

>PC Update

June 2020

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The newsletter of

Melbourne PC User Group

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Monthly Meeting Live Stream from 7.00pm on Wednesday 3rd June 2020 at <https://melcc.org.au/monthly-meeting-live-june-2020>

Please remember to always bring your membership card to meetings

[SIG Listings](#) and up to date calendar are available on our [homepage](#)

Editorial June 2020



Hugh Macdonald

Welcome to another edition of PC Update, and already we find ourselves in the sixth month of 2020.

This year has already brought so much in just six months: devastating bush fires, a once in a 100 years pandemic, and now seemingly, political unrest in the United States of America on a scale we haven't seen in many years.

So I hope this little magazine can provide you with a bit of distraction from these highly unusual times.

Although you will still find some discussion of coronavirus inside, you will also find much else to inform and entertain: the early findings of a Melbourne research project to speed up the Internet, tips on minimising eye strain while using your computer, how to use virtual machines (maybe you've always wanted to try Linux but were afraid you might wipe out Windows in the process), and some more member tips and tricks.

You'll also find the regulars including Yammer highlights, DOTW highlights, book reviews and an update from the President. As most of our SIGs have been adjusting to Google Meets or Zoom calls, reports from them are on hold for another month.

Enjoy reading, and have a good month!

[From The President June 2020](#)

David Stonier-Gibson

I hope you are all holding up OK in “iso”. It strikes me that those of us who are retired are the lucky ones, or at least best placed to cope with the potential disruption to our lives. To be honest, not that much has changed for me in my daily routine, except for not having had a haircut for a while!



May monthly meeting

The strange circumstances opened up a possibility that would not have existed BV (Before Virus). I was able to get together a pretty high powered discussion panel that included two AO recipients and people in Canberra and Sydney, as well as here in Melbourne. It also allowed me to try my hand as a panel discussion moderator. For the first 20-25 minutes, I found myself having to push and prompt the panellists, but then the discussion on society after Corona took on a life of its own and I was able to pretty much sit back and enjoy.

A big thank you to Hugh Macdonald for (once more) being the virtual control room operator, and to Chris Hayes for consulting on the technical setup and being standby control room.

The meeting recording is available at https://youtu.be/G9tEnSe_lU

May monthly meeting plan

For the June meeting, I have persuaded Kirsten Greed, our newest committee member, to have a go at organising speakers. We will have a number of our own SIG leaders talking about how they have been handling the challenges of running a SIG under “iso”. Kirsten has asked me to be moderator/MC. This should also serve as a timely reminder that all members are entitled to attend all SIGs. I am sorry we have not got our act together to publish links to virtual meetings, but if you are interested in one you should be able to get a link from the SIG convener, who you can identify on the website SIG list at <https://www.melbpc.org.au/sigs/about/sig-list#> There may be things there like genealogy or video that you couldn't get to in person - here's your opportunity to tap in from home.

The transition away from Microsoft web services

The engineering team on the transition project have been working quietly behind the scenes, and will soon have a solid, tested plan in place. The general intention is to transition members in several tranches in a way that will in most cases be close to transparent to individual members. A couple of test transitions have already been done.

[Monthly Meeting June 2020](#)

Guest Speakers: John Hollow, Kelvin Cording, Paul Hattam, Craig Evans

Topic: SIG Meetings in the time of Corona

Now that we are getting so much better at meeting online, it is an ideal time to hear from some of our special interest groups in the club.

A panel of our SIG leaders are here to tell you about their group and how they have been keeping in touch lately.

A reminder that your membership enables you to participate in these groups, so take the opportunity to check them out while they're meeting online.

Meeting Agenda

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

Guest speakers: John Hollow, Kelvin Cording, Paul Hattam, Craig Evans

Social break

President's Report: David Stonier-Gibson

What's New? with George Skarbek

8.30pm (approx): Close

Catch the stream at <https://melcc.org.au/monthly-meeting-live-june-2020>

Virtual Machines

Dick Maybach, Brookdale Computer User Group, NJ

A virtual machine (VM) is a program on your PC (called a host in virtual-machine speak) that creates a box that appears to be a PC to an operating system (called a guest in virtual-machine speak) that resides in it. In Figure 1, the outer gray box is your PC hardware and software. The blue box within it is the program (called a hypervisor) that creates the software boxes that hold the guests, each shown as a light gray rectangle. Each guest has its own virtual hardware (in yellow) with which it communicates just as though it were a PC. Each guest also needs its own operating system (in orange) and applications (in green).

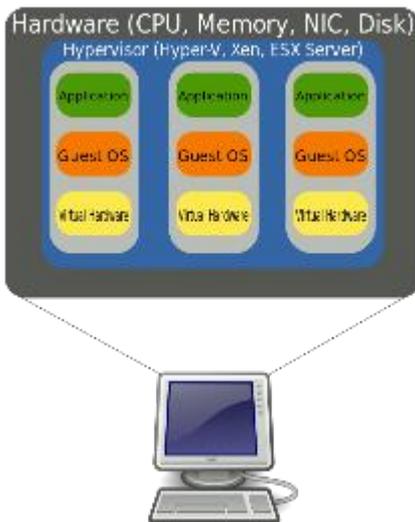


Figure 1. Virtual Machine Organization.

From the host's view, each guest is just an application, and each can operate independently of other applications on the PC, which means you can have two or more operating systems live at the same time. Moreover, you can copy and paste data and transfer files between them at any time.

It's not shown in Figure 1, but the hypervisor has an interface to configure and control the VMs; Figure 2 shows an example, in this case, VirtualBox. Note that there are five different VMs here, Windows 7, FreeDOS, Tails, Ubuntu 18.04, and Ubuntu 18.10, and all are powered off. The right portion of the screen summarizes the characteristics of the Windows 7 guest.

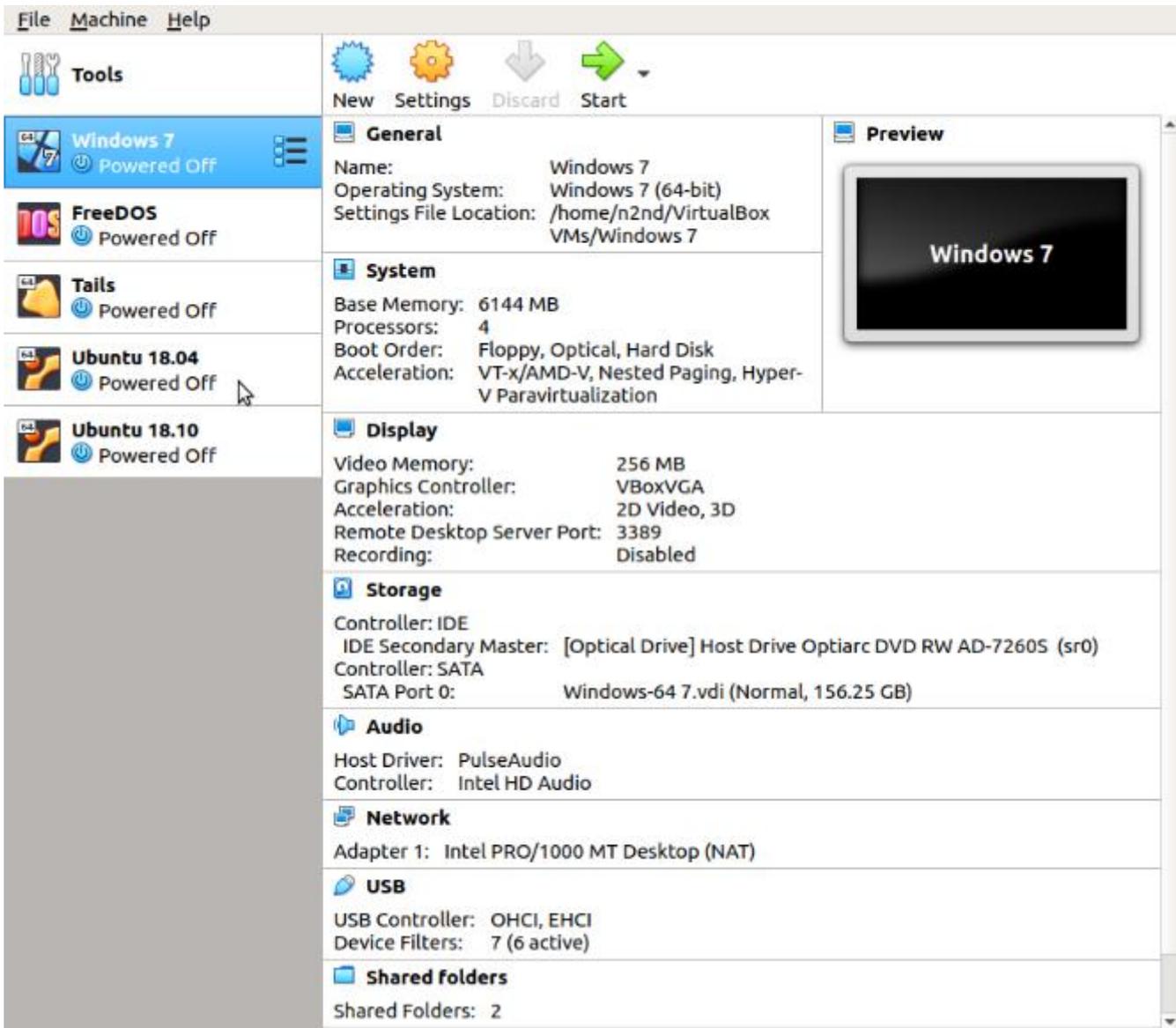


Figure 2. VirtualBox Administration Panel.

Figure 3 shows Windows 7, running as a guest under VirtualBox.

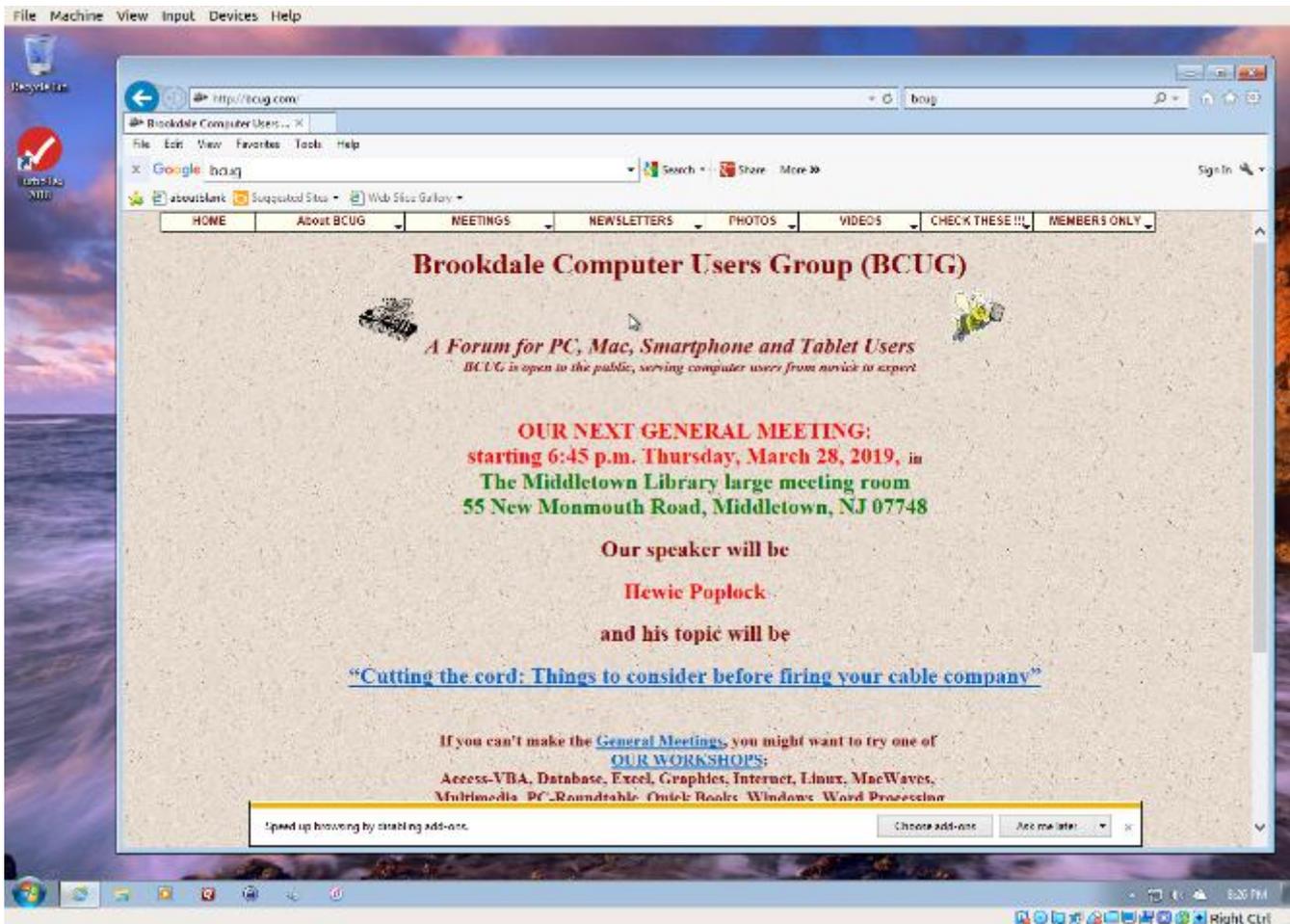


Figure 3. Windows 7 under VirtualBox.

As with most other applications, control follows the cursor. Place the cursor within the VM window and mouse clicks and keystrokes are sent to the VM. Move the cursor outside the VM window, and they affect something else.

Why bother with this? As you probably suspect, adding a software layer between the guest OS and the PC slows down the guest and complicates the host. Here are some possible uses.

- Run a different OS - my host runs on Linux, but there are a few applications available only on Windows, such as TurboTax and the software needed to update my GPS. If your host is Windows, putting Linux on a VM is far superior to running it from a live USB.
- Trial OS upgrades - I prefer to try a new version before I commit to it on the host, as often some applications aren't compatible. In the case of Windows, free trial versions are often available before a new version is introduced, and a VM lets you play with these without risk.
- Test alternate configurations of your host OS - making such experiments on a VM can save you from serious, "It seemed like a good idea at the time," calamities. This is more difficult with a commercial OS but look for ways around this. I've made a duplicate installation of Windows on a VM, and while it complained, it did run long enough for me to complete my tests.
- Trial applications - testing applications on a VM means you don't have to uninstall them when they don't work out. This is made easier with the VM snapshot feature. Before you install, create a snapshot (equivalent to cloning the hard disk). You can then revert to the snapshot if you decide to discard the application.
- Test live USBs or DVDs - much software is available on live media. You download an ISO file, burn it onto a medium, and boot your PC from it. With a VM, you just designate the file as being installed on

the guest's virtual DVD drive, which now boots from the virtual DVD instead of its virtual hard disk. As a result, you don't have to burn the file to a medium.

Before I used VMs, I relied on dual booting for the similar tasks. Here, the alternate OS has direct access to the PC, which means it's substantially faster than when running as a VM guest. However, this requires repartitioning the host's hard drive, where an error can be catastrophic, and moving data between the two hosts is awkward.

There are many VM systems available, with the four most popular being VMWare (for Windows, OS X, and Linux), VirtualBox (for Windows, OS X, and Linux) Parallels Desktop (for OS X) and QEMU/KVM (for Linux). I've used VirtualBox for several years and have recently begun experimenting with QEMU/KVM, so everything I say about the other two is hearsay. From what I've read, it appears that VirtualBox is the easiest to configure and use, plus it's free for home users. VMWare, the oldest of the four, is possibly faster than VirtualBox, but configuring it requires some experience, and it's a commercial product. A free version is available, which is missing only a few unimportant features. QEMU/KVM is not for the faint-hearted, as it was designed by Red Hat for use in professionally staffed server farms. Also, although it appears to be quite fast it runs only on Linux. Making configuration changes such as, increasing the screen resolution and enabling host/guest file sharing involves working at the command line and being familiar with the Linux file organization and permissions. However, once set up, it's as easy to use as VirtualBox. GNOME Boxes (which I haven't used) allows Linux users to use KVM with a simple set-up process and user interface, although with more limited control of the virtual environment.

Figure 4 shows the QEMU configuration panel, which has essentially the same information as that of VirtualBox. After a VM has been installed, the day-by-day configuration is done from here.

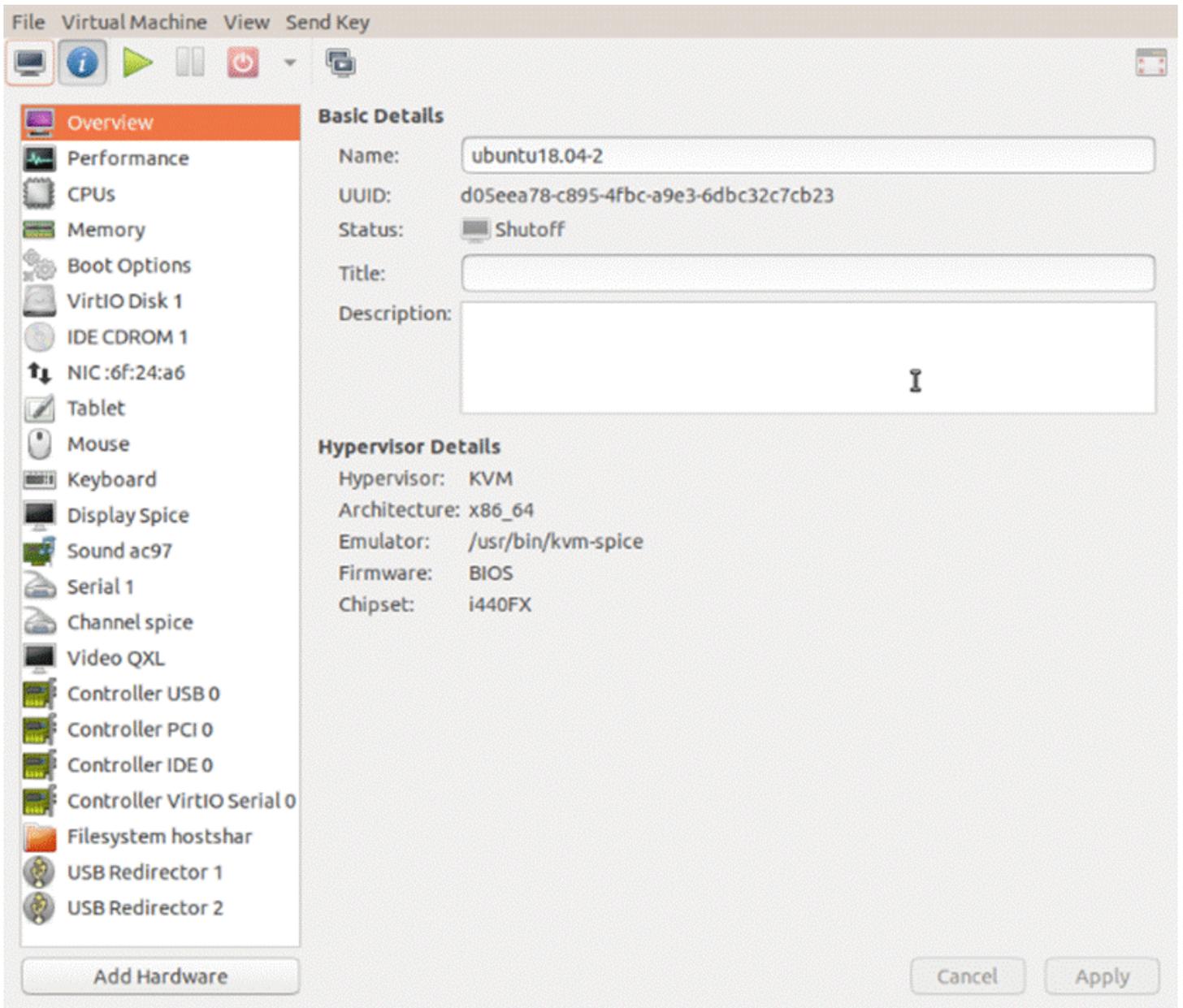


Figure 4. QEMU/KVM Configuration Panel.

A VM operating under QEMU/KVM appears in Figure 5, also essentially the same as it would appear under VirtualBox.

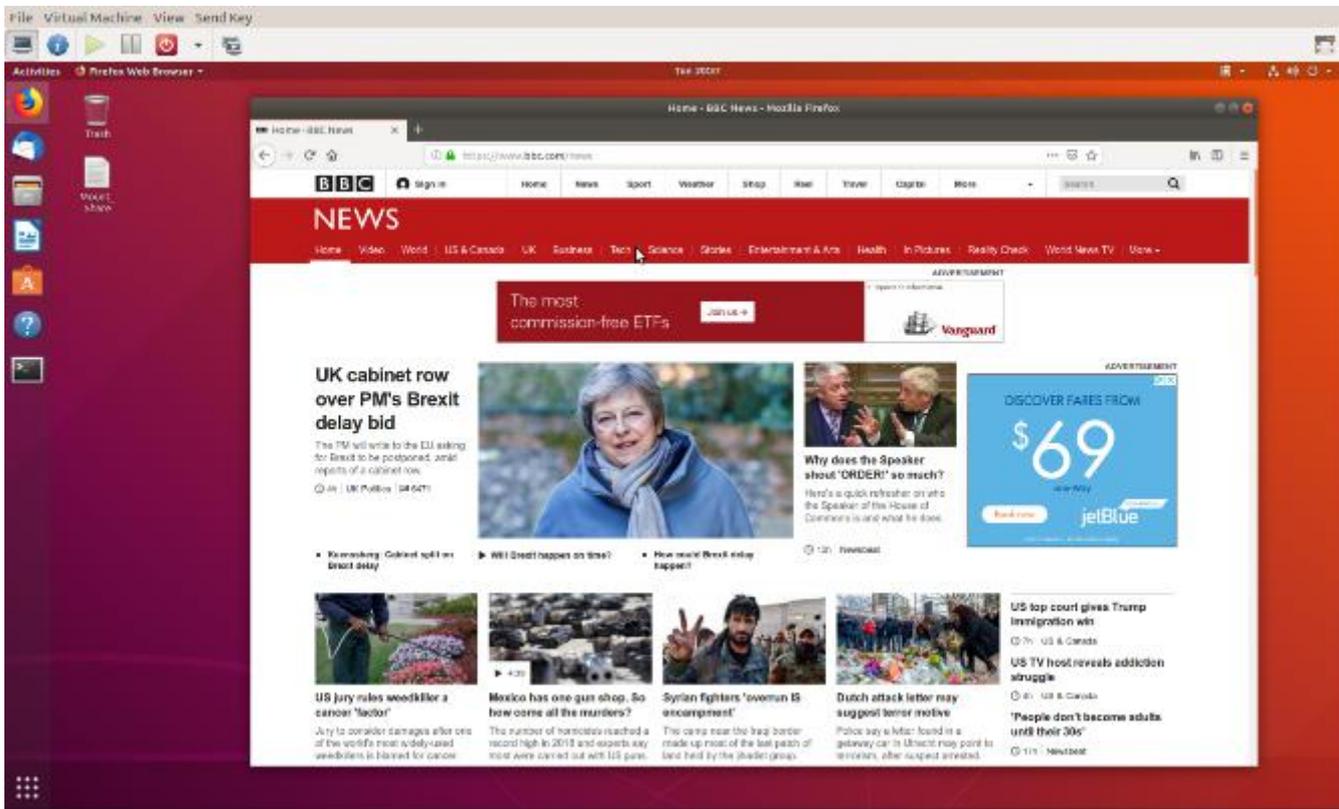


Figure 5. QEMU/KVM in Operation.

Running VMs requires a host with adequate resources. It needs four Gbytes RAM (absolute minimum, eight is preferable) and 12 free Gbytes disk space for each guest (again more is better). VM features on CPU are desirable (VT-x on Intel and AMD-V on AMD processors). Check your VM documentation, as these features may be disabled in your BIOS.

Guest speed will be lower than those of a host, but for most applications this isn't important. Of course, you should run any resource-intensive tasks on your host. Graphics, in particular, will be slower and probably have fewer features than your host hardware. Resources used by a guest are no longer available to the host. For example, if your host has eight Gbytes of RAM and you allocate four to a guest, the host now can use only four.

A VM is completely defined by its file, which is essentially an image of its virtual hard disk. If you back up this file, you've backed up the VM. This isn't an unmixed blessing, as any time you boot the VM there will be changes in the file, which typically occupies at least several Gbytes of disk space. As a result, your backups will take longer and occupy more space.

Guests are reasonably well isolated from the host, except for any shared directories, making you fairly secure against the common risks, such as operator error and software bugs. However, some malware attacks can get through to the host, which means a VM is not a good vehicle for investigating malware.

Although VMs are valuable, they do introduce complexity and add risk. I used VirtualBox for several years

but noticed beginning with Ubuntu version 18.04 that after a few minutes Ubuntu guests would drastically slow, to the point of being unusable. This can be remedied by turning off VirtualBox's 3D display acceleration, which is enabled by default. The developers have acknowledged the problem but say they don't have the resources to correct it. After the last VirtualBox update, it refused to run my Ubuntu 16.04 guest at all, which is why I ventured into QEMU/KVM land, and fortunately, the trip was successful. Using VMWare might also have solved the problem, but since my host is Linux, QEMU/KVM was a better approach.

Despite their disadvantages, VMs are a valuable resource for me, one I use almost every day. They allow me to run software experiments more easily and with less risk than do their alternatives. Without them, many of my articles would have been just cut-and-paste cribs from other folk's work.

Reprinted with permission from the August 2019 edition of BCUG Bytes.

Tech And Your Eyes

Debra Carlson, CVC Computer Club, CO

Words like “ergometrics” and “accessibility” fly around when talking about tech devices but what does that mean practically - to the user?

First, a definition:

Ergometrics is an applied science concerned with designing and arranging things people use so that the people and things interact most efficiently and safely

— called also biotechnology, human engineering, human factors

merriam-webster.com/dictionary/ergonomics

In the first of this series of articles, we'll talk about how tech interacts with EYES.

COMFORT can be an important guide for dealing with eyes and tech.

1. Ambient lighting should complement light from the screen.

Lamps pointed directly at the screen cause reflection making it harder to see what is printed. If you are typing from notes, however, it is important to have that document well-lit to prevent eye fatigue. Avoid setting a monitor where it will get direct sunlight for the same reason.

2. Most monitors (*hardware*) and operating systems (*software that controls how interactions occur within various computing components like hardware or programs used to browse the internet or create documents*) have light level controls in addition to colour and size settings. Tempering the background colour and complexity of any graphic that “shows through” your viewing windows will lessen the need for more lumens (*the amount of light*). Sometimes changing to dark background and yellow or white print is less taxing to the eyes ... making it easier to see.
3. The position and angle of the monitor are important! You might be surprised how much raising the monitor, or tipping it slightly, will improve screen visibility.
4. Some find “computer glasses” help arbitrate the distance to a monitor if using a desktop or laptop regularly ... and some find glare is cut (*particularly with cataracts*) by using “yellow lens” sunglasses (*slipovers or clip-ons*).

Safety is assisted by comfort, but it is a **DISCIPLINE**. Eyes, balance, circulation, joint health, and physical health in general benefit from:

1. Adjusting the monitor so you can see it easily. Perhaps getting a riser for it (*if you are taller*) so you will sit straight in the chair.
2. Look away from the screen often. When you look away from the screen, shake out your hands.
3. Plan to stand and walk regularly - some suggest every 10 minutes ... most at least every half hour.

Don't be afraid to experiment with screen resolution or font size. Just remember the following:

1. Before a change, take note of what it is you are having trouble seeing. Every solution makes “changes.” But making the **most efficient change** for your problem will be the most helpful. It also makes it easier to “undo” if your needs evolve.
2. Make one change at a time and see if (or how well) it works for you. This may seem pedantic, but it will assist you in knowing what part of the system, changed, helps you most.
3. Don't forget - colour change can be as or more effective than size change in some circumstances.

4. Many programs have “options” or “preferences” that can be set to make viewing easier. Where these do not exist, third-party “extensions” can provide additional modifications not included by the developer.

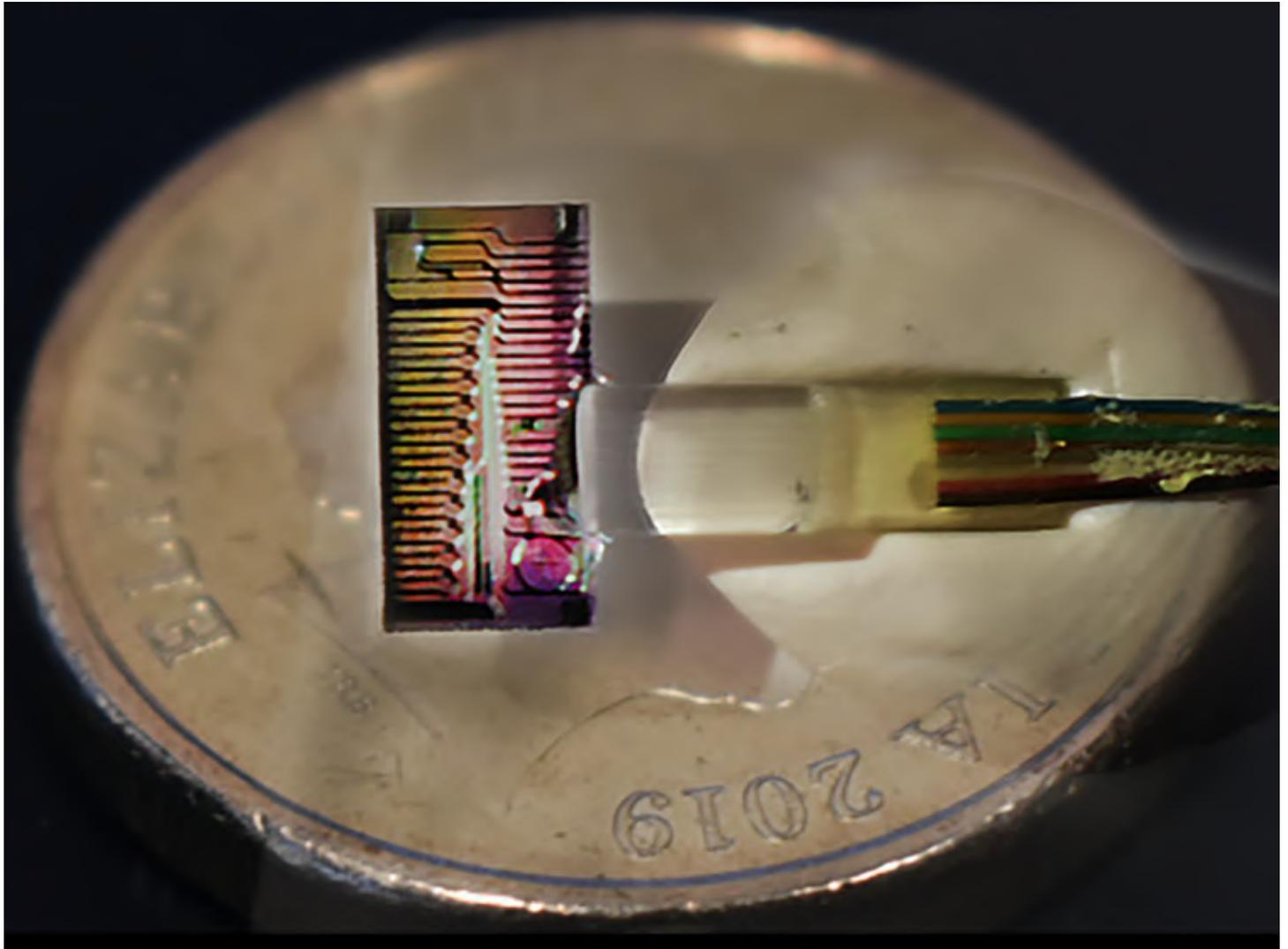
Don't forget about using ZOOM to make individual pages larger or smaller when needed, rather than changing the entire machine unnecessarily.

Hopefully, you got an idea or two in this. In coming issues, we will talk about:

- Does size matter?
- Things in your hands
- Cords, Voice, Sound, and other hazards

Reprinted with permission from the Q1 2019 issue of Tech Notes.

Internet traffic is growing 25 percent each year. We created a fingernail-sized chip that can help the NBN keep up



This tiny micro-comb chip produces a precision rainbow of light that can support transmission of 40 terabits of data per second in standard optic fibres.

[Corcoran et al., N.Comms., 2020, CC BY-SA](#)

[Bill Corcoran, Monash University](#)

Our internet connections have never been more important to us, nor have they been under such strain. As the COVID-19 pandemic has made remote working, remote socialisation, and online entertainment the norm, we have seen an [unprecedented spike](#) in society's demand for data.

Singapore's prime minister declared broadband to be [essential infrastructure](#). The European Union [asked streaming services to limit their traffic](#). Video conferencing service Zoom [was suddenly unavoidable](#). Even my parents have grown used to reading to my four-year-old over Skype.

In Australia telecommunications companies have supported this growth, with [Telstra removing data caps on users](#) and the National Broadband Network (NBN) [enabling ISPs to expand their network capacity](#). In fact, the NBN saw its highest ever peak capacity of 13.8 terabits per second (or Tbps) on April 8 this year. A terabit is one trillion bits, and 1 Tbps is the equivalent of about 40,000 [standard NBN connections](#).

This has given us a glimpse of the capacity crunch we could be facing in the near future, as high-speed [5G wireless connections](#), [self-driving cars](#) and the [internet of things](#) put more stress on our networks. Internet traffic is growing by [25% each year](#) as [society becomes increasingly connected](#).

We need new technological solutions to expand data infrastructure, without breaking the bank. The key to this is making devices that can transmit and receive [massive amounts of data](#) using the optical fibre infrastructure we have already spent time and money putting into the ground.

A high-speed rainbow

Fortunately, such a device is at hand. My colleagues and I have demonstrated a new fingernail-sized chip that can transmit data at 40 Tbps through a single optical fibre connection of the same kind used in the NBN. That's about three times the record data rate for the entire NBN network and about 100 times the speed of any single device currently used in Australian fibre networks.

The chip uses an “optical micro-comb” to create a rainbow of [infrared light](#) that allows data to be transmitted with many frequencies of light at the same time. Our [results are published](#) in Nature Communications today.

This collaboration, between [Monash](#), [RMIT](#) and [Swinburne](#) universities in Melbourne, and international partners ([INRS](#), CIOPM Xi'an, [CityU Hong Kong](#)), is the first “field-trial” of an optical micro-comb system, and a record capacity for such a device.

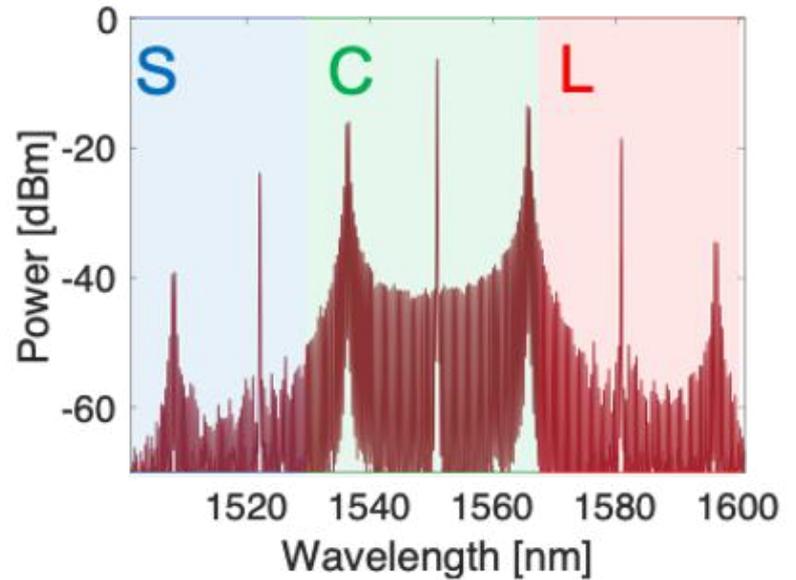
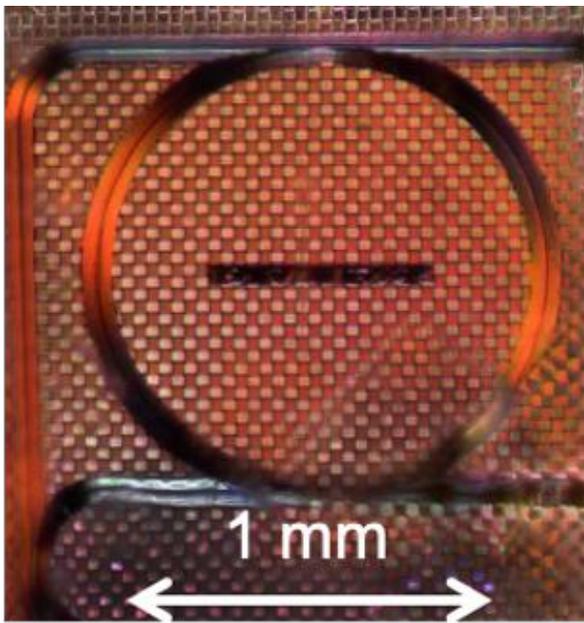
The internet runs on light

Optical fibres have formed the backbone of our communication systems since the late 1980s. The fibres that [link the world together](#) carry light signals that are periodically boosted by [optical amplifiers](#) which can transmit light with a huge range of wavelengths.

To make the most of this range of wavelengths, different information is sent using signals of different infrared “colours” of light. If you've ever seen a [prism split up white light into separate colours](#), you've got an insight into how this works - we can add a bunch of these colours together, send the combined signal through a single optical fibre, then split it back up again into the original colours at the other end.

Making powerful rainbows from tiny chips

Optical micro-combs are tiny gadgets that in essence use a single laser, a temperature-controlled chip, and a tiny ring called an optical resonator to send out signals using many different wavelengths of light.



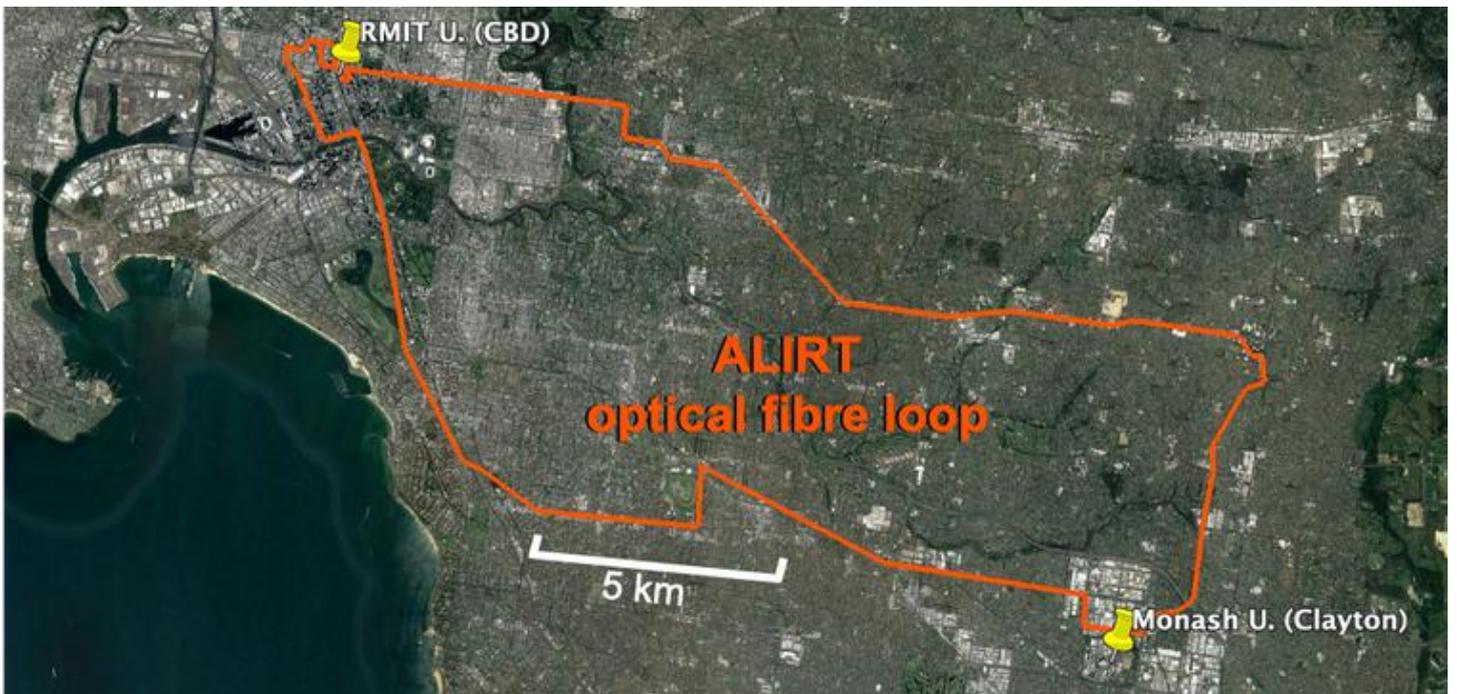
(left) Micrograph of the optical ring resonator on the chip. Launching light from a single laser into this chip generates over 100 new laser lines (right). We use 80 lines in the optical C-band (right, green shaded) for our communications system demonstration.

Corcoran et al, N.Comms, 2020

Optical combs have had a [major impact](#) on a massive range of research in optics and photonics. Optical [micro-combs](#) are miniature devices that can produce optical combs, and have been used in a [wide range of exciting demonstrations](#), including [optical communications](#).

The key to micro-combs are optical resonator structures, tiny rings (see picture above) that when hit with enough light convert the incoming single wavelength into a precise rainbow of wavelengths.

The demonstration



The test was carried out on a 75-km optical fibre loop in Melbourne.

For our demonstration transmitting data at 40 Tbps, we used a novel kind of micro-comb called a “[soliton crystal](#)” that produces 80 separate wavelengths of light that can carry different signals at the same time. To prove the micro-comb could be used in a real-world environment, we transmitted the data through

installed optical fibres in Melbourne (provided by [AARNet](#)) between [RMIT's City campus](#) and [Monash's Clayton campus](#) and back, for a round trip of 75 kilometres.

This shows that the optical fibres we have in the ground today can handle huge capacity growth, simply by changing what we plug into those fibres.

What's next?

There is more work to do! [Monash and RMIT](#) are working together to make the micro-comb devices more flexible and simpler to run.

Putting not only the micro-comb, but also the modulators that turn an electrical signal into an optical signal, on a single chip is a tremendous technical challenge.

There are new frontiers of optical communications to explore with these micro-combs, looking at using parallel paths in space, improving data rates for satellite communications, and in making "light that thinks": artificial optical neural networks. The future is bright for these tiny rainbows.

We gratefully acknowledge support from Australia's Academic Research Network ([AARNet](#)) for supporting our access to the field-trial cabling through the Australian Lightwave Infrastructure Research Testbed (ALIRT), and in particular Tim Rayner, John Nicholls, Anna Van, Jodie O'Donohoe and Stuart Robinson.

[Bill Corcoran](#), Lecturer & Research Fellow, Monash Photonic Communications Lab & InPAC, [Monash University](#)

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[The coronavirus pandemic is boosting the big tech transformation to warp speed](#)

Zac Rogers, [Flinders University](#)

The coronavirus pandemic has sped up changes that were already happening across society, from [remote learning](#) and [work](#) to [e-health](#), [supply chains and logistics](#), [policing](#), [welfare](#) and beyond. Big tech companies have not hesitated to [make the most](#) of the crisis.

In New York for example, former Google chief executive Eric Schmidt is [leading a panel](#) tasked with transforming the city after the pandemic, “focused on telehealth, remote learning, and broadband”. Microsoft founder Bill Gates has also been [called in](#), to help create “a smarter education system”.

The government, health, education and defence sectors have long been prime targets for “digital disruption”. The American business expert [Scott Galloway](#) and others have argued they are irresistible pools of demand for the big tech firms.

As author and activist [Naomi Klein writes](#), changes in these and other areas of our lives are about to see “a warp-speed acceleration”.

All these transformations will follow a [similar model](#): using automated platforms to gather and analyse data via online surveillance, then using it to predict and intervene in human behaviour.

The control revolution

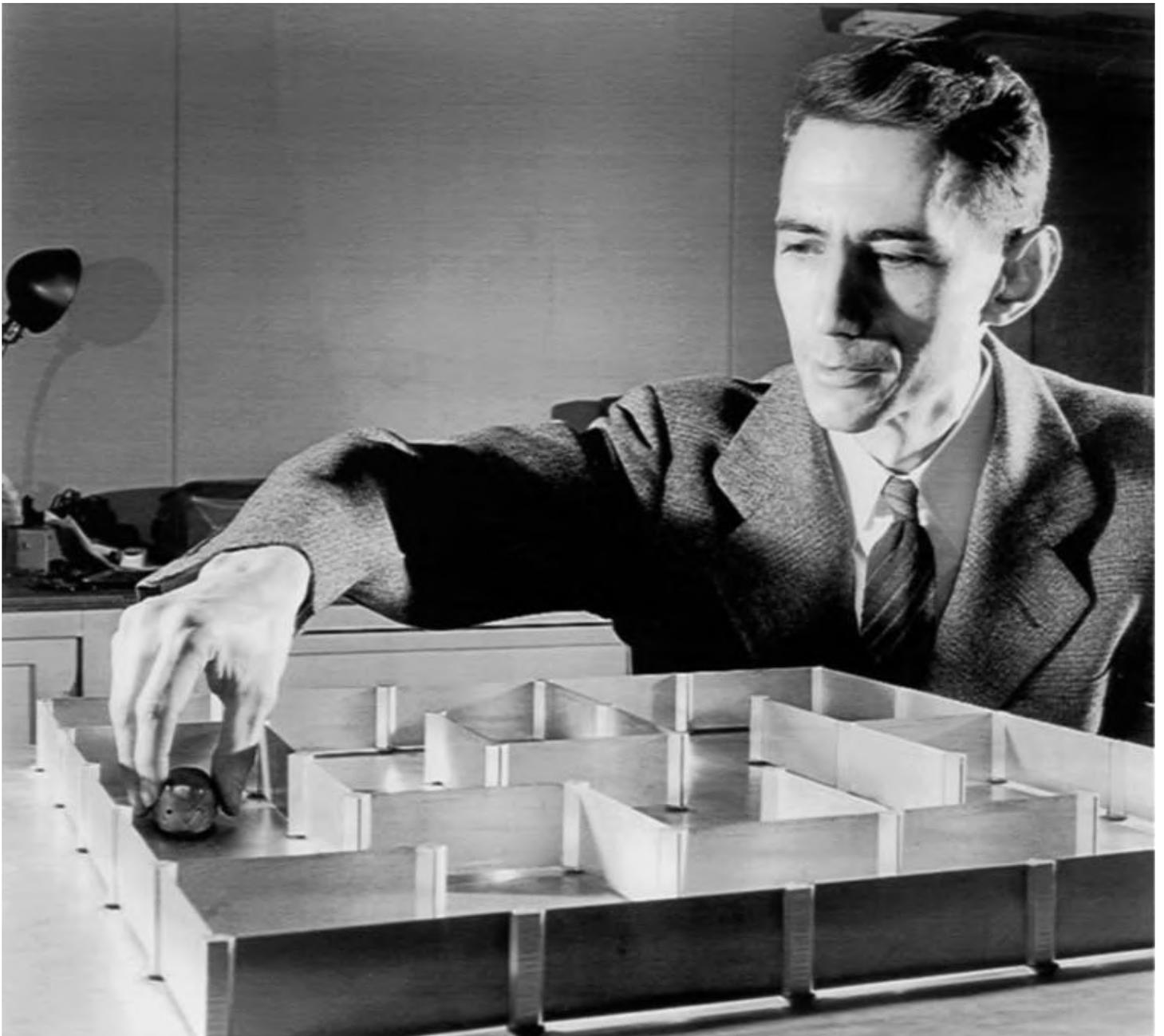
The changes now under way are the latest phase of a socio-technical transformation that sociologist James Beniger, writing in the 1980s, [called a “control revolution”](#). This revolution began with the use of electronic systems for information gathering and communication to facilitate mass production and distribution of goods in the 19th century.

After World War II the revolution accelerated as governments and industry began to embrace cybernetics, the scientific study of control and communication. Even before COVID-19, we were already in the “[reflexive phase](#)” of the control revolution, in which big data and predictive technologies have been turned to the goal of automating human behaviour.

The next phase is what we might call the “[uberisation](#) of everything”: replacing existing institutions and processes of government with computational code, in the same way Uber replaced government-regulated taxi systems with a smartphone app.

Information economics

Beginning in the 1940s, the work of information theory pioneer [Claude Shannon](#) had a deep effect on economists, who saw analogies between signals in electrical circuits and many systems in society. Chief among these new information economists was [Leonid Hurwicz](#), winner of a 2007 Nobel Prize for his work on “mechanism design theory”.



Information theorist Claude Shannon also conducted early experiments in artificial intelligence, including the creation of a maze-solving mechanical mouse.

[Bell Labs](#)

Economists have pursued analogies between human and mechanical systems ever since, in part because they lend themselves to modelling, calculation and prediction.

These analogies helped usher in a new economic orthodoxy formed around the [ideas of F.A. Hayek](#), who believed the problem of allocating resources in society was best understood in terms of information processing.

By the 1960s, Hayek had come to view thinking individuals as [almost superfluous](#) to the operation of the economy. A better way to allocate resources was to leave decisions to “the market”, which he saw as an omniscient information processor.

Putting information-processing first turned economics on its head. The economic historians Philip Mirowski and Edward Nik-Khah [argue](#) economists moved from “ensuring markets give people what they want” to insisting they can make markets produce “any desired outcome *regardless of what people want*”.

By the 1990s this orthodoxy was triumphant across much of the world. By the late 2000s it was so deeply enmeshed that even the global financial crisis - [a market failure of catastrophic proportions](#) - could not

dislodge it.

Market society

This orthodoxy holds that if information markets make for efficient resource allocation, it makes sense to put them in charge. We've seen many kinds of decisions turned over to automated data-driven markets, designed as [auctions](#).

Online advertising illustrates how this works. First, the data generated by each visitor to a page is gathered, analysed and categorised, with each category acquiring a predictive probability of a given behaviour: buying a given product or service.

Then an automated auction occurs at speed as a web page is loading, matching these behavioural probabilities with clients' products and services. The goal is to "nudge" the user's behaviour. As [Douglas Rushkoff](#) explains, someone in a category that is 80% likely to do a certain thing might be manipulated up to 85% or 90% if they are shown the right ad.

This model is being scaled up to treat [society as a whole](#) as a vast signalling device. All human behaviour can be taken as a bid in an invisible auction that aims to optimise resource allocation.

To gather the bids, however, the market needs ever greater awareness of human behaviour. That means total surveillance is here to stay, and will get more intense and pervasive.

Growing surveillance combined with algorithmic interventions in human behaviour [constrain our choices](#) to an ever greater extent. Being nudged from an 80% to an 85% chance of doing something [might seem innocuous](#), but that diminishing 20% of unpredictability is the site of human creativity, learning, discovery and choice. Becoming more predictable also means becoming more fragile.

In praise of obscurity

The pandemic has pushed many of us into doing even more by digital means, hitting fast-forward on the growth of surveillance and algorithmic influence, bringing more and more human behaviour into the realm of statistical probability and manipulation.

Concerns about total surveillance are often couched as discussions of privacy, but now is the time to think about the importance of [obscurity](#). Obscurity moves beyond questions of privacy and anonymity to the issue, as [Matthew Crawford](#) identifies, of our "qualitative experience of institutional authority". Obscurity is a buffer zone - a space to be an unobserved, uncategorised, unoptimised human - from which a citizen can enact her democratic rights.

The onrush of digitisation caused by the pandemic may have a positive effect, if the body politic senses the urgency of coming to terms with the widening gap between fast-moving technology and its [institutions](#).

The algorithmic market, left to its optimisation function, may well eventually come to see obscurity an act of economic terrorism. Such an approach cannot form the basis of institutional authority in a democracy. It's time to address the real implications of digital technology.

[Zac Rogers](#), Research Lead, Jeff Bleich Centre for the US Alliance in Digital Technology, Security, and Governance, [Flinders University](#)

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[Member Tips and Tricks](#)

Graham Swanston

Ed: Thanks to Graham once again for sending these tips and tricks in. If you have any info about software, websites, or hints about an operating system that you think members might benefit from, send it to editorpc@melbpc.org.au.

File Hippo

<https://www.filehippo.com>

The File Hippo site is useful and filters itself for malware but there are traps. Some options demand a donation. What happens at the end of a free trial? If there is a small initial payment there may be a clause in the fine print with the power to bill annually. A Google search for freeware can give good results, with a caution.

Some freeware sites try twisting your arm to purchase the "Pro" version. There seems to be little advantage and the help function may only be a FAQ. The other trap is bundleware that you do not need.

CC Cleaner

<https://www.ccleaner.com>

Select the slim or free version. You may not need the so called pro or enterprise version which has a hidden clause providing for an automatic update fee.

After opening, use the custom option so that the registry is untouched. The registry uses little space and some of the files are shared. Without using this, this program, or an equivalent, the main drive will become over loaded with junk and a burden on backups.

IOBit Software Updater

<https://www.iobit.com/en/iobit-software-updater.php>

This is excellent for checking if your principal software is the latest version or needs updating.

Core Temperature (Core Temp)

<https://www.alcpu.com/CoreTemp/>

This is rarely used but gives a reading which checks for any elevation. There is always a risk if a tower pc is on the floor. Internal dust can be removed with a small special vacuum or a compressed air aerosol.

Advanced System Care

<https://www.iobit.com/en/advancedsystemcarefree.php>

In the options avoid touching the registry for the reasons given above. Using this program about once a week, or less, is probably often enough. A solid-state drive does not need to be defragmented.

Belarc Advisor

https://www.belarc.com/products_belarc_advisor

This is rarely used but it is one way of checking what is under the bonnet so to speak.

Internet Download Manager (IDM)

<https://www.internetdownloadmanager.com/>

This is wonderfully useful for downloading a video or a large program such as a game. The download function is spread over about 8 servers. If a program is lost it can be reopened if you have kept the listing.

Drive Booster 7

<https://www.iobit.com/en/driver-booster.php>

This is a ready means of checking if drivers are up to date for printers and other components.

System Backup

There is a wide selection of freeware available. Macrium (<https://www.macrium.com/reflectfree>) is one but it is slow and clunky and lacks some features.

Acronis True Image (<https://www.acronis.com/en-au/personal/computer-backup/>) is not free but it has many merit points. It appears to update itself. It can create boot media such as on to a memory stick or a RW DVD drive. It works well by backing up on to external drives to be stored away from the computer. The custom and full options work well. Incremental or scheduled options could be complicated.

Advertisement and Pop Up Blocking

Sometimes a pop up is part of a needed response. Ads often only last for a few seconds.

Disk Life

There is a freeware program (<http://www.drivehealth.com/>) to estimate disk life. An SSD has no moving parts. An external drive used just for a regular backup is not running 24/7.

Norton 360

<https://au.norton.com/products/norton-360-standard>

This is a versatile and comprehensive subscription program. Some of the features are also available as freeware such as the McAfee site checker. There is no need to purchase a multi-user or enterprise version if you only need to protect one PC or laptop.

When you are browsing you see if a site has been checked or has a warning.

For good housekeeping, one can click on security and download updates regularly, and also do a cloud backup.

There is a quick scan feature to check for common prevalent malware. It has never found any. There is a full system scan available. It is very time consuming and has never found anything.

Need more help or advice? Try iHelp

Leighton West

We are the RACV of the Computer World

An absolutely 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.

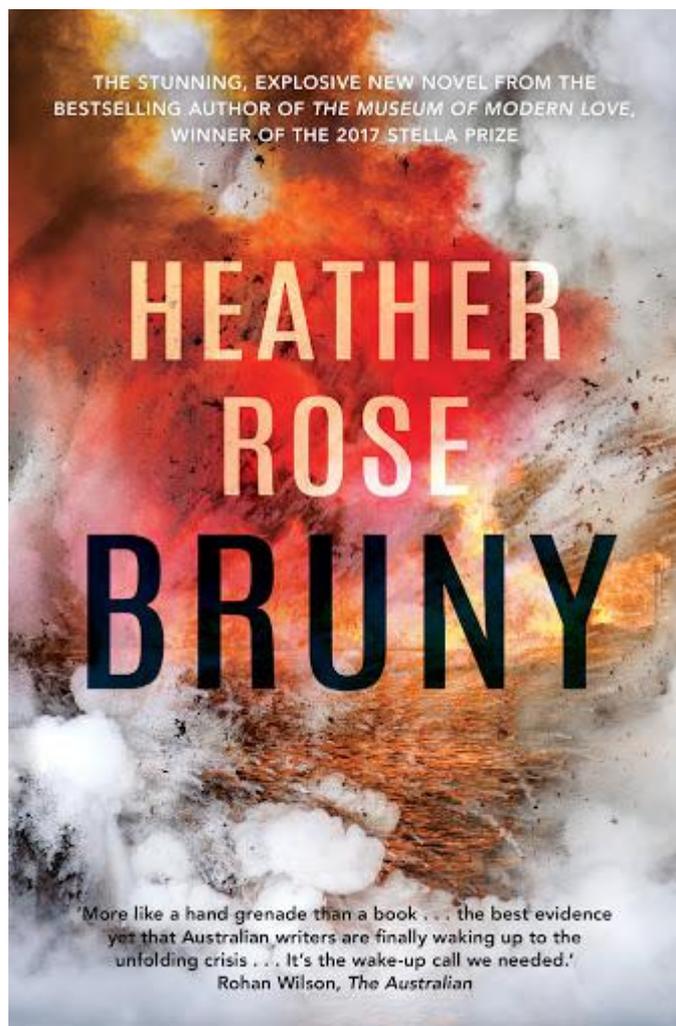
We are available most days 10am to 3pm Weekdays, Holidays, Public Holidays, and often over the weekend. In fact the only day when you probably won't get a response is Christmas day. Try us next time you have a computer problem!

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>

Book Review

Bill Chandler



'Bruny'

Heather Rose, 2019, Allen and Unwin

What a prescient novel! Infrastructure, regional planning, political shenanigans, foreign interference, and even the mention of a virus. Heather Rose has written a thriller with more credibility than I was comfortable with as I sat on my North Bruny deck looking over the D'Entrecasteaux Channel to Tinderbox on the Tasmanian mainland. A serene and beautiful location: an island, off an island, off an island. I had a clear view of the massive bridge which was the subject of this novel, except there was no bridge, because it's a fictional story, isn't it?

The new world order is subtly on display. A Federal Government makes gung-ho, albeit secret, assumptions about how to find its place in the new world order, to gain power, keep power, and exercise power, with a degree of incredulity which would make anyone already cynical about politicians and their advisors go red in the face. Splashing a cool \$2 billion dollars on a super-size design award-winning bridge linking a very small island at the end of the earth with Hobart, a city of less than a quarter of a million people. Nothing fishy here. Nothing to see, move along. What could go wrong?

The prologue sets the scene: a bomb, sabotage, badly damages the nearly finished bridge, but not beyond repair. Who dun it? Everyone is suspect. The first chapter introduces Astrid, a United Nations conflict resolution specialist. She escaped Tasmania many years ago and was resistant to become involved, but

she was persuaded to 'come back home' to smooth the way so the bridge could be repaired and opened before election day.

The project is urgent. The Feds have provided the money. A State election is just a few months away. Both the State Government and the Opposition support this 'critical infrastructure which will define the new Tasmania'. Notwithstanding the questionable logic of the project, they just need to ignore and overcome the noisy landowners and environmental protesters and ignore the Greens (even though they are doing very well in the polls). Divide the conflicted unions who want the work, but don't want the imported foreign workers deemed necessary to finish the project before election day. Appoint special task forces to make sure that the construction meets the less than transparent economic and political imperatives, and avoid any negative media, even if death is involved. Keep in mind: this is a novel.

Now safely back in self-isolation in suburban Melbourne, I am reading 'Bruny' a second time - because it is very well written, and paints in accurate details the place I was in as well as the wider world context. Not for the first time, a fictional book or film or play can provide more insight into real life than everyday working as a Planner. This novel asks the challenging question 'what would you do to protect the place you love? Frequently required to assess how the prioritisation of infrastructure projects are determined, I am left with a niggling feeling that perhaps 'Bruny' is a documentary, in the same way, that TV's 'Utopia' is a documentary rather than a work of fiction.

Reprinted with permission from the May 2020 edition of the Planning Institute of Australia's monthly magazine, Planning News.

[DOTW Winners May 2020](#)

Roger Brown

DOTW is a lighthearted look at some of the sillier events of the week. Don't take it too seriously and do pop over to Chit Chat and vote each week. Thanks to those of our members who occasionally 'feature' for taking the gentle humour in such good part.

Australia's drug regulator, the **Therapeutic Goods Administration**, for dropping its investigation into newspaper advertisements taken out by the former federal politician Clive Palmer that described a drug unproven in the treatment of COVID 19 as a "cure".

The Australian chapter of the **Genesis II Church of Health and Healing** which is selling chlorine dioxide - marketed as Miracle Mineral Solution - online. The website selling the product in Australia states the solution is the formulation "approved" by church founder, Jim Humble.

The **more than 100 protesters** who opposed coronavirus lockdown measures, despite warnings from Victorian police earlier this week to stay home.

Colourful billionaire **Clive Palmer** who after being refused entry into Western Australia is threatening a High Court challenge to the state's strict state border closure.

The Federal Government for changes which will allow the regulation of new chemicals entering the Australian marketplace to be left in the hands of private industry from next week, as a major overhaul of chemical regulation takes effect.

[Yammer Highlights May 2020](#)

Dennis Parsons

NBN Questions and Comments

NBN speeds higher than 100Mbps are finally here! 250Mbps and 1000Mbps plans are available for those of us lucky enough to have FTTP and for some HFC connections. If you're using FTTN you're totally out of luck - you'll have to wait until that gets replaced with appropriate technology. For FTTC connections it's not possible now but may become available if the system is upgraded, but I wouldn't hold my breath on that possibility.

The digital divide between those stuck on FTTN and FTTC, and those with FTTP and HFC will become increasingly wide, something that was inevitable when the government chose the false economy of the Multi Technology Mix (MTM) route.

Roger, one of our Yammer regulars, discovered he could upgrade his HFC based service to 250Mbps and gleefully reported getting 230Mbps down and 23Mbps up on a 250/25 plan. Not bad at all! 1000Mbps wasn't an option offered to him by his provider but he's certainly happy with the increased speed.

<<https://www.yammer.com/melbpc.org.au/#/Threads/show?threadId=696199551623168>>

Computer Help

We managed to revive a laptop that Frank was about ready to consign to the bin in frustration due to WiFi connectivity issues and problems starting up when on battery. Not 100% sure what we did but something worked! As with many such problems you lose track of exactly what was done in what order or what actually cured a particular problem.

It was suffering intermittent Internet dropouts that wouldn't self recover - WiFi was showing as connected but the Internet was inaccessible. Testing with ping showed IP addresses could be reached but not URLs, indicating a possible DNS issue. It also indicated the hardware was probably still okay. WiFi signal congestion was also suggested as a possible problem but scans with a WiFi app didn't indicate a problem. I suggested getting Windows to "forget" the WiFi settings and re-entering them which seems to have cured the issue.

As to exactly what we did to fix the start-up problem we have no idea! The battery was removed from the laptop for a time and run from mains power without it. After the battery was reinserted the system behaved itself and was starting properly, no blue screens and no having to remove the battery to get it started.

<<https://www.yammer.com/melbpc.org.au/#/Threads/show?threadId=683582203379712>>

Technology News

The use of the what3words app to help locate some missing walkers on Flinders Island in Tasmania sparked a bit of interest. Seems very handy for indicating your exact location - you can either use a GPS derived location or indicate your position on a map and the app will generate a unique triplet of words for your position to within three metres.

<<https://www.yammer.com/melbpc.org.au/#/Threads/show?threadId=677192000495616>>

June Calendar

Sun	Mon	Tue	Wed	Thu	Fri	Sat
Legend SIG meeting at Melb PC HQ, Moorabbin. Non-Moorabbin meeting. Meeting Cancelled To be Confirmed – ask SIG leader Meeting Confirmed Changed Details Video Conference	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/		Have A Question Post it on Yammer Yammer: http://yammer.com/melbpc.org.au/	?? ?? SIG ?? 9:30am - 12noon ?? SIG Mount Waverley 10am - 12noon	?? ?? SIG ?? 11am - 2pm
??	??	??	??	??	??	??

Video Conference Your SIG might be “meeting” online, where you join the online meeting from your home. Check with your meeting leader &/or see resources at: <https://www.melbpc.org.au/sigs/about/recent-changes>

The monthly calendar is not here in PC Update.

However, it is in the usual place, on the club website homepage:

- <https://www.melbpc.org.au/>
- see **Quick Links** in the left column

Our change here is due to the **Covid-19** situation. Many of our SIG meetings are now **online “virtual” meetings** until we can return to physical meetings.

With possible new government announcements, big changes to our meeting plans are likely during the month, so there could be **frequent updates to our Calendar** on our website.

Home About Us SIGs Monthly Meeting Member Login

CORONA VIRUS:
 Many meetings are now **ONLINE**, others cancelled.
 Details [here](#)
 How-to guides for online meetings are [here](#)
 Club rooms closed until further notice

Quick Links

Monthly Meeting Details
 Our Monthly Meetings are held on the first Wednesday of the month.

Current Notices
 The latest News for Members

Latest Monthly Calendars

MAY-2020 – V2 (updated-28-apr-2020)

JUN-2020 – V1.2 (updated-28-may-2020)

Melbourne PC
 Members Helping Members

We have many subgroups (SIGs) whose members meet on a regular basis on particular interests.

We also have a get together once a month in our clubrooms where we have speakers from our club give talks and demonstrations on computing and society.