicking on some pages, or clicking on others to lay a false trail).

What's next?

Like any technology, AI can be used for good or bad, and proper governance is crucial to ensure it is implemented in a responsible way. Last year CSIRO developed an AI Ethics Framework for the Australian government as an early step in this journey.

AI and machine learning are typically very hungry for data, which means it is crucial to ensure we have effective systems in place for data governance and access. Implementing adequate consent processes and privacy protection when gathering data is essential.

Organisations using and developing AI need to ensure they know what these technologies can and cannot do, and be aware of potential risks as well as benefits.

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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.

Why Video Calls Are So Exhausting (And What You Can Do About It)

<https://www.besttechie.com/why-video-calls-are-so-exhausting-and-what-you-can-do-about-it/>

Attending a lot of video conferences and now exhausted? Check out this post for some ideas on how to cope with that.

How To Enter BIOS In Windows 10

<https://www.digitalcitizen.life/how-boot-uefi-bios-windows-tablets-convertibles>

You may never need to know this but if you ever need to access, or change, settings of the BIOS of your Windows 10 device, it is good to know.

3 Different Kindle Homescreens - Which !s Your Favorite?

<https://blog.the-ebook-reader.com/2020/07/09/3-different-kindle-homescreens-which-is-your-favorite/>

I have been a Kindle user for a long time and did not know this. If you have a newer Kindle, and dislike the default homescreen check out this post for other options.

How To Get In-Ear Headphones To Fit Properly

<https://www.techlicious.com/how-to/tips-for-getting-in-ear-headphones-to-fit-properly/>

I go through a lot of in-ear headphones, for some reason, so this is something I deal with frequently. If you have problems getting the earpieces to fit properly, check out this post for some possible solutions.

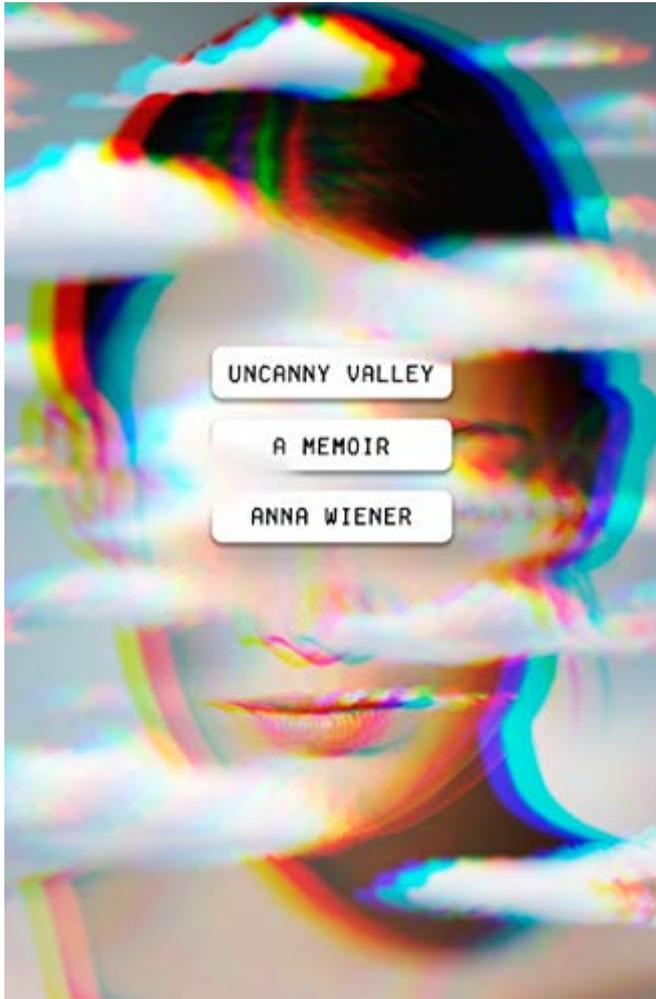
11 Handy Zoom Hacks To Make Your Digital Life Easier

<https://www.mentalfloss.com/article/626634/zoom-meeting-hacks>

If you are like me, you are attending more zoom meetings these days. Check out this post to make things easier for yourself. There were some of these hacks I didn't know about before reading this post.

Book Review

Tim McQueen



Uncanny Valley - A memoir
Anna Wiener
Farrar Strauss & Giroux
284 pages

Wiener is a contributing writer to The New Yorker. After college she tried for a career in publishing in New York. As this wasn't progressing she tried her luck in Silicon Valley with a tech startup (which was probably Audible). She worked for a couple of other startups and was peripherally involved in the Venture Capital scene. One encounter involved her dismissing the concept of self-driving cars to an engineer who was building them. As a memoir it is fairly narrow in scope. If you are interested in the experiences of a twenty-something year-old female on the fringes of Silicon Valley some five or ten years back this is the book for you. If not; don't bother.

East SIG Report December 2020

Neil Muller

Host Paul Woolard opened East SIG's December meeting again via Zoom. After welcoming members, the meeting then commenced with **George Skarbek** presenting Q&A.

Q: During last month's Q&A it was mentioned that MS Office 2019 was available from Groupon for \$49.95. I purchased a copy and wonder if I uninstall my current Office 2010, can I reinstall it on another computer?

A: I'm not sure whether Microsoft will worry about a 2010 version of Office. If it's the original computer Office is installed on, it would be assumed that the computer would have been updated during that period. What I would do is to install Office 2019 alongside Office 2010 in case something goes wrong with the 2019 version. Then install Office 2010 on another computer and if the install baulks, then uninstall Office 2010 on the original computer. You will find there's not much difference between the 2 versions.

[Richard] I have a comment about installing multiple versions of Office. I had Office 365 installed and when I tried to install Office 2016, I wasn't able to install it until I uninstalled Office 365.

[George] That won't be a problem in this case as the install is from an older version to a newer one.

[George] If anyone is still running Windows 10 version 1803, support for that version has ended and they should upgrade to the latest version now.

Following Q&A, **Trevor Hudson** presented a number of videos he'd prepared and loaded onto YouTube. The first video was titled "How to Send Long Videos on Messenger". Messenger is a messaging program developed by Facebook. Initially, you had to sign up to Facebook to use Messenger, now it can be downloaded as an app from the Google Play store. Trevor believes you may still have to sign up to Facebook to use the app. When sending videos on Messenger there is a 20 seconds limit on the length of videos you can send. Trevor's video shows how to circumvent this limit and send videos of longer than 20-second duration.

The second video Trevor presented was titled "Mirror Samsung Screen to Smart TV using Smart View". This video shows how to mirror the screen on a Samsung phone or tablet to a smart TV using Smart View. Smart View is an app that is pre-loaded on later model Samsung Galaxy phones and Samsung tablets. Owners of other brands of smartphones will need to look in the Google Play store for similar mirroring apps. In his video, Trevor explains how to set up mirroring on a Samsung phone. He notes for mirroring to work both devices must be on the same WiFi Channel and mirroring will not work if a VPN is being used.

The final video presented was titled "Anti Theft Security Bag". In the video Trevor outlined some of the bags many security features such as a cut-proof shoulder strap, which incorporated a metal wire woven 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.

All of Trevor's videos are less than 5 minutes long and can be found on YouTube. Use the title of each video to search in Google or by using Trevor's tag HX7V.

The next presentation of the night was titled "Windows 10 20H2 Features", presented by **Dave Botherway**. First up Dave noted the change in numbering used by Microsoft for its biannual feature updates to Windows 10. Previously the latest feature update, issued in October, would have been called 20-09. It is now known as Windows 20H2. Some claim the change is due to Microsoft never being able to meet the date deadline of their feature updates.

The latest Windows 10 feature update concentrates on bug and performance fixes and is light on with new features. However, this feature update should improve performance and reliability.

The most notable changes to Windows 10 are:

- The start menu and tiles are now more "theme aware". When the Windows 10 theme is changed, the menu and tiles can be changed to reflect the new theme.
- Microsoft claim a more friendly taskbar. (I couldn't notice any difference!)
- The ALT + TAB feature has changed. In addition to scrolling between open windows, ALT + TAB will now include open tabs in the Edge browser.
- The Edge browser will now come pre-installed with Windows. Previously the chromium-based version of Edge had to be downloaded separately.
- Icons in the Start menu's left pane have been enhanced
- Items in the Settings menu have been updated. Eventually, all items from the Control Panel will migrate to the Setting menus.
- Notifications have been reduced to a quarter of previous levels to minimise distractions.

Members present who'd updated to 20H2, noted the update was quick and their computer ran smoothly and without problems afterwards.

To conclude Dave highlighted 2 programs he's been testing lately and would recommend to members. The first was a file manager called XYplorer free version. What Dave liked about this program was the ability to view different folders, along with their directory tree, side by side. (Refer to Figure 1) The advantage of viewing different folders side by side is twofold. Comparing files in each folder is easier and dragging and dropping files between the 2 folders is more convenient than other techniques.

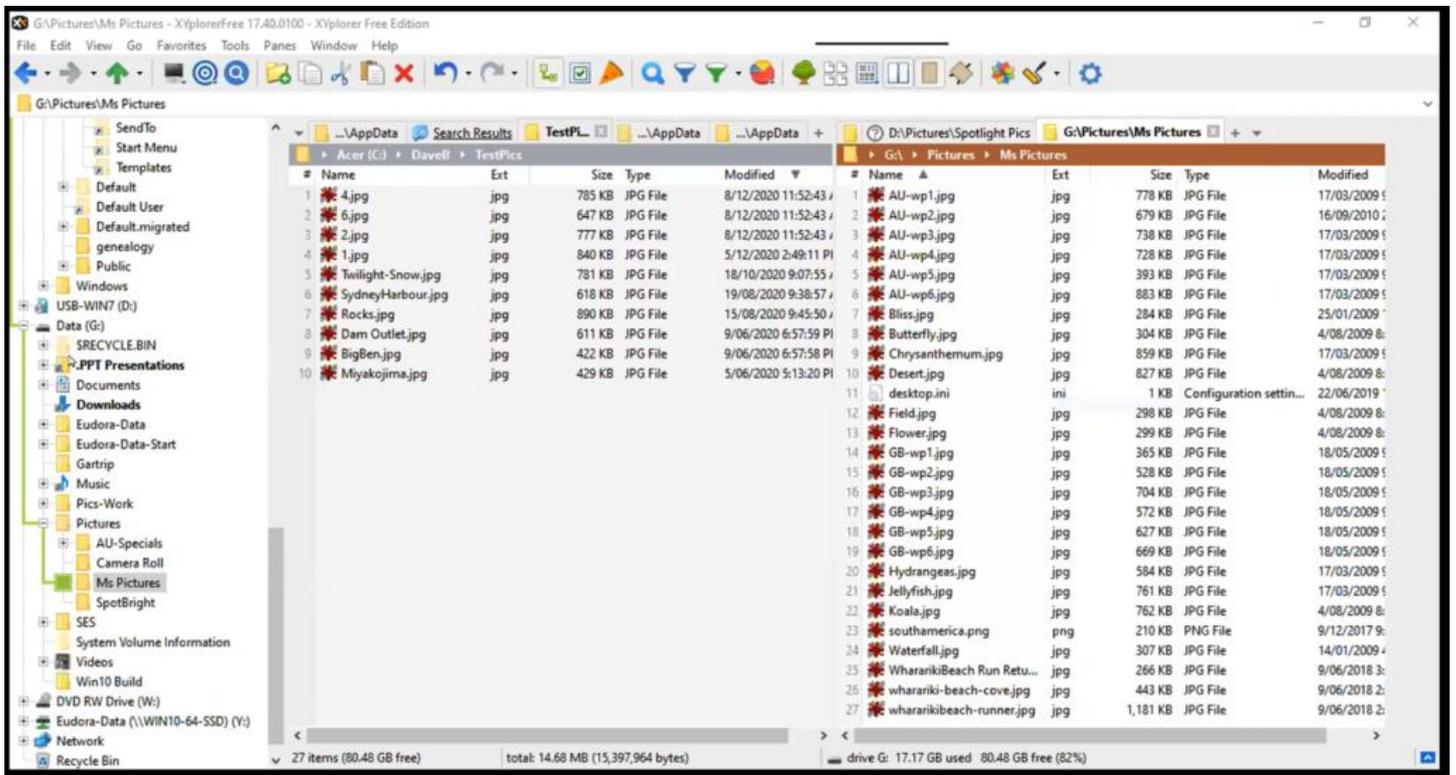


Figure 1 - XYplorer Twin Panes

More recently Dave has been testing a web browser called Vivaldi. Vivaldi is open source and based on chromium. Dave thought he'd give Vivaldi a test run after reading a review that ranked it as one of the best of the current web browsers. The feature that Dave's found particularly useful is the ability to view 2 or more webpages side by side. Figure 2 below shows how two webpages can be split both horizontally or vertically. It's also possible to display 4 webpages simultaneously in a 2 x 2 grid.

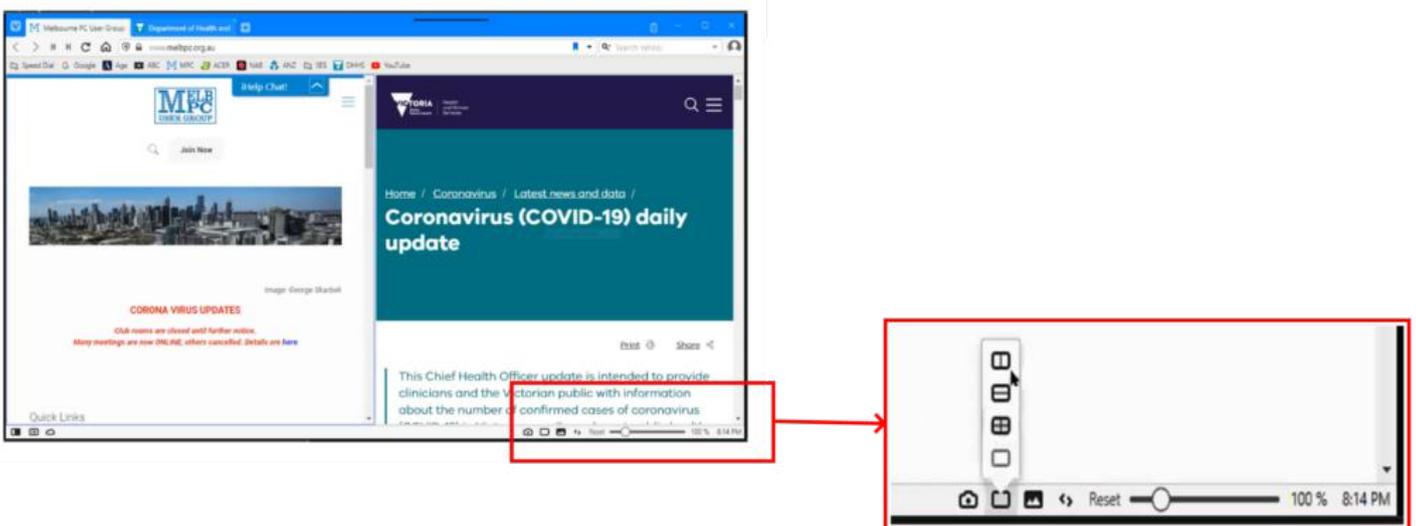


Figure 2 - Vivaldi Web browser twin page view

The final presentation of the night was by John Hall and titled “My New Pixel 4A Phone”. The main reason John selected the Google Pixel 4A were the glowing reviews he’d read on its camera. Previously all John’s phones were Samsungs, with the new phone to replace his Samsung Galaxy A5 which according to John had a lacklustre camera.

John wanted a phone with a good camera so he could take good quality photos on the go. To have a phone in your pocket that could take quality photos was John’s highest priority. Various reviews were read that gave the Pixel excellent marks as a phone and as a camera. The Pixel 4A is not the premium model Pixel phone but as a mid-range model has received excellent reviews for its camera, 4K videos and as a phone.



Figure 3 - Google Pixel 4A

John then proceeded to outline the specifications of the Pixel 4A and why he chose it for his next phone.

Google Pixel 4A Specifications:

- Mid-range phone costing < \$600
- OLED Screen - 5.81-inch 2340 x 1080 resolution, which fills the full width of the phone.
- CPU - Snapdragon 730G CPU. This is a lower-powered CPU than the latest CPUs, but married to the

large mAh battery gives John 2 days usage before needing a recharge. The 730G CPU is still a very good CPU and was probably one of last year's top CPUs.

- RAM - 6GB
- Storage - 128 GB. It does not have an SD card slot for extra storage, but as photos are uploaded automatically to Google Photos extra storage is not an issue.
- Front Camera - 8 MP with up to 4 x digital zoom
- Rear Camera - 12 MP with up to 7 x digital zoom, f 1.7, 4032 x 3024 px
- Video - 4K @ 30 fps or HD @ 120 fps. When the HD @ 120 fps is played back at 30fps John found the slow-motion is very good and worth trying when videoing wildlife.
- Audio - Stereo Jack with earphones supplied! Most expensive models no longer have a stereo jack as audio is connected via USB-C. John prefers to use the headphone jack.
- Battery - 3140 mAh. This battery is as big as many of the expensive models
- Fast charger - 26 minutes for full charge.

Below are John's reasons for using the Pixel 4A as his go-to camera for still photography:

- Convenience -
 - Always on hand because the phone is always with you.
 - Small size that fits easily into a pocket.
- Stabilization and Framing
 - Optical stabiliser rather than software stabilisation
 - Horizontal horizon indicator
 - Framing indicator for rule of thirds
- Ease of upload
 - Google Photos uploaded automatically to Google Photos
 - "Sharing" with Facebook, Messenger, Outlook etc.
- Assisted focus and exposure
 - Tap to set the focus point by tapping a point on the screen. John demonstrated this feature and the images were impressive.
 - Live HDR
 - Brightness and Shadows slider
 - Portrait Mode that softens the image. Again demonstrated.
 - Night Mode for time-lapse photos

After outlining his reason for selecting the Pixel 4A, John presented a video showing a strip-down of the phone to reveal the working of the optical stabilisation and battery. The video "Google Pixel 4a Teardown! - it's a tricky little guy..." can be found on YouTube at <https://www.youtube.com/watch?v=g9uJXvZOfPM>

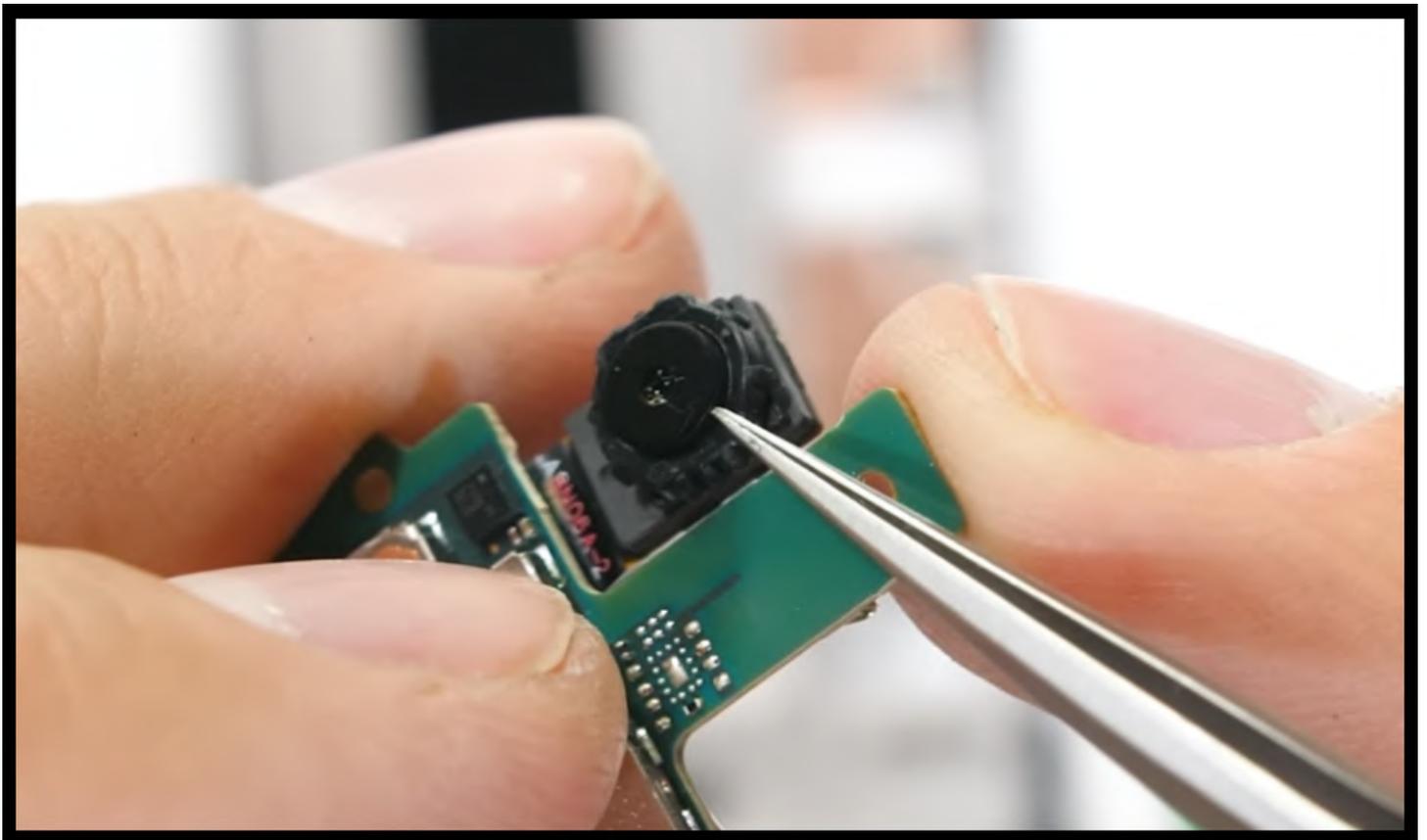


Figure 4 - Pixel 4A rear camera stabilisation mount.

After viewing the video John compared photos taken with his old Samsung 5A versus those taken with his Pixel 4A. The Pixel 4A photos taken using Focus Select, 4X digital zoom & Portrait mode were very impressive and far better than those taken with the Samsung 5A. Photos taken using digital zoom were better than you might expect due to the phone's optical stabiliser, a feature not usually found in a below \$600 phone.

John followed by presenting the reasons he now uses the Pixel 4A for taking videos.

- The lens is optically stabilised
- Video quality is excellent
 - Rear Camera is 12 Mp with a 7 x zoom, f 1.7, 4032 x 3024 px
 - Video is 4K @ 30 fps or HD @ 120 fps
- Convenience
 - Always on hand
 - Unobtrusive rather than carrying around a large DSLR.

To demonstrate the video quality John did a walk around his back garden using the Pixel 4A and his Nikon P340 Compact Camera. Videos from both were handheld with the Pixel with its optical stabilisation far outshining the Nikon.

Although the phone was bought mainly for its excellent camera, John has been very impressed with the phone itself. He then summarised his thoughts on the Pixel 4A as a phone.

- Firstly, it's made by Google and is a quality phone
- It doesn't come pre-loaded with unnecessary extra apps.
- It comes with the latest Android Operating System (Android 11) and is guaranteed to be updated for the next 3-4 years. Updates will appear before other brands as both the O.S. and phone are made by Google.
- It has very smart applications designed for Android (refer video below)
- It's far better at answering calls than his old Samsung
- It comes with an earphone jack and earphones!
- It works great with Google Auto navigation
- It synchronises with GSuite. This is John's 2021 project now MelbPC is linked to GSuite.

To conclude the presentation John played a YouTube video showcasing many of the Pixel 4A's new features and how they are used. For anyone considering buying a Pixel 4A this is the video to watch as it gives an excellent coverage of the many features and how to use them. The video is titled "Google Pixel 4a Tips Tricks & Hidden Features + Android 11 !!!" at <https://www.youtube.com/watch?v=Hi8r2-dkC2k> .

Yammer Highlights January 2021

Dennis Parsons

Computer Help

In these days of COVID online meetings are ubiquitous and if you wish to fully participate a functioning camera and microphone are a necessity. Unfortunately for Arthur he's had a problem using the webcam he has attached to an older desktop for Zoom meetings - the camera works well but he just can't get the microphone to work.

We made all the usual suggestions - toggling the mute button in Zoom (we got to see a lovely pic of Roger indicating where it was) & using the inbuilt test functions of Zoom that can be used to check that sound and microphone are working, as well as adjusting levels. Still no luck.

Arthur himself made the next suggestion of contacting iHelp and using TeamViewer to allow remote access of his computer.

Jan mentioned she was still unable to use the inbuilt microphone on her laptop with Skype - Lenovo had been unable to resolve the issue despite months of attempts to make it work.

<<https://www.yammer.com/melbpc.org.au/#/Threads/show?threadId=997690414858240>>

Technology News

Now we all know that many cyclists are tech mad, looking for that last fraction of a percent in efficiency, even if they are a mamil (middle aged man in Lycra). This one is for you!

A new chain type, known as Dual Engagement, has been developed that claims to reduce friction and wear by preventing the link from moving when engaged on a tooth. It's not actually in production yet so you'll just have to wait.

Greg mentioned another type of "chain" that he uses on his bike - a carbon fibre reinforced toothed belt. Quiet and very low maintenance but you won't be racing down Beach Road as they're only suitable for use

with hub gears, not *derailleurs*.

<<https://www.yammer.com/melbpc.org.au/#/Threads/show?threadId=966775578902528>>

Windows 10

Have a yearning for the good old days of the early 90s? If so, then maybe you'd like to try the Windows File Manager (as seen in Windows 3.x and Windows NT). Microsoft has released the version used with Windows NT4 as open source so it's the real deal, not just a knock-off.

<<https://www.yammer.com/melbpc.org.au/#/Threads/show?threadId=1004924966313984>>

NBN Questions and Comments

-

Having been given the 3 months notice for termination of his Optus cable connection John bit the bullet and decided an Optus 5G connection was preferable to NBN HFC - they offered incentives and the call of higher speeds in the future if desired was tempting.

He reports it was very easy to set up and is happy with the 100Mbps down and 12-13Mbps up he is receiving - the speeds are limited by the plan he has chosen, not the technology.

<<https://www.yammer.com/melbpc.org.au/#/Threads/show?threadId=1041671501021184>>

You'd think that 5G was 5G regardless of whether it was via a mobile phone or a modem but apparently not. Greg had recently purchased a 5G phone and was getting very good data speeds at home (300-600Mbps) so thought he'd like having that for home Internet as well and made enquiries. The answer was "no"! Turns out there are different settings in the tower for mobile phones and fixed wireless and the tower he was connecting to was good for mobile but weak for fixed wireless. He's going to wait and see if Optus comes to the party and makes the appropriate adjustments to their equipment.

<<https://www.yammer.com/melbpc.org.au/#/Threads/show?threadId=1035360987611136>>

Phones

-

With 5G still being in its early days not all 5G capable phones are created equal when it comes to the frequency bands supported. The n78 band is used by all three networks, while in addition Telstra uses n5, Optus n40 and Vodafone n28. To get the best 5G coverage you either need to carefully choose the phone to match the network you intend using, which potentially limits your options if you later decide to change providers, or buy a phone that cover all bands.

An iPhone 12 covers everything but is more than a little costly. High price doesn't guarantee anything as the Google Pixel 5 and Pixel 4a 5G don't have all bands. Cheaper options are available that have all three network specific bands, such as the Samsung A42, Oppo Reno4 Z 5G or the Nokia 8.3.

So if you're in the market for a 5G phone it will pay to do your homework to reduce the chance of being disappointed.

< <https://www.yammer.com/melbpc.org.au/#/Threads/show?threadId=1026473169272832> >

Security, Scams and Phishing

We had a classic example of one compromised e-mail account leading to more. A number of Yammer users reported receiving an e-mail from another Melb PC member purporting to be a document to sign. Fortunately for most of us it was seen as clearly dodgy and treated as such. I deliberately clicked to see what it was attempting to achieve - it presented a fake Office 365 login page prompting you to provide your credentials, which of course would have been collected & used to access your account and send further e-mails.

We were the third generation - we'd received it from a second generation recipient who had been caught out by a similar e-mail from another member. There may have been additional generations but I don't know that.

We all know we shouldn't simply click away on links in e-mails but if it resembles something we're expecting to receive it's all too easy to fall for it.

<<https://www.yammer.com/melbpc.org.au/#/Threads/show?threadId=1033739428429824>>

Using Google Workspace

John was puzzled as to why when he was composing an e-mail using the Gmail web interface only some of the fonts seemed to work when he selected them. The others could be selected but didn't actually change. He was using his Linux computer so checked on a Win10 one only to discover it worked as expected.

That provided the clue - the missing fonts are MS proprietary ones so aren't open source and aren't installed by default on most Linux systems. This can be easily remedied by installing an MS font package using your favourite package manager (you may need to enable the appropriate repository) or they can be manually added. Even Comic Sans if you're feeling lonely.

<<https://www.yammer.com/melbpc.org.au/#/Threads/show?threadId=990933750030336>>