

> PC Update

August 2022



From The Editor August 2022	2
Taking Technology Too Personally	3
Posters with Canva	5
Publishers vs the Internet Archive: why the world's biggest online library is in court over digital book lending	7
Even if TikTok and other apps are collecting your data, what are the actual consequences	10
Zooming	13
Interesting Internet Finds	14
Book Review: How To Stay Smart In a Smart World	15
East SIG Report June 2022	17
East SIG Report July 2022	27

From The Editor August 2022

Hugh Macdonald

Dear Readers,

Firstly my sincere apologies for not getting an official issue out in July. The June issue came out belatedly in early July and I lacked the energy to get another issue out by the end of the month. So instead an issue has come out now, at the end of August.

Thankfully my health is now much improved from what it was at the start of July and I don't expect it to be a problem in getting issues out on time for the rest of the year. I thank you for your patience in what has been an uneven year for PC Update and I look forward to producing some quality issues for you between now and the end of the year.

This one has some good features in it, and it's particularly good to see two East SIG reports from Neil Muller full of handy tips about different software and devices that you will undoubtedly enjoy reading. There's also some great poetry from Barry Horn that encapsulates some of our experiences during the pandemic of the last few years. And Tim McQueen has returned with an interesting book review.

So enjoy the issue, and look out for the next issue towards the end of September.

All the best for the month,

Hugh

Taking Technology Too Personally

Greg Skalka

When I was growing up, there seemed to be more universal and unifying experiences in our lives related to technology. Today, we had much less tech, but it served us well and was more common in its applications and experiences. While the 'have' and 'have not' divides initially, new devices were often adopted relatively quickly and usually went to fairly high usage levels across society. This provided a common basis of experience for most people.

Television often provided a common topic that many strangers could discuss. With few channels and limited programming, many people were watching the same things. You could talk to your friends about the shows you watched the night before as they likely watched some of the same ones. Telephones were very basic but provided a capability that everyone had to have. The instruments were all similar as Ma Bell controlled the technology and the market. The rotary dial of the phone and the channel knob on the TV provided simple, standard user interfaces. Anyone versed in using a phone or TV set could likely operate anyone's phone or TV. Driving a car was the same; with its standardized controls, any driver could drive almost any vehicle and use most of the accessories). Our homes had very standardized appliances and lighting systems, providing a common user experience.

Today we have much more technology, much more complex technology, and more diverse technology. In addition to more capabilities, we have more choices, with more competition in the marketplace. As a result, there is much less standardization and much more personalization. Choice can be good, but with more options, there is often less consensus. There are more ways to personalize your experiences, which means fewer people use the same things, watch the same things or do the same things. This can result in fewer people caring about the same things as you do. While our technology supposedly enables greater communication, the countless choices, versions, and variations we can have can sometimes be an isolating factor in society.

It is great to have thousands of choices on television, but having a shared cultural baseline is more difficult when everyone watches something different. Choices do not end with content; how you watch can be personal. Fewer people watch "broadcast" television (over the air); we often choose cable, satellite, or streaming. Music is consumed in the same ways with the same multitude of choices. If you do not like what is playing, tell Alexa to skip to the next song. More and more, our entertainment is "on demand." We more often watched shows or listened to music with others; now, we are more likely to consume media individually. Instead of getting together to listen to that new album, we have our personal playlists.

The introduction of the "personal" computer may not have started the trend, but it seemed to accelerate it. First, families used to sit around the radio in the evenings for entertainment; later, the focal point was the living room television. The personal computer pushed everyone to their own devices. I remember having four computers in our house when our two children lived with us. Now there are only two of us here, but we do have more than four computers in the house.

Smartphones are the ultimate in "personal" devices. Almost everyone has one. However, they are not the same; they could be iPhone or Android, and any number of makes, models, and screen sizes. Even the exact same phones can be loaded with personalized apps, photos, media, and cases. But, unfortunately, no one shares them, so everyone is alone with their individualized device. I have seen this sad scene far too many times: a family out at a restaurant, and each member, while sitting together, is intently manipulating their smartphones. And they do not appear to be communicating with each other.

There are now so many choices in the tech world and so few standards. Email used to be fairly standardized. Remember the AOL voice saying, "You've got mail." It was once so culturally universal that it was the title of a movie. Now there are so many email clients, web hosts, and types of devices to get mail

on that everyone's email experience can be unique. I do not know if that is good or bad, but it is the direction most things are going. It is probably not hard to name five different ways of doing anything: listening to a podcast, viewing a movie, placing a voice call, or writing a document.

Tech companies are just giving us what we want. More choices, more things we "need," more opportunities to buy their products and services. While there can be dominant providers in the market, being dominant does not necessarily make them the best. With so many things to have and so many choices for each, how can anyone optimize their lives? What is the best photo editor? The best streaming service? The best smartphone? The best family car? The best internet provider? These are hard questions to answer as they are. When you add "for me" to the end of each, it gets even more challenging. Do you spend so much time researching your choices that you never get to enjoy your things? By the time you have finished your research, is the item you chose out of date? Do you choose what your friends are using or what you have seen in commercials? Do you keep a suboptimal service because it is a hassle to change?

Our technology is much more powerful but also much more complex. At one time, you simply had to turn on the TV power switch to watch something. Now you may also have to select a signal source, app, or service, using a remote control with dozens of buttons on it. To drive a car, you unlocked the door, put the key in the ignition switch, turned it, put the transmission in gear, and drove. Now you may have a remote fob to unlock it, you may just press a button on the dash to start it (assuming the fob is near), and the pedal you press may inject more fuel into an internal combustion engine or may provide more current from a battery to an electric motor. One day you may just get in and tell the car where you want to go.

As our things become more and more complex, they sometimes do not do what we expect them to. Sometimes this is our fault, as we may not fully understand how to use them. For example, my parents have had to buy a new dishwasher and a new washing machine in the last year, and though the new items are more energy-efficient and do more things, they are more difficult for them to operate. They bought a Samsung dishwasher with the controls on the top edge (rather than the face) of the door. This is confusing even to me. On their old dishwasher, you closed the door and set the controls to run it. You set it to run on this new one and then close the door, as the controls are inaccessible with the door closed. Their old clothes washer had a big knob on the panel to control it; the new one has buttons to move LED indicators to set modes. It does more but is more difficult to figure out how to set it.

Other times, our devices are so complex they do not operate stably and consistently. Unfortunately, what works today may not work the same tomorrow with our internet-connected devices, as updates change features, fix bugs, and introduce new bugs. We have many smart home devices in our house, including various Amazon Echo smart speakers and internet-connected light controllers of different brands and styles. I have been using the light device apps to turn on lights at certain times in the morning and then turn them off manually with our Echo Show in the kitchen. Recently I have been having problems controlling the lights through the Echo Show reliably. My wife uses the Show as a timer for cooking. Recently she has been setting timers, but the alarm never goes off. It seems like the Show got a bad update.

With all the choices and options available, tech means something different to each of us. We can tailor our devices and services to our preferences for experiences that are uniquely ours. If our devices do not act the way we want them to, it is unclear who is to blame or who will sympathize.

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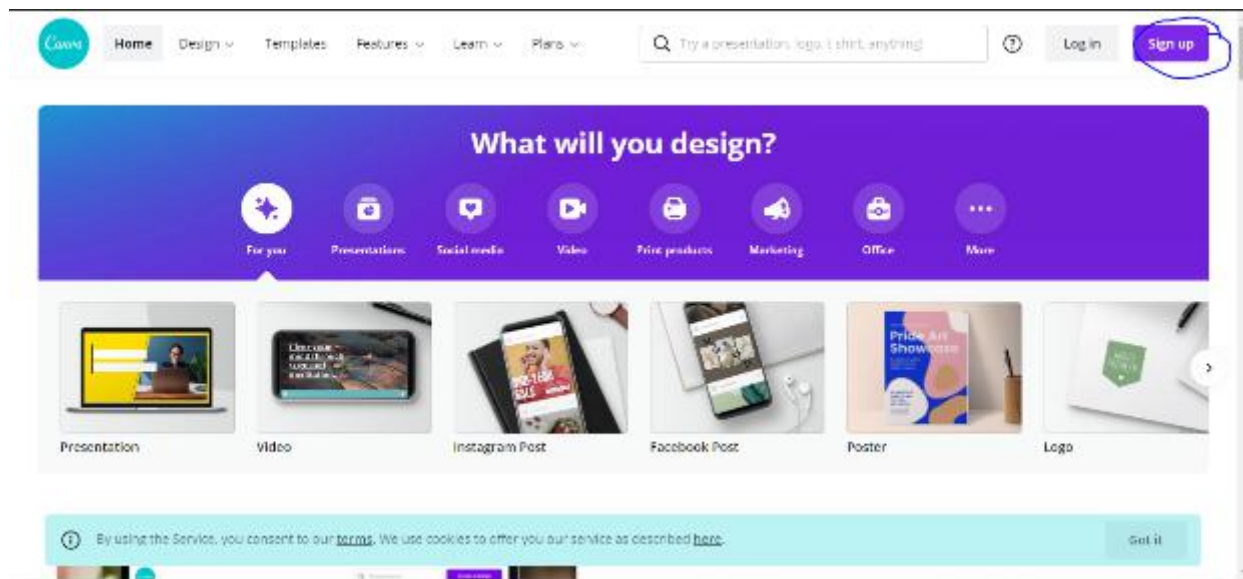
Posters with Canva

Caden and Nathan Kang

Nowadays, many flyers and posters are created and shared online. Canva is an online program that allows you to create posters, flyers, videos, cards, and even social media posts and share them with other people in your community. It also allows multiple people to work on the same document, so a group of people can all collaborate on the project at the same time.

Getting started

To create an account on Canva, click on the “Sign Up” button on the main page. Afterward, you can choose to either connect Canva with your Google or Facebook account or sign up with your email.



Choosing a design

There are many designs available on Canva to choose from, which could confuse first-time users. However, in this article, we will be focusing on the poster design. This is because many other designs and templates are almost identical to the poster except for the size.

Creating a poster

To start, click on “Create a Design” in the top right corner after signing in. Then, click “Poster.” If it does not appear on the “Suggested” menu, you can manually type it into the search bar. From there, you should be directed to a page similar to the one here:



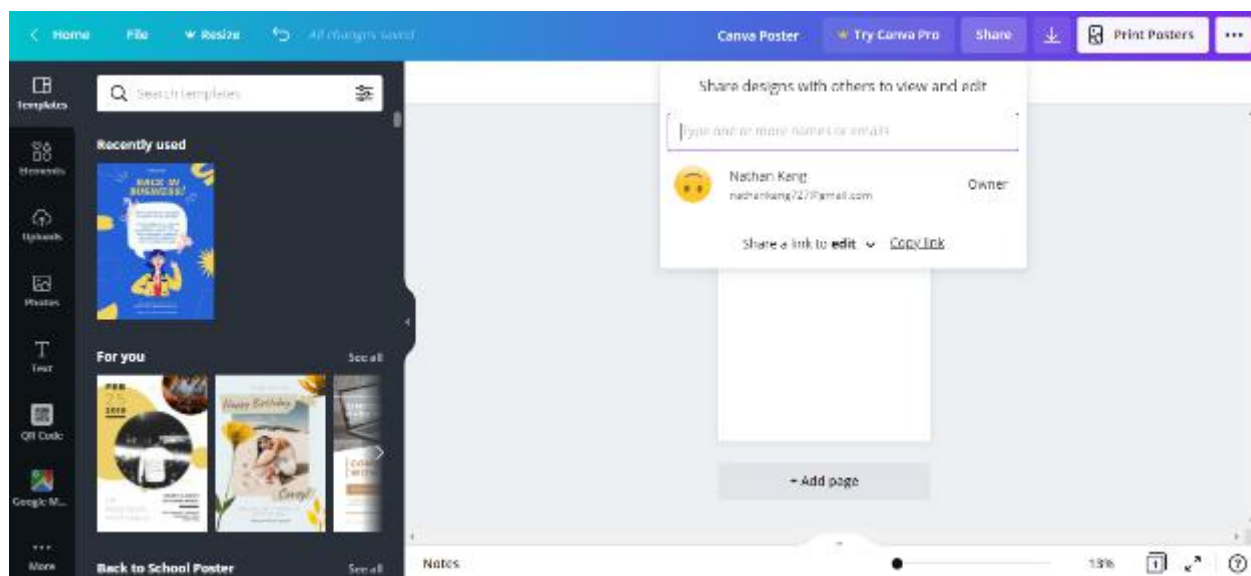
1. The name of your poster: Initially, it will be “Untitled,” but you can change the name by clicking on it and then entering the name you wish the poster to be called.
2. Templates: Canva has several pre-made templates for various posters, such as advertisements, lost dog, and COVID-19 awareness posters. Click on the template you desire, and it will be displayed on the screen as your poster.
3. Elements: These are lines, shapes, photos, videos, and audio that Canva provides. If you purchase Canva Pro, you will have access to more of these elements. To add an element to your poster, drag and drop the element you wish to include to the one you created.
4. Uploads: This function allows you to upload your own images, video, and audio to your poster if you

don't like the provided options or if you want to personalize your poster more. After clicking on the button, select whether you wish to upload an image, video, or audio and then click "Upload Media." Next, choose whether to upload from your device, Facebook, Google Drive, Instagram, or Dropbox. Then, click on the file. It will appear on the menu, and you can just drag and drop the files onto the poster.

5. Text: This button allows you to drag a textbox onto the poster. There are many different fonts available, and Canva Pro will unlock even more fonts to use.
6. More: Clicking on this button will allow you to use content from other apps like Facebook and even Google Maps. You can also create a QR Code that will direct people to a URL they can scan with their phone's camera.
7. This is the menu. You can drag and drop items from the menu onto the poster to add them. To close the menu, simply click on the arrow facing left. To reopen the menu, click on any of the buttons on the far left (such as Template, Elements, etc.).
8. This is your poster, which is what will be seen by others when you share it with them. You can drag and drop items from the menu onto the poster.
9. These two buttons are to add more pages to your poster. The first one on the left will duplicate the current page, while the one on the right will simply add another page. You can also add another page using the "+ Add Page" below the poster.
10. This is to zoom in or out of the poster to make it larger or smaller or see it as a whole.

Sharing Posters

One of the great things about Canva is that you can share your poster with other people and even work on the same poster together at the same time. After you have created your poster, simply click on the Share button towards the top right corner. When you click on the Share button, a menu like this appears:



You can type in the email addresses of people you want to add to the Canva poster and change whether you want them to edit, use your poster as a template, or only view it. Afterward, they will be sent an email through which they can open your poster. Keep in mind that the people that you add must also have Canva accounts.

You can also add them to be a part of your team. Any designs that the team has collaborated on will be available to every member.

These are just the basics for creating your own poster on the Canva platform! Its ability to allow multiple people to work on a document at a time is quite practical. It is a perfect opportunity for you to create stunning projects with others.

Publishers vs the Internet Archive: why the world's biggest online library is in court over digital book lending

Joanne Gray, *University of Sydney* and Cheryl Foong, *Curtin University*

Earlier this month, the Internet Archive asked a US court to end a lawsuit filed against it by four large book publishers.

The Internet Archive is a not-for-profit organisation founded in 1996 that lends digital copies of books, music, movies and other digitised content to the public. It aims to support people with print disabilities, preserve digital content for future generations and democratise access to knowledge.

The publishers say the Internet Archive's digital lending practices amount to wilful copyright infringement. Authors have also complained the site hosts pirated content.

The Internet Archive says it is behaving like an ordinary library, as it only loans digital copies of physical books it owns. Its supporters at the Electronic Frontiers Foundation say the publishers simply want "to control how libraries may lend the books they own".

The National Emergency Library

Publishers were particularly concerned about the "National Emergency Library" set up by the Internet Archive in March 2020. This temporary project aimed to give teachers access to digital teaching materials in the face of widespread library closures due to the COVID-19 pandemic.

In June 2020, the publishers Hachette, Penguin Random House, HarperCollins and John Wiley & Sons filed a copyright infringement action. The publishers appear to want to shut down not just the National Emergency Library, but all of the Internet Archive's book-lending practices.

The publishers claim the Internet Archive is engaging in wilful mass copyright infringement by lending digital books without permission from and payment to publishers.

The Internet Archive argues that, because it allows only one person at a time to borrow a digital book, it is simply replicating regular library lending. However, this restriction was temporarily relaxed for the National Emergency Library.

Ordinary library lending does not require a payment to publishers. Once a library purchases a book, the library is free to lend it out to its members.

The publishers are arguing that digital books are not equivalent to physical books and should be treated differently under the law.

Copyright déjà vu?

Didn't Google already win the argument about digital books years ago? Yes and no.

Google began digitising library books in 2002. In 2005, book publishers and authors brought a high-profile lawsuit against Google for copyright infringement, which took a decade to resolve.

In the case against Google, US courts decided that making full copies of books and displaying snippets of

those books to the public in the Google Books database is a “fair use”.

When deciding for Google, the courts paid particular attention to the historical purpose of copyright, which is to serve the public interest in access to knowledge.

A question of markets

But the Google Books decision does not mean book publishers will lose again against the Internet Archive.

In the United States, when deciding whether a use is fair or not, courts need to consider the extent to which the copyright owner’s markets are harmed.

Because book publishers often lend e-books commercially (including to libraries), the Internet Archive could be seen as harming that aspect of publishers’ market.

It could be said that, by providing online access to books in full, the Internet Archive is doing for free what the publishers do for payment.

This is different to the Google Books decision, in which providing access to snippets of books in Google’s database was considered to potentially enhance the market for books.

What counts as fair use?

The flexibility of fair use is one thing the Internet Archive has on its side, however.

There is room for the court to assess the public benefit of the Internet Archive’s lending practices which, as the National Emergency Library exemplifies, are undeniably strong.

Assessing whether the public interest arguments are strong enough to overcome the weight of the market harm may be key to deciding who wins this case.

The Internet Archive may also have difficulty establishing that its practices are simply an extension of the traditional role of libraries, and beyond the boundaries of publisher’s legitimate markets.

In a case in 2013 involving a “second-hand” market for digital copies of music, US courts decided that emulating analogue models of dissemination was not enough to evade copyright infringement.

Access matters in the digital age

Underlying this recent dispute is a now decades-old tension between media industries born before and after the advent of the internet.

Prior to the internet, media and entertainment businesses made money by selling individual copies of content (think books, CDs, DVDS).

But individual copies have lost value in the internet era. Online, we seek access to content rather than ownership of copies of content.

In the music and video industries, subscription or ad-supported streaming services such as Spotify and Netflix have largely prevailed.

However, the lawsuit against the Internet Archive shows we have not yet, in 2022, found the right legal and economic settings for access-based book-publishing models to thrive.

Finding a way forward

Entities like Internet Archive have been trying to operate in the grey area between old and new by, for example, limiting access to match the number of print books in storage.

Rather than aiming to eliminate these grey areas, publishers should look to these activities as evidence of unmet demand and a failure to be agile in times of crisis.

Publishers should adapt their dissemination models to the needs of society.

Rather than institute restrictive terms and conditions for access, they should work with libraries to build sustainable models for dissemination that ensure books are available to people who need access to our shared knowledge and culture. .

Joanne Gray, Lecturer in Digital Cultures at The University of Sydney, *University of Sydney* and Cheryl Foong, Senior Lecturer in Law, *Curtin University*

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Even if TikTok and other apps are collecting your data, what are the actual consequences

Ausma Bernot, *Griffith University*

By now, most of us are aware social media companies collect vast amounts of our information. By doing this, they can target us with ads and monetise our attention. The latest chapter in the data-privacy debate concerns one of the world's most popular apps among young people – TikTok.

Yet anecdotally it seems the potential risks aren't really something young people care about. Some were interviewed by The Project this week regarding the risk of their TikTok data being accessed from China.

They said it wouldn't stop them using the app. "Everyone at the moment has access to everything," one person said. Another said they didn't "have much to hide from the Chinese government".

Are these fair assessments? Or should Australians actually be worried about yet another social media company taking their data?

What's happening with TikTok?

In a 2020 Australian parliamentary hearing on foreign interference through social media, TikTok representatives stressed: "TikTok Australia data is stored in the US and Singapore, and the security and privacy of this data are our highest priority."

But as Australian Strategic Policy Institute (ASPI) analyst Fergus Ryan has observed, it's not about where the data are *stored*, but who has *access*.

On June 17, BuzzFeed published a report based on 80 leaked internal TikTok meetings which seemed to confirm access to US TikTok data by Chinese actors. The report refers to multiple examples of data access by TikTok's parent company ByteDance, which is based in China.

Then in July, TikTok Australia's director of public policy, Brent Thomas, wrote to the shadow minister for cyber security, James Paterson, regarding China's access to Australian user data.

Thomas denied having been asked for data from China or having "given data to the Chinese government" – but he also noted access is "based on the need to access data". So there's good reason to believe Australian users' data *may* be accessed from China.

Is TikTok worse than other platforms?

TikTok collects rich consumer information, including personal information and behavioural data from people's activity on the app. In this respect, it's not different from other social media companies.

They all need oceans of user data to push ads onto us, and run data analytics behind a shiny facade of cute cats and trendy dances.

However, TikTok's corporate roots extend to authoritarian China – and not the US, where most of our other social media come from. This carries implications for TikTok users.

Hypothetically, since TikTok moderates content according to Beijing's foreign policy goals, it's possible TikTok could apply censorship controls over Australian users.

This means users' feeds would be filtered to omit anything that doesn't fit the Chinese government's agenda, such as support for Taiwan's sovereignty, as an example. In "shadowbanning", a user's posts appear to have been published to the user themselves, but are not visible to anyone else.

It's worth noting this censorship risk isn't hypothetical. In 2019, information about Hong Kong protests was reported to have been censored not only on Douyin, China's domestic version of TikTok, but also on TikTok itself.

Then in 2020, ASPI found hashtags related to LGBTQ+ are suppressed in at least eight languages on TikTok. In response to ASPI's research, a TikTok spokesperson said the hashtags may be restricted as part of the company's localisation strategy and due to local laws.

In Thailand, keywords such as #acab, #gayArab and anti-monarchy hashtags were found to be shadowbanned.

Within China, Douyin complies with strict national content regulation. This includes censoring information about the religious movement Falun Gong and the Tiananmen massacre, among other examples.

The legal environment in China forces Chinese internet product and service providers to work with government authorities. If Chinese companies disagree, or are unaware of their obligations, they can be slapped with legal and/or financial penalties and be forcefully shut down.

In 2012, another social media product run by the founder of ByteDance, Yiming Zhang, was forced to close. Zhang fell into political line in a public apology. He acknowledged the platform deviated from "public opinion guidance" by not moderating content that goes against "socialist core values".

Individual TikTok users should seriously consider leaving the app until issues of global censorship are clearly addressed.

But don't forget, it's not just TikTok

Meta products, such as Facebook and Instagram, also measure our interests by the seconds we spend looking at certain posts. They aggregate those behavioural data with our personal information to try to keep us hooked - looking at ads for as long as possible.

Some real cases of targeted advertising on social media have contributed to "digital redlining" - the use of technology to perpetuate social discrimination.

In 2018, Facebook came under fire for showing some employment ads only to men. In 2019, it settled another digital redlining case over discriminatory practices in which housing ads were targeted to certain users on the basis of "race, colour, national origin and religion".

And in 2021, before the US Capitol breach, military and defence product ads were running alongside conversations about a coup.

Then there are some worst-case scenarios. The 2018 Cambridge Analytica scandal revealed how Meta (then Facebook) exposed users' data to the political consulting firm Cambridge Analytica without their consent.

Cambridge Analytica harvested up to 87 million users' data from Facebook, derived psychological user profiles and used these to tailor pro-Trump messaging to them. This likely had an influence on the 2016 US presidential election.

With TikTok, the most immediate concern for the average Australian user is content censorship - not direct prosecution. But within China, there are recurring instances of Chinese nationals being detained or

even jailed for using both Chinese and international social media.

You can see how the consequences of mass data harvesting are not hypothetical. We need to demand more transparency from not just TikTok but all major social platforms regarding how data are used.

Let's continue the regulation debate TikTok has accelerated. We should look to update privacy protections and embed transparency into Australia's national regulatory guidelines – for whatever the next big social media app happens to be. .

Ausma Bernot, PhD Candidate, *Griffith University*

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Zooming

Barry Horn

They're calling a meeting and said I should go
but I'm stuck at home, there's a virus you know.
They said not to worry, we're going to Zoom,
it will all be on-line, you can stay in your room.

It was all new to me and I'm sad to relate
I mucked up the passcode and joined them all late.
Then I could see them and they couldn't see me,
I had no idea where that button should be!

It was just bad luck that my phone chose to ring,
it gave me a fright and I dropped the damn thing!
I felt like a coot when the sound went all mute,
they tried to explain, but it wouldn't compute.

By then I had something important to say,
but the time had run out and they'd all gone away.
I promised that next time I'd have it all righted.
They said not to bother, I'd not be invited.

Interesting Internet Finds

Steve Costello

How to Fix Bluetooth Pairing Problems

<https://www.techlicious.com/how-to/how-to-fix-bluetooth-pairing-problems/>

This post title is self-explanatory. I recently switched cell phone carriers and got new phones since then I have had intermittent problems connecting to some Bluetooth devices. I think you will find that this is a useful post to keep handy if you have Bluetooth problems too.

5 Reasons Why You Don't Need To Upgrade Smartphones Every Year

<https://www.makeuseof.com/yearly-smartphone-upgrades/>

Do you think you need to upgrade your smartphone every year? If this is the case, check out this post, which just might get you to change your mind.

How To Increase Flashlight Brightness In Android In 30 Seconds

<https://joyofandroid.com/how-to-increase-flashlight-brightness-in-android/>

I did not know this was even possible until I read this post. Now my Galaxy s21 flashlight is much brighter. (Note: Other android phones may not allow you to change flashlight settings. For those phones, you might need a flashlight app to get a brighter flashlight.)

Always Cary An HDMI Cord When You Travel

<https://www.thestreamingadvisor.com/always-cary-an-hdmi-cord-when-you-travel/>

We are in the midst of the summer travel season so this is a timely article. I know from experience that it is not always an option to screencast while traveling. This post gives a solution to that problem.

Guard Your Digital Rolodex

<https://firewallsdontstopdragons.com/guard-your-digital-rolodex/>

This post is a good reminder to keep your digital information to yourself. The post explains how easy it is to find out a lot of information about you just by phone number usage.

What If I Forget My Passwords If I Use Two-Factor Authentication?

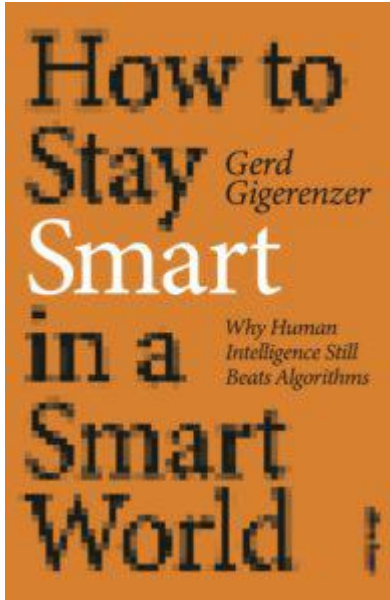
<https://askleo.com/what-if-i-forget-my-passwords-if-i-use-two-factor-authentication/>

I have spoken to some people who are afraid of using two-factor authentication for fear of forgetting their passwords. Leo Notenboom explains that your passwords are separate from two-factor authentication and what you need to do.

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Book Review: How To Stay Smart In a Smart World

Tim McQueen



How to stay smart in a smart world

Gerd Gigerenzer

Allen Lane

312 pp.

Gerd Gigerenzer is Director of the Hamburg Centre for Risk Literacy at the University of Potsdam and a former Professor of Psychology at the University of Chicago. He has written several books to do with risk.

This book is in two parts. The first concentrates on the ‘human affair’ with AI and the second on the high stakes involved. The first chapter looks in detail at dating apps. These have been around for a long time (I remember filling out questionnaires for computer dating programs in the late 60’s). They still rely on the same principles: compare two people’s responses to questions, weight the responses and declare a match. The problems are obvious. People’s responses may not be honest. More importantly, people often react differently when meeting face to face. There are apps that provide photos, but similar reservations apply. Then the suppliers of the apps may use bots to generate phantom users.

In the second chapter, Gigerenzer introduces the concept of the stable-world principle. This is where AI excels: the games of Chess and Go have defined pieces and rules. The most recent version of Go AI was set up with the rules, played against itself multiple times and emerged as a player that can defeat any human or any previous AI. However, this software could not manage a game of Chess.

He looks at how our perception of intelligence has changed. Originally mathematicians such as Gauss were considered paragons of intelligence. But as computers, first human and later machines, became capable of intricate computation our perception shifted towards artistic and creative people as defining intelligence.

Gigerenzer looks at autonomous vehicles. Here the stable-world principle does not exist. A vehicle cannot

predict the likely behaviour of pedestrians – indeed the vehicle does not even have a concept of what a pedestrian is. He uses the example of a small child at the edge of the road. If a human driver sees a parent with the child they understand that it is less likely the child will run into the road. The AI cannot make such an evaluation.

This leads to a discussion of common sense which cannot be coded into any AI. The final chapter of part one looks at big data. One drawback of big data collections is that they are old and riddled with biases. Gigerenzer cites the law of recency: a current data point may be more relevant than a collection of past data. His example is Google's attempt at flu prediction software. The most accurate predictor of flu infection is the most recent data point.

In the second part Gigerenzer examines transparency. Most of the data collected for AI is not available for examination by the casual user. Worse still are the results of neural networks where not even the coders know how conclusions are reached. He has a chapter titled "Sleepwalking into Surveillance". By apathetic default, we are seemingly unconcerned about our movements and habits being tracked.

Gigerenzer describes the psychology of getting users hooked. Research has shown that people perform poorly at tasks if their mobile is nearby even turned off. When required to leave phones inaccessible they do better. This develops into a concern for safety. Allowing mobile phones in cars leads to distracted driving.

Finally he discusses the increasing difficulty of distinguishing fact from fake. We cannot assume that digital natives have the skills to parse all the information they encounter.

This is another important book that should be read by anyone with an interest in current technologies.

East SIG Report June 2022

Neil Muller

Host Frank Maher opened the May meeting, again from home via Zoom. After welcoming members, Frank outlined the nights agenda which is shown below:

Presentation 1: Q&A with George Skarbek

Presentation 2: Creating Short custom URL Links

Presentation 3: TV Evolution to Smart TVs – and all the Jargon

The first presentation of the night was by **George Skarbek** presenting his usual Q&A segment.

Q. I've recently purchased a new HP Victus laptop which came with Windows 11 pre-installed. My preference was to buy a laptop with Windows 10, but Microsoft has stopped shipping Windows 10. In Windows 11, I've had so much trouble getting my programs and systems to work. It took me 2 days to install my current video editing program. Notifications wouldn't work (others on the internet have had the same problem), copying now takes 2 clicks instead of 1, renaming a file also takes more clicks. For anyone still using Windows 10 I suggest sticking with it.



Figure 1 – HP Victus Laptop with Windows 11 pre-installed

A. I haven't installed Windows 11 on any of my machines. I investigated what's new, what's different and asked myself what new Windows 11 features and programs do I need. The answer was nothing. My philosophy is, if it ain't broke, don't fix it.

Some manufactures still give you the option of Windows 10, which you can update to Windows 11 later if you require. You obviously didn't get that option with your purchase of the HP Victus laptop.

Q. This is a comment rather than a question. Recently I lost a USB stick and later, after searching for it in the dark, found it on the road where I parked my car. It had been driven over and the case was broken, but it still worked. Maybe we should be using USB sticks instead of rotating disks!

A. That's interesting to know, thank you.

Q. I have a problem with my Yahoo email account linking to Office 2010 Outlook. I thought it may be a Yahoo problem so created a Gmail account, but I find I still have the same problem. I suspect both Yahoo and Gmail need to link up with a more modern version of Outlook, which would have more security features. Is there anyway one could conveniently link those email accounts to Outlook 2010?

A. [Stewart Gruneklee from iHelp answers] Outlook 2010 does not recognise the latest security measure OAuth2 required by Google as you assumed. Therefore, Outlook 2010 doesn't readily recognise a Gmail account. If you go into your Gmail account and accept 2 step verification (which you may not want to do), that will allow you to get an application password. You apply that password to the account in Outlook. If that's sounds too complicated, I'd suggest you ditch Outlook 2010. Google refers to Outlook 2010 as a LSA (less secure application)

[Reply] If I view my emails and use automatic forwarding from Gmail on my phone to Outlook, will that circumvent the security and work?

[Stewart replies] That's getting a little bit messy. Outlook 2010 is an email client and if you continue to use it, you're likely to have future problems when further security measures are introduced. You could use Thunderbird as an alternative to Outlook 2010.

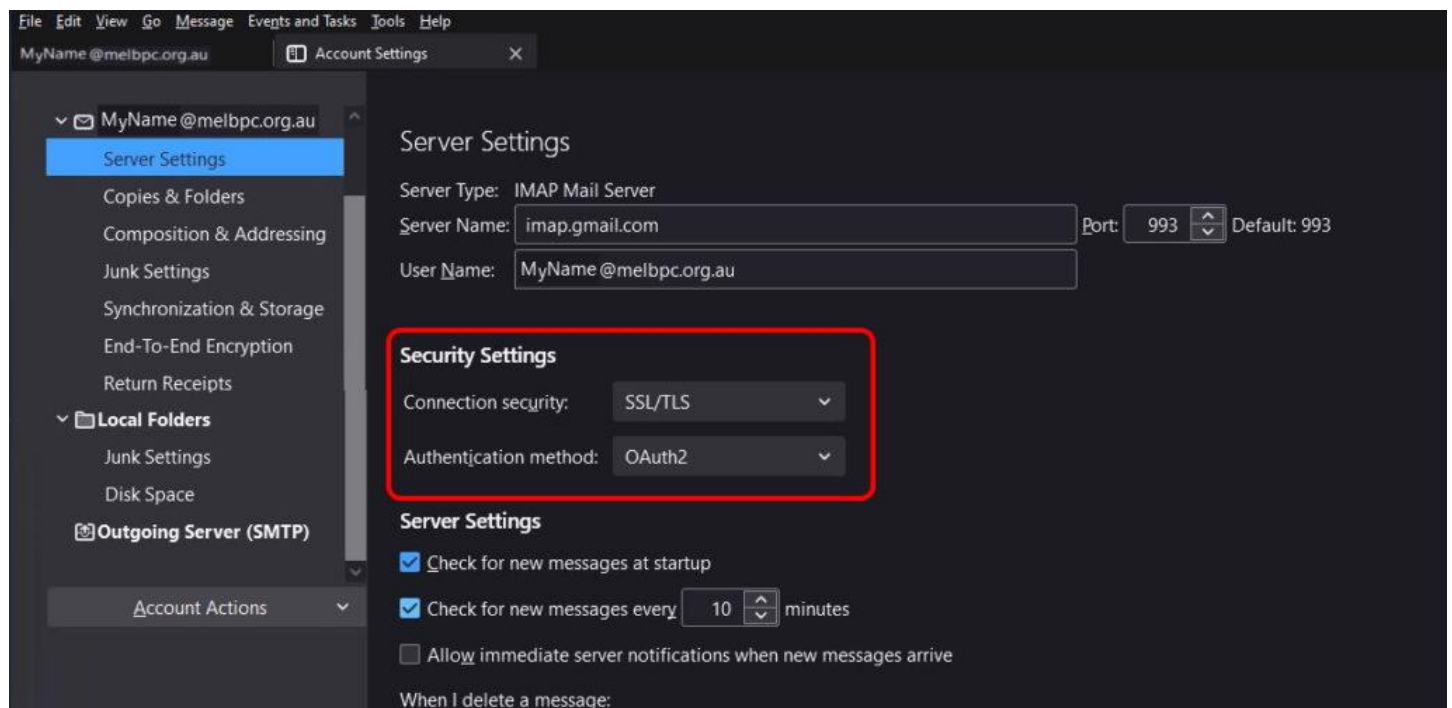


Figure 2 – Thunderbird OAuth2 Security settings

[Phillip Lynch from iHelp replies] On the matter of forwarding emails, there are options in Gmail that allow you to retain the message in Google when forwarding. That will allow you to do what you suggest.

[George] In Yahoo, you should be able to set it to forward your mail to your MelbPC account. Because you're forwarding from Yahoo, the emails will stay on Yahoo. If you wish to stay with Outlook, you may be able to pick up a discounted copy of a recent version of MS Office on the website SaveOnIt.com

Q. Does anyone know of a computer system that would enable a person with very limited arm movement (almost a quadriplegic) to operate a computer? The person can't use a mouse due to limited arm movement, but possibly could use a joy stick. Stephen Hawkins managed, so there must be something available?

A. Dragon dictate allows you to issue many commands such as save file, open file, open Excel etc. I haven't tested it as I don't have a need, but you could investigate that further.

[Bill Ford replies] The former Spastic society, now called Scope, may be able to assist you as a good starting point.

(Stewart Gruneklee from iHelp] Have you explored the “Window Ease of Access” settings in Windows? There are societies around that help the paraplegic and people with similar disabilities, so I’d search around and you’ll probably find something.

Q. I use Thunderbird as my email client with 3 different Gmail accounts. No matter what email account I send messages from, everyone replies to just one of them, regardless of which account I send emails from. Obviously, those receiving my emails are seeing them as coming from just one account? I assume there must be a setting, but I’ve not been able to find one.

A. [Phillip Lynch from iHelp replies] Go to account settings in Thunderbird, select each account and go to server settings and then the outgoing server. Down the bottom you nominate the outgoing server you want the email to go out. Refer Figure 2 above (If you like I can contact you and assist you with those settings)

Following Q&A, **Trevor Hudson** presented a new video he’d prepared and uploaded to his YouTube channel “PC TechTips”, titled “**Creating Short custom URL Links**”.

A URL or Uniform Resource Locator, is a reference to a web page or resource. When a link to a webpage is included in a report such as this, the URL is often long, has meaningless characters and is difficult to type without making mistakes. In Trevor’s video, he shows how the URL from one of his YouTube channels can be customised to indicate its content.

Two free programs that shorten a URL link and also allow custom channel branding were recommended by Trevor. The first was **TinyURL**, available at <http://tinyurl.com/app> and the second Rebrandly, at <http://rebrandly.com>.

TinyURL was the program demonstrated in the video to create a customised URL. From the TinyURL website it is recommended you first need to create an account. However, this is not entirely necessary, as Trevor showed a way to create a customised URL without a user account. To demonstrate how to shorten the URL, Trevor used one of his earlier videos about using MP3Gain. Using the long URL for his MP3Gain video, Trevor demonstrated how to customise the TinyURL link, by incorporating the name “Using-MP3Gain”, in the new link. The customisation helps make it easier to identify the video from its new URL. Refer Figures 3 and 4.

In the example shown, the videos YouTube URL <https://www.youtube.com/watch?v=MzPxPM6e-Nc> was shortened to <https://tinyurl.com/Using-MP3Gain>. Trevor then clicked on the new link to confirm that the customised URL played the video correctly.

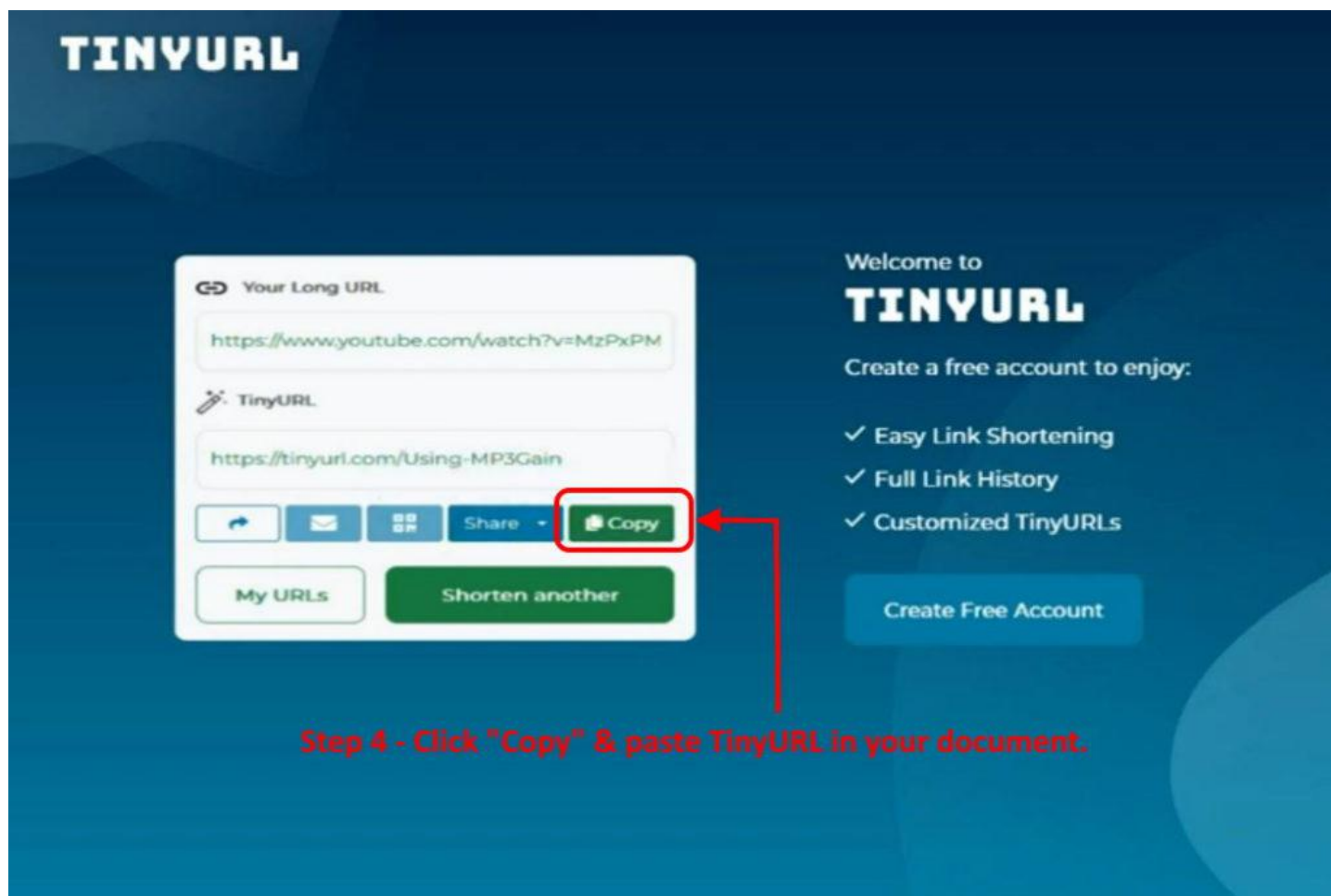


Figure 3 - Creating TinyURL custom URL Links

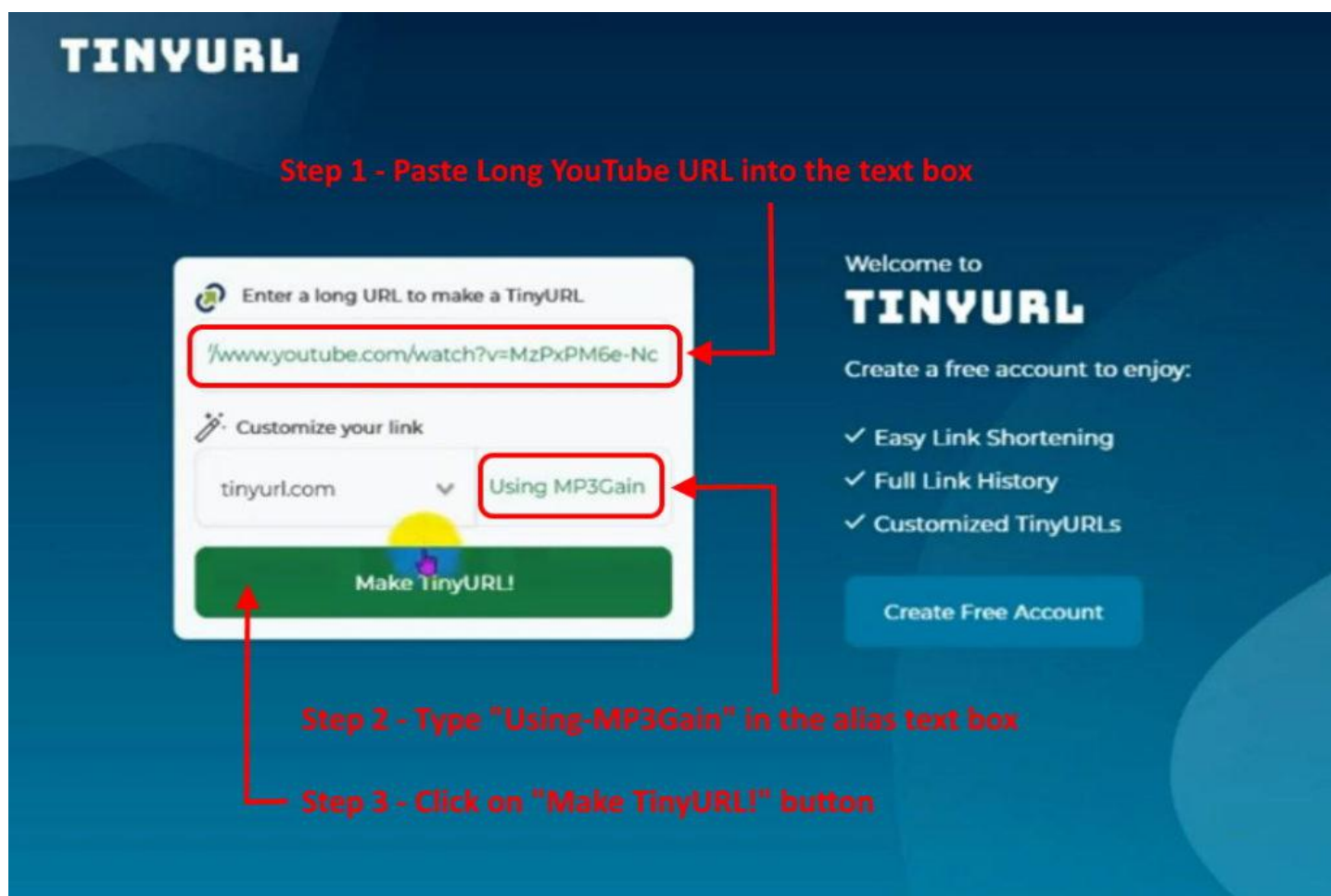


Figure 4 - Creating TinyURL custom URL Links

The main presentation was by **Dave Botherway**. Dave gave us a step back in time with his presentation titled, **“TV Evolution to Smart TVs - and all the Jargon”**.

TV Evolution in Australia

Dave’s presentation commenced with an excellent summary of the evolution of television (TV) in Australia. For many of us, this was a reminder of how things were, and how we have got to where we are now.

1956 - The Melbourne Olympic Games was the catalyst for the introduction of television in Australia. The picture was in black & white with a resolution of 768 x 576. The picture was from an analog signal displayed on a Cathode Ray Tube (CRT) with an aspect ratio of 4:3. Three free to air (FTA) channels were available, ABC 2, HSV 7 & GTV 9.

1969 - The Apollo Moon Mission was the driver for the development of colour TV in America.

1975 - On the 1st March 1975 saw the introduction of free-to-air colour TV in Australia. It used the European PAL standard previously approved in 1968. The signal was still analog via a coaxial cable displayed on a CRT, with a resolution of 768 x 576 (i.e. 768 dots across, 576 rows/lines down)

1982 - Circa 1982, computers or game boxes such as the Commodore 64, Vic20, Atari, TRS-80, used the TV for their display. The input to the TV was via an RCA a/v cable and the picture was viewed on one of the unused TV Channels.

Since the introduction of television in 1956, the TV signal was analog. It relied on a radio frequency (RF) signal from a TV tower to the TV set. A coaxial cable was used for connecting the aerial socket on the wall to the TV. The analog signal is one where the amplitude is modulated (i.e the modulation of the signal goes up and down) and is referred to as a radio frequency signal. As a result, the signal is very susceptible to outside weather conditions.

Soon after, video cassette recorders (VCR) became a necessity in most homes and these also connected to the TV. VCR’s were connected by a coaxial cable to a wall plug to receive the RF analog signal, from the television stations TV tower. The VCR player would then be connected to the TV preferably with yellow, red & white RCA cable. Refer Figure 6.



Figure 5 - Commodore 64 □ Sony VCR □ DVD Player/Recorder

The next development was the DVD (Digital Versatile Disk) player. These players also connected to the TV via an RCA cable to display their picture on the TV screen. Later developments saw the DVD recorder replace VCRs. DVD players sold in Australia are coded to play region 4 & 0 DVD discs.

The resolution of a DVD can be 480i. i.e. 2 “fields” of 240 lines by 720 pixels or 576i i.e. 720 x 576. A standard DVD player will connect to a TV via “composite video”, S-Video, or a “component video” cable.

Figure 6 below is taken from Dave’s presentation and shows the various analog devices that can be connected to an analogue TV.



Figure 6 - TV Analog Connectivity (Graphic by Dave Botherway)

2001 - Digital TV in Australia commenced in January 2001. Digital television differed from analog as its transmitted signal comprised of zeros and ones, rather than the RF modulated analog signal. The digital signal has better signal strength and quality than the RF signal. The extra band width allocated to each broadcaster, allowed extra free-to-air channels. Channel 7 for example was allocated channels 70, 71, 72, 74, 76, 78.

To accommodate this new era of digital television, a new TV was needed to handle the digital signal. As this was a large and significant extra expense, many opted for a Set Top Box as a bridge to the TV.

2013 - In December 2013 analog free to air TV was phased out.

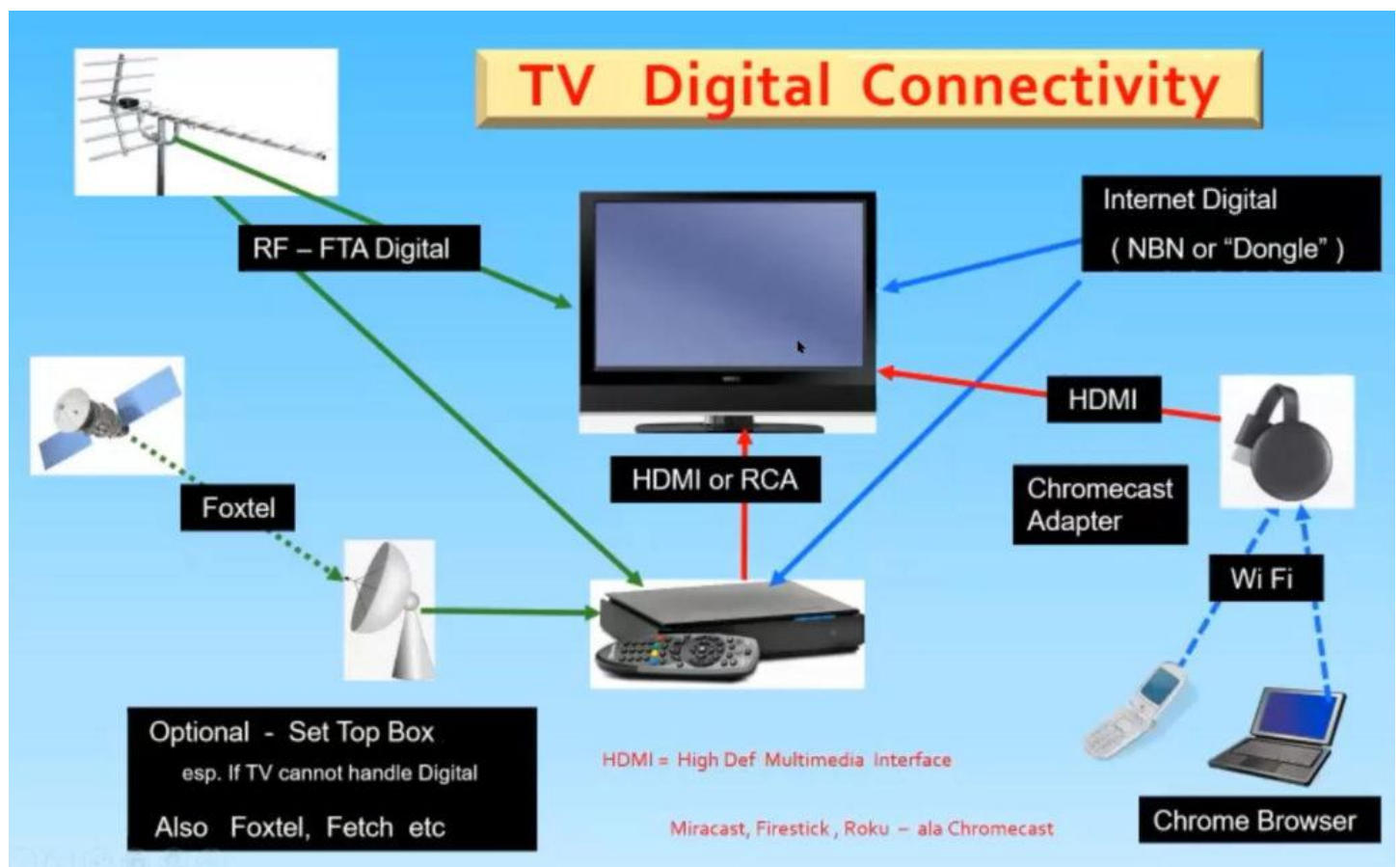


Figure 7 - TV Digital Connectivity (Graphic by Dave Botherway)

Function Integration of Televisions Today

Added Functions to modern TVs

- Built-in DVD players were included in many TVs as an extra function, although USB input has now taken over from DVDs.
- Built-in Chromecast allows users to display what's on their PC or Phone on a TV
- TVs can display Pictures and Video from an external storage
- Recording and Playback function are included in many TVs. This function allows you to record and playback recording, usually from a USB or hard drive. This has taken over from the role of the VCR. One drawback, is that you can only view the channel being recorded.
- External storage to a USB or hard-drive
- Recordings can be delayed and or repeated
- For expanded functions such as apps, you need a full Operating System
- With Internet access the TV becomes a Smart TV

External viewing sources

- Streaming services and free, free -to-air catchup TV are available via an internet connection.
- Subscription TV (Netflix, Stan, Prime, Disney etc.). The user pays twice with these subscription services, first for the service and later for the internet data from an internet service provider such as Telstra.

What is a Smart TV

A Smart TV is a TV using a full Operating system. It has internet connectivity via a LAN cable or more commonly Wi-Fi. It will have preloaded apps that give access to key streaming sources such as Netflix, Catchup TV etc. Dave presented Netflix and Stan prices, with Stan slightly cheaper but with a smaller library of content than Netflix.

When viewing content via the internet, users need to be aware that streaming uses internet data, so caution is needed. Be aware of the resolution being viewed, as this has a direct relation to the amount of internet data being used. Dave gave the following examples.

- Standard Definition, SD = 720*480 uses 0.6 Gigabytes / hour
- High Definition, HD= 1280*720 uses 1.1 GB / hr
- Full High Definition, FHD= 1920*1080 uses 2.9 GB / hr
- Ultra High Definition UHD (4K) = 3840 * 2160 uses 7 GB / hr

A Smart TVs can add extra apps and functions ex Libraries (e.g. Google Play store). This feature has enabled Dave to load VLC player as an extra function.

A Smart TV may also have voice recognition for Spoken Commands. e.g Google assistant

The Operating Systems (OS) used on Smart TVs vary depending on the manufacturer of the TV. Common OS's used are Sony, Kogan etc - Android (with Google Assistant), Samsung uses a proprietary Tizen / Linux OS's, while LG uses Web OS.

Smart TV Features

- HDR or High Dynamic Range allows darker blacks and more contrast in colours than non HDR TVs.
- Smart TV remotes give one key access to Netflix, YouTube etc. and Voice Activation i.e. (Google Assistant)
- Provides controls for Recording and Playback of content
- The Home button provides options such as Netflix, Stan, YouTube, and the ability to load apps from Google Play store (on Android OS TVs) such as VLC, File Commander etc.
- Art mode allows a wall mounted TV to display subscription art or one's own pictures or videos when the screen is not in use. Some of the features offered with Samsung Art mode is for the TV screen to turn off; at set times, by the amount of light in the room or inactivity in the room. Other options available with Art mode is are optional frames and borders.



Figure 8 - Typical Smart remote

Understanding the Jargon in TV Ads.

To conclude the presentation, Dave displayed an advertisement for a Smart TV where technical terms or jargon was used that could easily confuse a buyer. The advertisement from Kogan (Figure 9) describes the TV as an AndroidTV, although Smart TV was written elsewhere in the ad but in smaller lettering. Other terms used were Kogan 75" 4K UHD HDR LED Smart TV Android TV Google Assistant, Chromecast Built-in Dolby Vision. These terms all assume the buyer is aware of these terms.

Dave made special mention of the term LED or Light Emitting Diodes, in the advertisement. LED, QLED or OLED are all relevant to the picture quality of the TV. QLED (Quantum dot LED) is an improvement on LED, with OLED (Organic LED) being a step up from QLED and top of the range. Dave stated that OLED gives a far better display, as each pixel is its own light, where with QLED, each pixel has its own filter, but still uses the same LED lights from the screen's boarder.

One of the problems with buying TVs online is that you don't get a side-by-side comparison that you do when buying from a physical shop. Dave was slightly disappointed with a recent online purchase as the screen is not as bright as he would have liked.

75"

ULTRA HD 4K

Google Assistant

Chromecast built-in

Dolby VISION

NETFLIX

prime video

Disney+

YouTube

Google Play

Easy Streaming with AndroidTV™

kogan

androidtv

UHD TV

FREE SHIPPING

Kogan 75" 4K UHD HDR LED Smart TV Android TV™ (Series 9 XU9220)

Kogan

★★★★★ (5)

\$1,229

Standard Retail Price \$1,999.99

DELIVER TO VIC 3197

Leaves warehouse in 1-2 business days.

Sold by Dick Smith

Add to Cart

Add to Wishlist

Figure 9 - Typical Smart TV advertisement

In summary

- A SmartTV is a TV with added functions via its OS and usually has Internet access
- Free to air TV is where the TV signal is obtained via an aerial and not by the Internet. Consequently, it does not use your internet data allowance, compared to watching Netflix, Stan etc. Free to air TV now uses a digital signal and allows multiple channels per band, with one channel broadcasting in High Definition (HD) and others in the band at Standard Definition (SD) or 720 resolution.
- '4K' television is the width in pixels of the picture defined as UHD having 3840 pixels across by 2160 pixels or lines down.
- Chromecast provides TV Connectivity from a PC or phone. It was originally sold as a device that plugs into the TV like a USB stick, but is now often built into the TV.
- Netflix is a subscription-based streaming service that allows its members to watch TV shows and movies without commercials on an internet-connected device.
- Streaming can use up your data allowance, especially watching hours of HD content.
- ART display is a Samsung feature in its LS03T model, where art work or one's own photos or videos are displayed while the TV is not in use. A similar feature is available from LG.

The meeting concluded with questions to Dave on Smart TV's, followed by informal discussions between audience members on a number of other topics.

East SIG Report July 2022

Neil Muller

Host Frank Maher opened the May meeting, again from home via Zoom. After welcoming members, Frank outlined the nights agenda shown below:

Presentation 1: Q&A with John Hall

Presentation 2: Best free VPN by Trevor Hudson

Presentation 3: Browser Finger Printing and other topics by Stewart Bedford

The first presentation of the night was by **John Hall** presenting Q&A in George Skarbek's absence.

Q. Over the last few days, the audio from YouTube videos is what I'd call very muddy or "bassy", and not very clear. I've looked at the Sound section in Windows Control Panel and the tests I've done show everything is working fine. I didn't want to do anything before the meeting, in case I had no sound, so I plan to test it further at a less time critical time, say on the weekend.

A. If you right click on the speaker icon on the Taskbar, a small menu will come up. Have a look and see if "Spatial sound" is turned off. That option counteracts the effect of playing sound in a large hall. The sound on YouTube may be the fault. The volume control on a YouTube video operates independently to your computers system volume control. Adjust those and the sound may improve. As we are only a day or so past Microsoft Patch Tuesday, I often find that Window updates are installing in the background without the user being aware. This can use up system resources and can affect Windows operations. After a reboot things often return to normal, so a reboot may help.

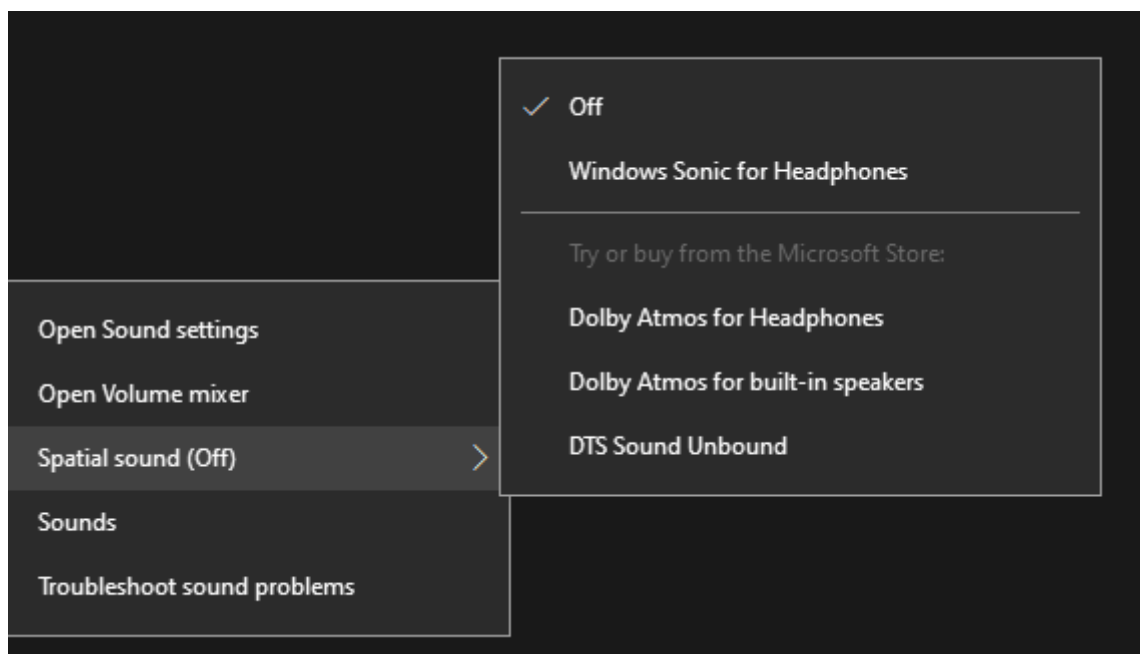


Figure 1 - Windows system sound menus & settings

Q. John, I notice that the lighting on your face is very clear and wonder what sort of lighting you use?

A. It's called a Hue light. I have one on each side and can adjust them from my phone. I purchased them from Amazon during a Prime day sale. They were still rather pricey though.



Figure 2 - Philips Hue light set

Q. For the last 6 months I've had two monitors connected to my computer. I find the setup very useful but have one annoyance that I've yet to overcome. Often, I'll only need to work with one monitor, so only turn the main monitor on. However, if I try to open a program that was last displayed and closed on the second monitor, nothing is displayed. At first I thought it was a fault but realised Windows was displaying the program out of view on the second monitor. I would then have to turn on the second monitor to be able to view the program. To overcome this annoyance, when I'm about to shut down my computer, I'll drag all the programs open on the second monitor onto the first and close them from there. This approach ensures that when I start my computer the next day, all programs will open from the main monitor. Is there an easier solution?

A. Right click on a blank area of your desktop and you will have the option to select Display settings. From there you can either extend your display over 2 screens or have 2 separate screens. If you change the way you have your screens setup, it may make life easier for you.

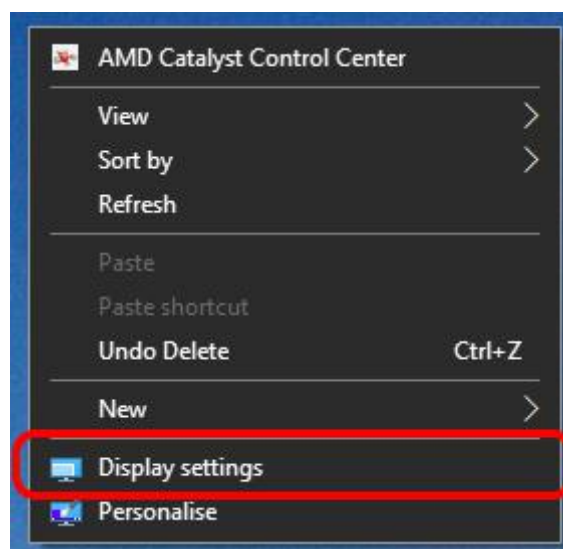


Figure 3 - Windows Display settings menu

[Stewart Gruneklee from iHelp answers] When the second monitor is turned off (in standby mode), use the shortcut Shift + Win Key + Arrow key to move the invisible but open program to the main monitor. You can use this shortcut to cycle the program between screens.

[Peter Carpenter replies] Because the second monitor is on standby, Windows still recognises its presence and that is why the program remains on the second monitor. If the power to the second monitor is turned off, Windows will acknowledge there are fewer screens. Windows will then automatically move the application that was previously shut down on the second screen, to the active screen.

Q. My living room faces north and it is very bright during the day. I was wondering about purchasing a computer screen with a large number of nits. Does anyone have any experience with screens with high nit ratings? People that work outdoors would need such screens so they must be available.

A. No one was able to answer this question.

Following Q&A, **Trevor Hudson** presented a new video he'd prepared and uploaded to his YouTube channel "PC Techtips", titled "**Best free VPN ProtonVPN**".



Figure 4 – YouTube graphic for “Best Free VPN ProtonVPN”

A VPN is a Virtual Private Network which provides privacy, by encrypting your online internet traffic through encrypted servers. It disguises your home location, so your real IP Address is untraceable. A user may use a VPN to access geo-blocked content from another country or to protect your identity on your computer at home or when using public or shared Wi-Fi. This ensures your data will be kept private when on the internet.

Proton VPN has been recommended as the best free VPN from review website TechRadar, by Kevin Stratvert and many other sites. Trevor's video demonstrates how to obtain, install and run ProtonVPN. The free version gives servers in 3 countries (Japan, Netherlands and USA), medium VPN speed and one VPN connection. For those wishing to view content from the United Kingdom or other countries than the 3 offered by ProtonVPN, Trevor has listed other free VPNs in the description under the YouTube video. PrivadoVPN free at <https://privadovpn.com/> is second on the list and has servers in the UK which Trevor uses to access the BBC TV and radio.

To test the effectiveness when connected to a VPN, Trevor recommends undertaking a leak test from sites <http://ipleak.net/> and <http://browserleaks.com/ip>. An IP leak test is used to determine whether your real IP address is visible to others while connected to a VPN. This could occur when your computer unknowingly uses default servers rather than the anonymous VPN servers.

Trevor's video can be found on YouTube by searching the title "Best free VPN ProtonVPN" or using the link <https://tinyurl.com/2p8j9xut>.

The main presentation was by **Stewart Bedford** on browser fingerprinting and a number of other internet

security related topics.

Find your public IP address

An IP address or Internet Protocol address, is a series of numbers that identifies any device on a network. Computers use IP addresses to communicate with each other, both over the internet as well as on other networks. To quickly establish your public IP address, type the letters “IP” in your browser search bar. Most users would not be concerned with their IP address, however Stewart said he often refers to his. He’ll do this when using a VPN to determine where his data is coming from.

An IP address can be either dynamic or static. Most IP addresses are dynamic and you’ll find your ISP (Internet Service Provider) will change your IP address fairly frequently. A static IP address is not normally required by the average user, unless running a mail server or IP security cameras. Usually you have to pay extra for a static address.

You can get more information from dedicated sites like <https://whatsmyip.com/> by logging on their site. The information obtained includes; your public IPv4 address, country, latitude & longitude, timezone, LAN, screen resolution, computer OS and your browser. The term used by websites such as WhatsMyIP.com to attain this information is called “browser fingerprinting”



Figure 5 – Whats My IP homepage

Browser fingerprinting

Browser fingerprinting is a powerful method that websites use to obtain information about your browser type and version, as well as your operating system, active plugins, time zone, language, screen resolution and various other active settings.

Stewart indicated, that although this information may appear generic, a recent analysis showed only one in 286,777 other browsers shared an identical fingerprint. This information is then used to track your browser activity and build a profile. Companies also collect fingerprints and on sell them.

Stewart alerted members to the website <http://CoverYourTracks.eff.org> , which has an excellent article on fingerprinting and how to combat it. The website results from Stewart’s computer in Figure 6, showed he only had “some protection”. This surprised Stewart as he’d spent some time locking down his security settings.

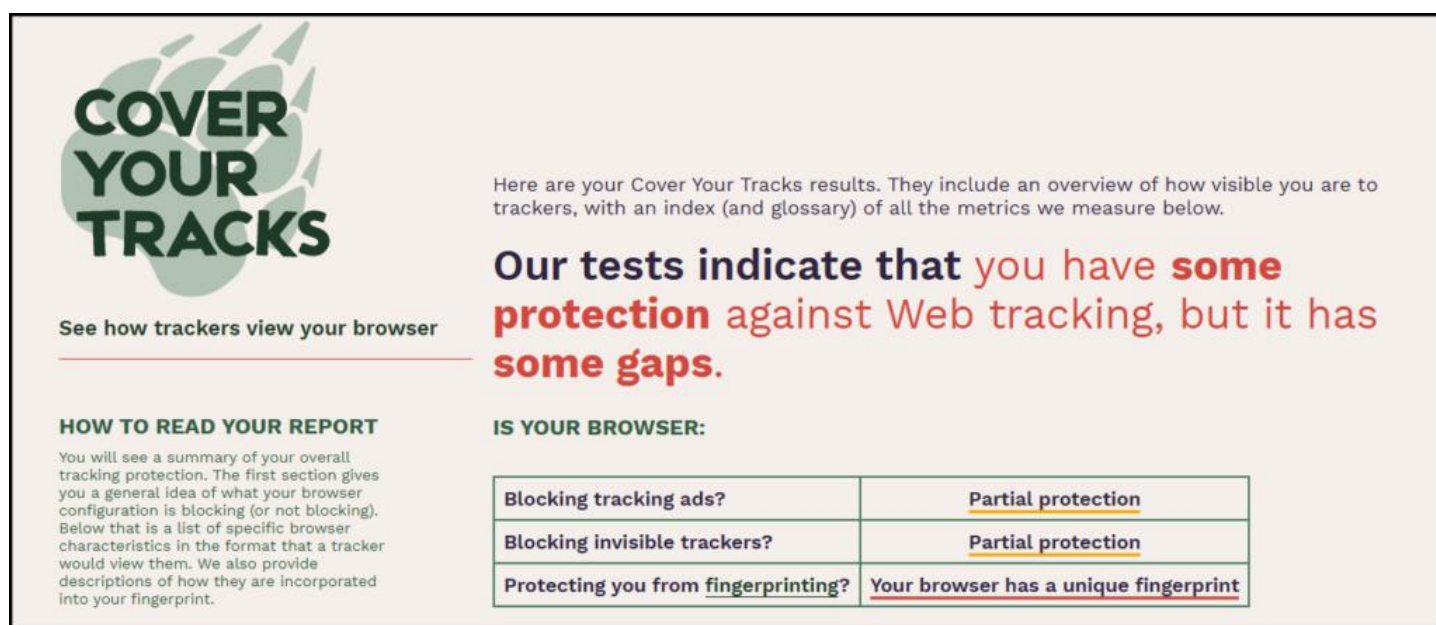


Figure 6 – CoverYourTrack.eff.org

Stewart mentioned the following tips to mitigate against browser fingerprinting

1. Use the Firefox browser and engage its privacy options. This is not a perfect solution but it does help.
2. Use the incognito mode of your browser, to reduce fingerprinting. Again, while it's not a perfect solution, it does reduce the amount of information shared with others.
3. Use the Tor browser. Tor is an extremely secure and private browser. It includes anti-fingerprinting features, such as cloaking your operating system and blocking revealing information like your time zone and language preferences. Without these details, it's much harder for your browser to be fingerprinted.
4. Use a VPN. A VPN doesn't prevent websites from using JavaScripts HTTP headers to collect browser fingerprints. It removes (hides) your address from the headers, but your fingerprint still might be unique.

The solution to stopping websites from collecting your fingerprint data, is to use a mixture of all the above tips, along with using a VPN.

Radio Apps on your phone

The next topic Stewart presented was on Radio apps you may have on your phone. When local radio stations 3AW and the ABC recently required Stewart to register their apps on his phone, he deleted both and installed Simple Radio instead. He could have used a false name and email address, but chose to delete both apps and install Simple Radio.

Simple Radio has 50,000 stations and no registration is required. The free version comes with ads, but there is a paid for, ad free version, which includes a sleep timer. Stewart uses the free version, with a separate free sleep timer from the Google Play store.

Simple Radio is available for Android and iPhones and gives access to FM Radio stations, AM Radio, Internet Radio Online and Free radio stations worldwide.



Figure 7 – Simple Radio

Free Encrypted Mail Client

From time-to-time Stewart uses an encrypted mail client for some of his personal emails. He uses the free version of Protonmail from an app on his phone, or via a web browser on his computer. Protonmail is the same Swiss company that Trevor mentioned in the previous presentation on ProtonVPN. Stewart uses Protonmail when he absolutely needs to ensure his email is secure and cannot be intercepted by others, such as when dealing with the government, tax department etc..

Protonmail is an end-to-end encrypted email service founded in Geneva, Switzerland. Protonmail uses client-side encryption to protect email content and user data **before** your emails are sent to Protonmail servers. Client-side encryption is more secure than other common email providers such as Gmail and Outlook, where emails are encrypted once they reach their servers.

Proton's policy is that your data belongs to you. That's why they use end-to-end encryption and zero-access encryption, to ensure that only you can read emails. Proton cannot read or give anyone else access to your emails. Their encryption happens automatically, with no special software or tech skills required.

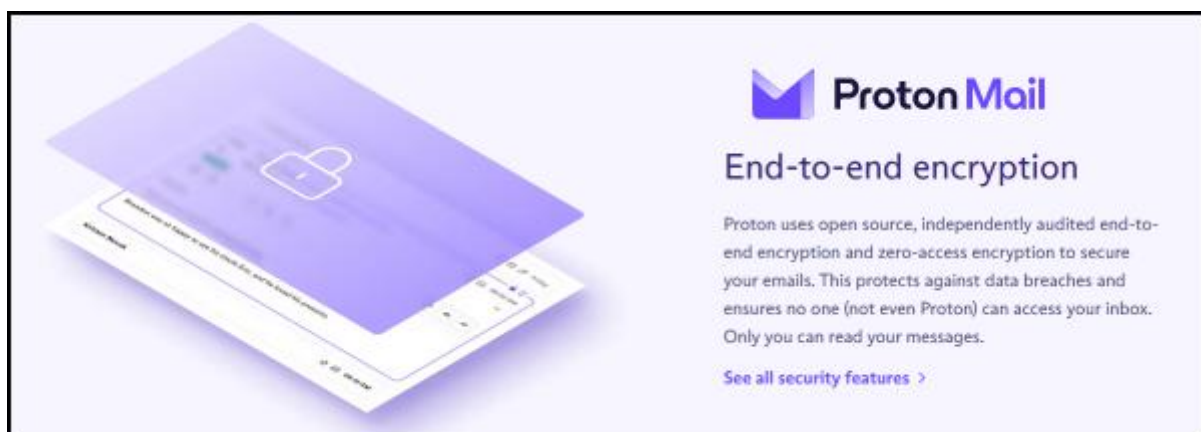


Figure 8 – Protonmail Android App

“Innocent” quizzes and challenges on Facebook

Many “innocent” quizzes and challenges on Facebook are designed to glean information about you, to build a marketing profile. Some have more sinister intent, being designed to gather personal information with fraud in mind.

Have you ever taken one of those ridiculous and inane quizzes on Facebook? If so, all your private information is likely being shared or sold.

Social media quizzes often ask the same questions your financial organisations use for security purposes, to verify your identity when you need to change your password or access your account without a

password. Some examples include the name of your hometown or the name of your first pet.

Other examples Stewart has seen are: "What was the first car you owned?", "What is your mother's maiden name?" or "What is the name of the street you grew up on?". These are common security questions for insurance, banking and credit card accounts.

Downloading from YouTube (an update)

This is an update to a presentation Stewart gave to East SIG in September 2018, on downloading videos from YouTube. The meeting report of that presentation appeared in PCUpdate the following month, October 2018.

Watching videos on YouTube can be quite painful when the videos are plagued by the interruptions from advertisements. When Stewart finds something of interest that he wants to watch from YouTube, he'll download the video and watch it ad free later. Many full movies are often available on YouTube, as he demonstrated in the example shown in Figure 9.

The technique Stuart uses involves working from the command line. In his previous presentation (September 2018) he used the command line downloader "youtube-dl". This disappeared for a while and has now reappeared. However, Stewart now uses "yt-dlp" a fork of youtube-dl which works in Linux and Windows. Stuart proceeded to described how he uses "yt-dlp" in Windows.

Step 1 - For Windows users, download the executable file yt-dlp.exe 2022.06.22.1 (the current version at the time of his presentation) from <https://www.videohelp.com/download/yt-dlp.exe>). Although it has an .exe extension, the file can only be executed from a command line.

Step 2 - Move the file "yt-dlp.exe" in an existing folder or create a new one, and execute the exe file from there. The downloaded YouTube video files will be sent to that folder.

Step 3 - From the command prompt navigate to the folder, "YT" in Stewart's example (Figure 9) and type "yt-dlp" and a space.

Step 4 - From YouTube copy the URL of the video you wish to download and paste it to the command line in step 3 and then press Enter.

Step 5 - After a short period, the file will be downloaded to the "YT" folder on the Desktop. It can then be watched on a phone, computer or TV without ads.

Stewart finds working from the command line is faster and has less system overheads. The process becomes second nature once completed a few times. (An annotated version shown in red in Figure 9 shows the process used.)

```
CA Command Prompt
Microsoft Windows [Version 10.0.19044.1586]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Jenny>cd desktop\yt

C:\Users\Jenny\Desktop\YT>dir
Volume in drive C is win64
Volume Serial Number is 84A6-F1B1

Directory of C:\Users\Jenny\Desktop\YT

26/06/2022  07:55 PM    <DIR>          .
26/06/2022  07:55 PM    <DIR>          ..
26/06/2022  04:18 AM             13,926,014  yt-dlp.exe
               1 File(s)              13,926,014 bytes
               2 Dir(s)  63,846,674,432 bytes free

C:\Users\Jenny\Desktop\YT>yt-dlp https://www.youtube.com/watch?v=197QAkQ2sco
[youtube] 197QAkQ2sco: Downloading webpage
[youtube] 197QAkQ2sco: Downloading android player API JSON
[info] 197QAkQ2sco: Downloading 1 format(s): 22
[download] Destination: Zulu 1964 Stanley Baker Michael Caine Full Movie HD [197QAkQ2sco].mp4
[download] 100% of 776.02MiB in 01:03

C:\Users\Jenny\Desktop\YT>
```

Folder "YT" created on Desktop

A directory enquiry shows file "yt-dlp.exe" is the only file in the "YT" folder.

From the command line navigate to the "YT" folder and type yt-dlp and press the space bar.

From YouTube copy the URL of the video and copy it to the command line as shown and press Enter.

This line shows the destination of the downloaded file "Zulu"

This line shows 100% has been downloaded, the file is 776 MB and took 01:03 minutes.

Figure 9 – Command Window using yt-dlp.exe

Recover and revive old black & white photos or negatives

If you have old black and white photos or even just the negatives, they can be recovered and revived with your smart phone. Prints can be scanned and “colorized” and negatives can be turned into positives and then “colorised”

To conclude his presentation, Stewart described how he took an old black & white negative and by shining a back light through the negative, took a photograph of the negative using the camera on his smart phone. Using the Android app “Photo negative scanner”, the resultant image was then colorised using a program called “Colorize Images”. Stewart then used Faststone Image Viewer to dial down the saturation, yielding a very realistic result.



Figure10 – Photo Negative Scanner for Android

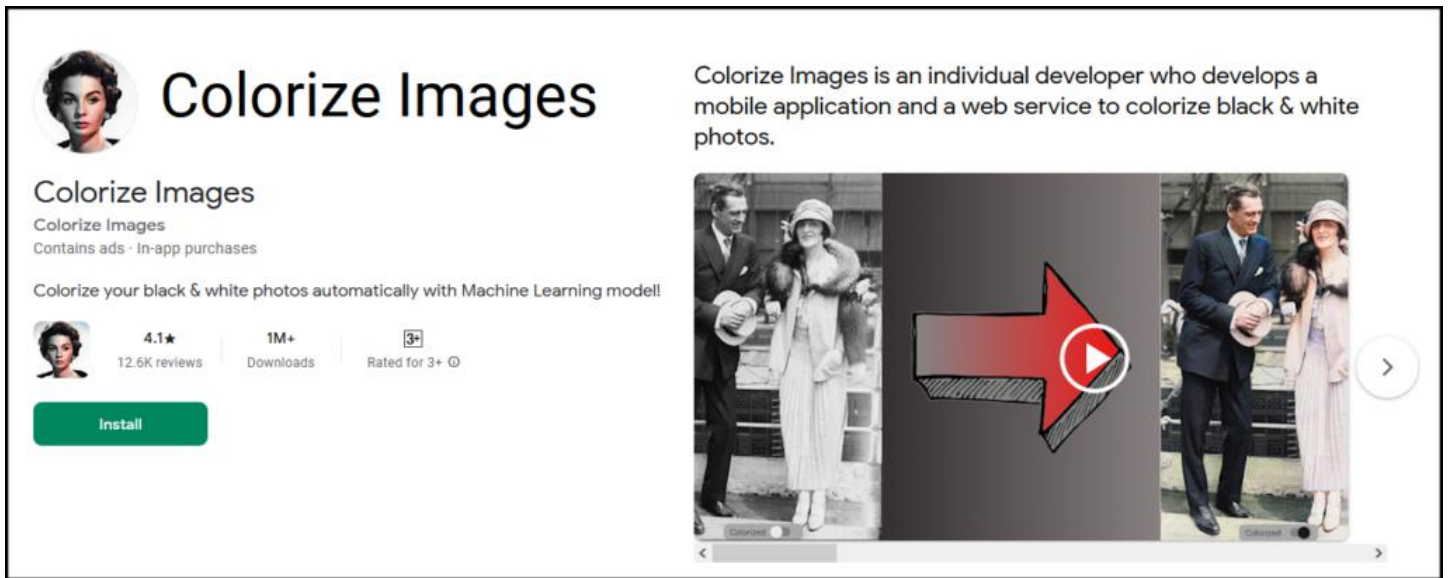


Figure11 – Colorize Images for Android

The meeting concluded with questions to Stewart on topics covered in his presentation, followed by informal discussions between audience members on a number of other topics.