

## EDITORIAL

### Welcome to the June 2019 SeniorNet Newsletter

*Well, I've stepped in at the deep end, so to speak, and have taken over", or should I say: "undertaken" the duties of Editor for Senior Net's Newsletter. Experience: other newsletters in the past for other organisations, so it's not something with which I am unfamiliar. But, I'll do my best for you.*

*I've been with Senior Net for many many years, undertaking all types of tasks, been on the Executive for quite a few years now, helped with tutoring classes in the past, helped in the office, looked after e-mailing members regularly for quite some time. So here I am, learning another skill, and pleading and begging with members for articles and items of interest for your Newsletter. Anything is welcome, no matter how trivial you may think it might be.*

*Personally, I've decided now is the time to convert my VHS tapes to DVD's just to keep up with changing technology. Step one is to source a suitable easy to use conversion programme to do this, and to also trust that the VHS player still works and hopefully will attach to my laptop. I'll let you know progress, if any for the next Newsletter.*

*My aim is to keep this interesting, friendly, not too much technical Jargon and. some light-hearted items. So for May 2019, here goes.*

**Franci Stapleton** ([staplefran@gmail.com](mailto:staplefran@gmail.com))

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### CHAIRMAN'S REPORT

#### Greetings to all SeniorNet members.

WELL, since our March newsletter, we've had another successful Visitor's Day held on Friday 5<sup>th</sup> April. We had over 22 sign in at the door of which 12 subsequently became new members. Our publicity Officer, Graham Hill, commented that our success in getting good numbers was because we placed the advert in the "Dominion Post" and emphasised that the session was FREE, and also that he was able to obtain an excellent placement for the ad.

*Well done Graham, and thank you.*

On questioning the new members regarding what they wish to get out being a member of SeniorNet, the majority say they want help to learn how to use their smartphone and tablets (iPads), and this confirms

the trend that these devices are what most Seniors are struggling with in today's technology.

Quite a few of these new members have "inherited" their devices from their children who have migrated to newer models. But the problem is that children have not "cleared out" or reset their devices before passing them onto Mum or Dad, so that when they come to SeniorNet, they don't know what or how to deal with ID's and passwords, and we can't help them until we resolve the ID and password issue, to allow us to "unlock" their device and start teaching them how to use their device.

All this has created some challenging issues for us. I intend to discuss these issues at our next Volunteers meeting to see where we can get some answers.

Maureen Pratchett, our Webmaster will be leaving around August to live up Kapiti coast way. Pam Fletcher and myself are being trained by Maureen to take over Webmaster duties.

Finally managed to get in contact with Penny Beckett, our newsletter Editor. Unfortunately due to circumstances and personal health, Penny has said she can no longer do the Newsletter Editorials. I wish to acknowledge Penny's contribution to the newsletter and hope she gets well soon.

Franci Stapleton has stepped up and will do the editorials for the newsletter, Thank you Franci

Laurence Zwimpfer Chair of the Digital Inclusion Alliance Aotearoa (DIAA) approached us to see if

we would be willing to participate in a research project titled "Understanding the impact of digital technologies on the lives of seniors"

A group of SeniorNet members have agreed to participate in this Digital Inclusion Research discussion group which will be on the 22 May. The project will be led by a researcher from Victoria University of Wellington

#### Hands-on Courses.

In the previous newsletter, I mentioned we would be running a Smartphone Drivers Licence Series and iPad series, on a Thursday run-

ning from March until April.

Well, that has happened and all participants thoroughly enjoyed the series. We did have a bit of "hic up" in that a couple of classes were over "crowded" and it made the running of the classes a bit uncomfortable, but we managed.

Keep an eye out for notices of these courses if you interested and want to register in them, as class size numbers is limited. Also, you can check out the calendar on our web site at

[wellingtonseniornet.co.nz](http://wellingtonseniornet.co.nz) for when other activities are scheduled.



#### AGM Wednesday 19 June 2019 BoatShed 10am

Our AGM will be held on the above date, at the same venue as last year, so put this date on your calendar and I look forward to seeing you all there. An official notification will be sent to ALL members at the end of this month

Allan Chee **Chairman**

## OVERSEAS TRENDS

*This piece was extracted from the weekly Friday 50s Forward news & Views that is forwarded by John Nimmo which I thought was relevant to SeniorNet members.*

### OVERSEAS TRENDS

#### 5 reasons many seniors are afraid of the internet (and what you can do to help)

By [AhelioTech](#)

ALBERT IS 69 years old. Last Christmas, Albert's 39-year-old son bought him a tablet with touch-screen display, thinking it might prompt him to go online and read the news. After all, Albert loves the idea of getting news and checking the weather forecast at any time of day.

Albert's son had high hopes for his father's new tablet: He imagines he might even be able to share with Albert some of the inspiring articles he finds online. Who knows, they might even cheer up Albert and give father and son more to talk about?

"To Albert, his learning curve seems very steep: whether it's real or imagined, Albert is deeply intimidated by the internet."

He has heard stories about dangers lurking in the online world, and he's afraid he might fall prey to an online scam. Albert consoles himself with the thought that he's probably not missing out on much more than nonsense memes and a collection of cat pictures. After all, the Internet might just be a waste of time.

**Albert is seriously considering this tablet has been a complete waste of money...**

Is the internet simply another place to waste time on silly cat pictures?



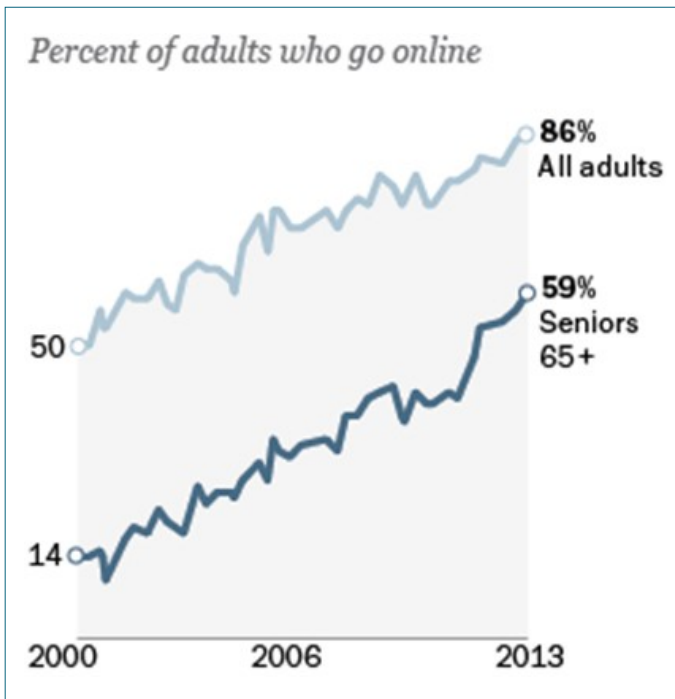
Do you think Albert's 39-year-old son understand his father's fear of the Internet and why he can't simply 'get over it'? The author can attest: His son (me), has little or no understanding of why his father won't switch on the tablet and experiment with it.

However, having researched and written this article, the author has gained a new feeling for the many reasons senior citizens might hold themselves back from embracing the internet.

Let's uncover why senior citizens like Albert are fearful of venturing online, and why, a few seniors have embraced the world of opportunities available to them online, and could never turn back to a life offline.

#### 1. There is a divide between seniors and the rest of the population using the internet

Albert's story is backed by statistics. In the USA, only 59% of people over the age of 65 use the Internet daily, as opposed to 86% of all adults under 65. There is



good news for those of us online: The number of elderly going online is increasing every year.

The world continues to see a rise in seniors accessing the Internet. Many countries now have active Government and non-profit programmes that teach older people how to use the Internet. Those that don't have those services often have access to enthusiastic children or grandchildren who hopefully have the patience to teach their elders to use a computer or tablet.

Especially for the elderly, the internet can be a way of accessing not only information but a way of keeping in touch with friends and family that might not have otherwise been physically possible.

### 2. Poor Eyesight and other disabilities make it difficult to use the internet

Many seniors admit they have difficulty using the internet due to a disability. Poor eyesight is commonly cited. According to research on Pewinternet, two out of five American seniors have a "physical or health condition that makes reading difficult or challenging".

At least poor eyesight is becoming A less of an excuse to avoid going online. Nowadays, there are some great reading solutions online, such as text reading software and text enlarging software that magnifies text. In fact, text magnification is now a built-in feature on most modern computer browsers and operating systems.

Albert doesn't have this problem – he has a great pair of glasses and a large tablet with pinch-to-zoom. So no excuses there.

### 3. Older people without internet access are disadvantaged because they miss out on important information

For most of us digital natives, access to the Internet feels like a fundamental right, such as access to fresh water or sanitation. The UN has declared internet access to be a human right. However, many seniors who

have never used the internet might not see what all the fuss is about.

"It's hard to describe the benefits of social media to someone who has difficulty switching a computer on. Simply using email or browsing news would be a great start for people like Albert"

Rather predictably, not even half (48%) of non-Internet-users believe they are missing out. Amongst regular senior internet users, the majority (79%) agree that their offline counterparts are missing out on information.

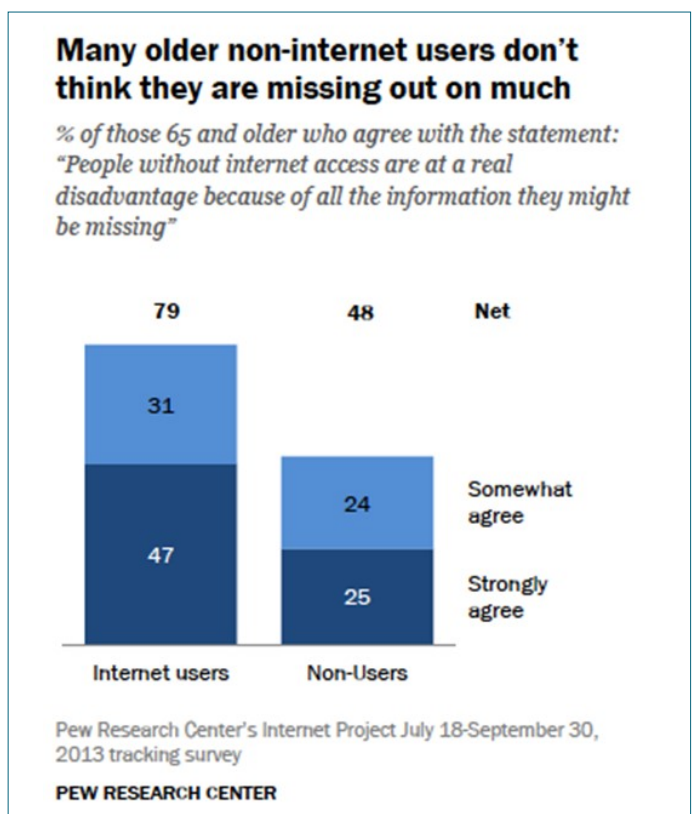
Clearly, once Seniors join the online world, online technology becomes an integral part of their lives, making it easier to interact socially, run daily tasks such as finding a plumber or paying bills online. The internet rapidly becomes a part of daily life for many seniors embracing its' convenience.

### 4. Surprising fact: Older adults using social media sites socialise more frequently than non-users

Like many people, Alberts friends and family is spread out all over the world. Like many seniors, he finds it challenging to socialise in person, especially as he no longer drives a car. This seriously affects his ability to participate in social activities.

" According to Pewinternet research, some 81% of seniors hat use social media socialise with others on a daily basis. Whereas only 63% of seniors that don't use social media socialise with others daily. Those using social media get out socially more often"

It appears that social media offers an additional 'venue' to socialise, and perhaps indeed, to plan in-person meetings and social events. Seniors who use social networking sites such as Facebook to socialise online are more likely to regularly socialize with friends, whether



## One-quarter of seniors use online social networks

% of seniors who ...



Pew Research Center's Internet Project July 18-September 30, 2013 tracking survey.

PEW RESEARCH CENTER

online, in person, or over the telephone, compared with seniors who are not social networking site users.

Ironically, becoming active on social media sites leads to more social interaction – not social isolation. Given that Albert struggles with loneliness and isolation, social media might just be part of the solution.

Appear to be from official government agencies, such as Social Security Administration, or banks, requesting personal information.

Set ultimatums such as “your account will be closed,” or “the deal will expire” to create a sense of urgency, and trick the victim into providing personal information. Naturally, an article like this wouldn't be complete without recommending that any PC user should have up to date anti-malware software. Emsisoft is proud to have a high percentage of senior users, and we frequently hear that seniors find our anti-malware easy to install and manage.

### Did Albert ever learn to use his tablet, or did he give it to charity?

The author is pleased to report that Albert is getting past his aversion to his tablet. His caregiver recently enrolled him in a free programme called 'Senior Net' which teaches seniors to work with technology.

“Gradually, the digital divide is being bridged. Who knows, father and son may soon be sharing stories online – anything is possible!”



### 5. Increasing online threats mean older users face real dangers online

Albert has heard about the many threats there are online, and as we can attest at Emsisoft, there are some very real threats online. No-one is immune to these threats. Unfortunately, some online criminals target seniors for their lack of skills online and use this to exploit their advantage.

Albert might do well to heed some practical advice from the MSICS in the USA, which can help senior citizens avoid getting caught out by online threats.

#### Internet users should avoid emails or social media messages that:

- Offer “free” gifts, prizes or vacations, or exclaim, “You're a winner!”
- Offer discount prescription medications or other “can't miss” deals.
- Appear to be from friends or family members, but the message is written in a style not usually used by that person, has numerous misspellings, or otherwise seems unusual. This is an indication your friend or family member's account may have been hacked.

Don't let age become a barrier to seniors participating in the online world. If you're a computer-savvy person reading this, you could consider setting up a PC for a senior family member, client or friend. When you do this, consider setting up high quality, easy to use anti-malware software right from the start. This will keep seniors safe from harm and ensures that can confidently explore the online world, and perhaps even enjoy an enriched social life!



## COG Magazine Notes for June 2019

All the magazines reviewed below are held in the SeniorNet office and the Wellington Public Library, and are available for borrowing.

**TECHLife Australia** (February 2019)

[**TECHLife** is an admirable computer magazine. It is full of interesting articles and valuable reviews, very few of either I can highlight here. Ordinarily, its logic is impeccable. But on one matter concerning the February issue, I was confused. There are in fact two February issues. One is numerical issue 86, and the other is issue 87. But both are given the date February. That is not an overwhelming problem, but in case you too are confused, this note is to indicate that you have company.]

## ON YER E-BIKE

E-bikes are growing in popularity. Friends have them. They ride up the Ngaio gorge without difficulty. Their enthusiasm for these machines is infectious. Temptation is an unsurprising outcome. But getting good technical information on e-bikes is often hard to obtain. And this is where **TECHLife** comes to the party. There is an excellent article in this issue, "Head-to-head: which e-bike should you buy?" (pp. 80 – 82). It's a pretty comprehensive overview which provides essential information. I wouldn't want to go into an e-bike shop without having read it.

**TECHLife Australia** (February 2019)<sup>2</sup>

## PHONE OUT OF POCKET?

Android phones do from time to time get lost – or worse, get stolen. However, there's a helpful article here: "Secure your Android device" (pp. 94 – 95). Paragraph headings include: "Smart lock"; "Lock it down"; "Apps with a side [sic] of malware"; "Google Play Protect"; "App Permissions"; "Apps accessing your Google account"; "Two-factor Identification"; "Find your lost Android"; "Chrome Safe Browsing"; "Screen Pinning"; "Device Encryption"; and "Anti-malware apps". This is a comprehensive, useful article, and some of our members who attend Graeme Munro's Android group would certainly enjoy it.

## MAC, IPHONE AND IPAD

Over the years I've noticed a lack of articles concerning Apple devices in a number of the magazines which we review. Owners of those devices could feel neglected. But not in the present issue of **TECHLife** where the most useful articles appear to me to be for those in the Apple stable. A major article is "89 time-saving tips for Mac, iPhone and iPad" (pp. 56 – 67). Although I own an iPad and am certainly impressed by it, I'm not enough into the Apple system to be able to offer particularly useful comment on these tips. Nevertheless the general impression I get is that **TECHLife** has done its usual good job and clearly communicated a range of worthwhile suggestions.

Frustrated Windows owners tend to think that nothing goes wrong with an Apple computer, but the article "Mac Genius Handbook" (pp. 68 – 79) gives the lie to that, and it sets out a range of solutions to some realistic problems. If I owned a Mac I'd want a photocopy of this article.

**Australian Personal Computer** (March 2019)<sup>3</sup>

## PROTECTING YOUR COMPUTER

The lead article, "Lock-down your PC now!" (pp. 40 – 54) is an excellent survey on how best to protect your computer. It is practical, detailed – and slightly overwhelming. But if you are uncertain about this sort of thing, this is an excellent place to start. Useful sections include: "Tighten Up Your Security"; "Secure Your Cloud Backups"; "Lockdown Your Network"; "Protect Yourself Online"; "Chat Securely"; And "Beef Up Your Passwords". The major section is on Windows 10 security suites. There are detailed reviews of a number of them, and 19 of these programmes are comparatively tested. Most of our members, however, are running Windows Defender. It comes with Windows 10 – and is free. As you would hope, it scores well in these tests.

## QUANTUM COMPUTING

A major article in this issue is on "quantum computing" (pp. 64 – 67). Quantum computing is important, among other things because the countries working on its development may be able to use it to break other countries' encryption systems. If you are interested in quantum physics, but have been put off by fascinating but difficult-to-grasp ideas like superposition and entanglement, there are sensible, short explanations here. And then the article goes on to discuss some of the extraordinary implications of this next great step forward in this computing area. Good stuff

<sup>3</sup> This magazine now incorporates the former **PC&Tech Authority**. That publication was of value to us, but there is clear evidence from looking at the current absence of computer magazines on our newsagents' shelves that the market for computer magazines is shrinking apace. **PC&Tech Authority** is a casualty of that, and we're sorry to see it go.

## DO BACKUP

The lead article in this issue is "The 2019 Backup Guide" (pp. 44 – 61). It certainly comprehensive, covers both Windows 10 machines and Apple computers, and if you'd like to know more about this sort of thing – because you're not already doing it - then this is required reading. If, however, you're already using Macrium Reflect regularly, then you're doing the right thing, and you don't need this article. Of general interest, the article features a programme called "Paragon Backup and Recovery Free" - rather than our old friend, Macrium Reflect. Why? The article says, "There's only one reason to consider switching to Paragon Backup and Recovery Free: the latter's support for incremental drive images. Incremental changes take up less space than differential ones, so switching to Paragon would make it more practical to back up your Windows installation on a daily – rather than a weekly – basis". There will be debate in SeniorNet about that matter.

## THE BEST WINDOWS 10 APPS FOR 2019?

This is a sure-fire type of article for a computer magazine (see pp.62-67). The temptation for readers to see what the editor thinks are the best apps - and to check them off to see whether you've got them - is approaching irresistible. So without further explanation or com-

### 25 of the best ...

#### A LIFESTYLE AND ENTERTAINMENT

1. Zen: colouring book for adults
2. Netflix
3. Spotify
4. Amazon
5. Plex

#### B MEDIA

6. VLC
7. Photoshop Express
8. Photo Shader
9. Polarr
10. Fotoroom

#### C PRODUCTIVITY

11. Evernote
12. Microsoft To-Do
13. Plumbago
14. Microsoft Office Online
15. Wunderlist

#### D HOME AND FINANCE

- 16) FamilyBudget
17. HotSpot Shield Free VPN
18. Spending Tracker
19. Simplenote
20. MoneyPoint

#### E NEWS AND SPORT

21. MSN Sports
22. Flipboard
23. Save to Pocket
24. Readiy
25. AccuWeather

ment on them, I'm listing the 25 he nominates. (They are all available from the Microsoft store and have been checked for malware.)

## LINUX CORNUCOPIA

It is a matter of some surprise to me that very few of our members ever mention Linux. I find it surprising because Linux is potentially so useful. It is an operating system which is widely used in commerce and industry, which is stable and highly efficient, and (please note) is free. Moreover, it has a small footprint, and one of its greatest virtues is that it can keep old computers running sweetly – long after they have failed to be of any use in the Windows 10 environment. Against this background, it may be surprising that I mention Linux in a SeniorNet context. But I do so because of an extraordinary article in this issue. It is entitled, "Top 100 Linux Tools" (pp. 68 – 75), and I wouldn't want any of the handful of people at SeniorNet who care about Linux topics not to know about this admirable depository of Linux apps. They will know gold when they see it.

## TECHLife Australia (May 2019) SPOTIFY UNMASKED

Exam question: Where does music rank among the great consolations? (Markers' guide: the student's answer should indicate that music should receive a pretty high ranking. Extra marks will be given for a mention of Spotify.)

I have been told that the torch has passed from CDs. The focus now is on music streaming and, in that context, first in the field is Spotify. Now, like all of us I had certainly heard of Spotify but, being of a cautious disposition, I had not used it. Now with the article, "Digital Guru: Spotify" (pp. 28 – 30) I have no excuse. It's all here – how to get started, how to download songs for off-line playback, how to get our quality playback, and on it goes. This is the sort of article people buy magazines for.

## ANDROID ANTIVIRUS

Does your Android phone have an antivirus program? It should. The difficulty comes in choosing which one. There's a helpful article here, "Best Android Antivirus Apps of 2019" (pp. 63 – 65). The article reviews 10 of the best antivirus tools for Android and gives the following awards:

*Winner TECHLife Ed's Choice Award*

Sophos Free Antivirus and Security

*Winner TECHLife Approved Award*

AVLHNLAB V3 Mobile Security

Avast Mobile Security

Avira Antivirus Security

Bitdefender Antivirus Free

Antiy

Mcafee Security And Power Booster Free

Norton Security and Antivirus

Trend Micro mobile security & antivirus

I should mention that Kaspersky Mobile Antivirus was also well reviewed.

## GETTING VALUE FOR MONEY WITH SMART PHONES

VERY FEW SeniorNet members appear obsessed by their smartphones – in the way that some of our, say, grandchildren are. Certainly, I haven't met anybody who is openly lusting for the latest out of the Samsung or Apple stables. Sensibly, what our members are looking for in this context is value for money; and they recognise that



THE ILLOGICAL INNER VOICE

smart phones have now reached a plateau, and that the latest and most expensive phones – while certainly impressive – are not so very different from their predecessors of one or two years back.

Now computer magazines ordinarily do obsess about the latest and greatest smartphones. Articles about these devices, and reviews of them, are to the fore. Accordingly middle-ranked smartphones often receive very little attention. But not so in this issue of **TECH-Life**. The article, "Australia's best and cheapest smart phones" (pp. 24 – 27) is a welcome sight. It comments that there is "such a thing as a good cheap smart phone, and ever so gently all those amazing features from the flagship devices are slowly trickling down to the budget phones .... Here's a selection of our favourite budget and mid-range smart phones." If you are in this market, you need to read this article.

**R M D Munro**

## Digital Inclusion for Seniors

by **Alan Royal**

*Listed below are some web sites that may be of interest*

11 innovations that increase digital inclusion for people with disabilities:

<https://dailym.ai/2LCCSJ7>

Good Things Foundation guides:

<http://bit.ly/2LAAtVjt>

Your guide to helping older people use the internet – accessible downloadable version:

<http://bit.ly/2LDcmiO>

The Digital Inclusion Blueprint (NZ):

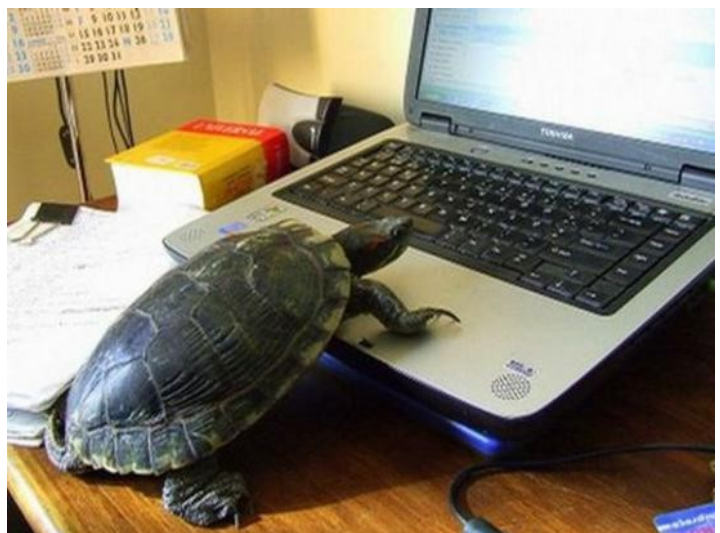
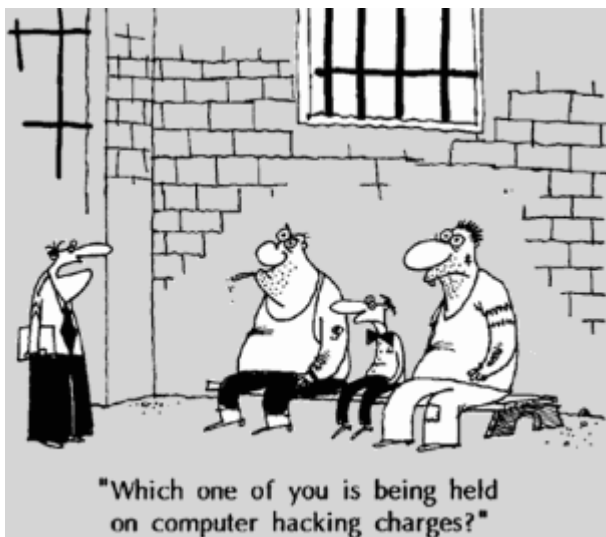
<http://bit.ly/2LBDA2Y>

Digital motivation: Exploring the reasons people are offline:

<http://bit.ly/2LDSZWJ>

Accessible downloadable version:

<http://bit.ly/2LOct63>





supplied by John Cook



## A young Victor Borge (comedian) in action

Preview YouTube video [Funny piano comedian, Victor Borge](#)

<https://www.youtube.com/watch?v=K3Z2mrpqtRo>

## 2014 Cameron Air Show

Preview YouTube video [Amazing Airshow video - Cameron Airshow 2014](#)  
Jukin Media Verified (Original)

[www.youtube.com/embed/Bu535PZzysE](http://www.youtube.com/embed/Bu535PZzysE)



2014 Cameron Air show that featured lots of smoke and fire. This air show combines some extreme sport style stunts with the traditional aircraft stunts to produce an entertaining visual experience.:

**Copy and paste above links into your favourite browser to get the article**

## Give Libre Office (LO)

### a compatibility makeover

*Submitted by Lindsay Rollo*

IF YOU ARE sending documents to family or friends who use Microsoft or Macs, there are a few simple tweaks to ensure they can read your **LO**-generated files.

Both these systems read and save in the Rich Text Format (.rtf). But note, .rtf there are some limitations in display but is OK for general texts.

For Microsoft Office versions, LO makes provision for them to be saved in compatible formats.

On the **task** bar go to Tools > Options > Load/Save section > General.

In the Default File Format ODF Settings section:, choose the '1.2 Extended (compatibility Mode)' in the drop down list.

In the '**Always Save As:**' dialog, select Word 97-2003(\*.doc).

Files saved 97-2003 can be read by all later Word versions.

End of lesson. Hope it's useful

### Even Dogs Do IT...





# 12 Ways to Customize the Windows 10 Start Menu

Submitted by Allan Chee

For those members who use Windows 10, and want do some customising of their Windows 10 Start Menu, here's something that I received from my one of my free subscriptions that I subscribe to, in this case, "How-to-Geek" subscription in April.

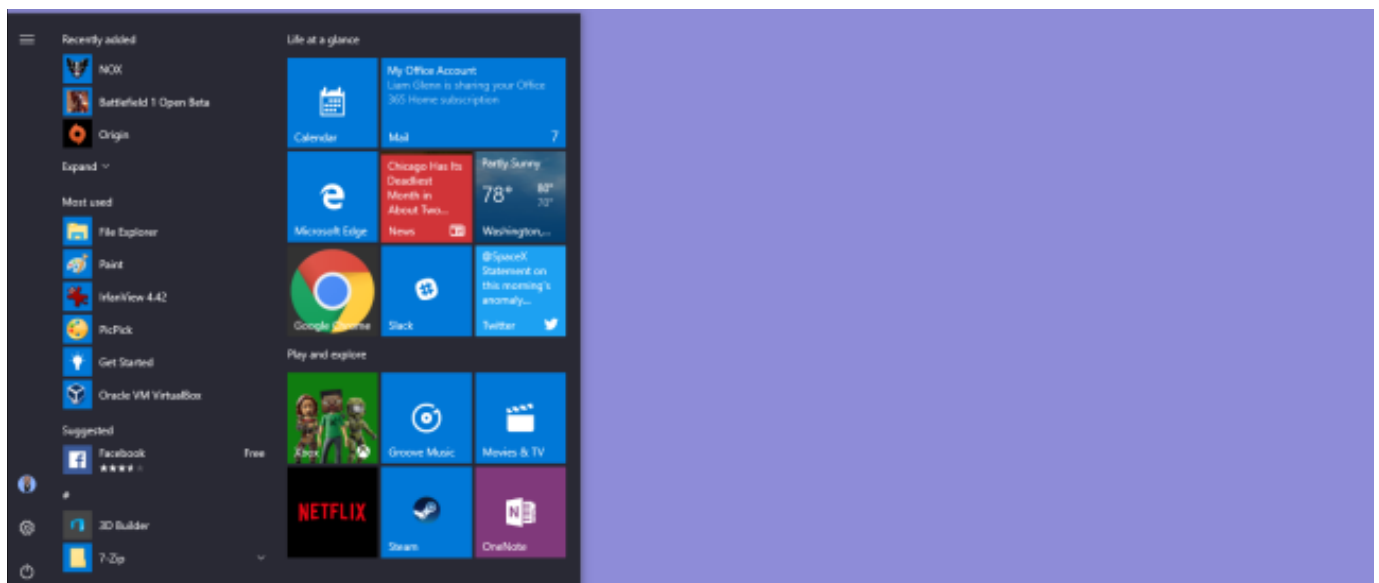
## 12 Ways to Customize the Windows 10 Start Menu

WALTER GLENN AND @wjglenn

UPDATED APRIL 12, 2019, 9:22AM EDT

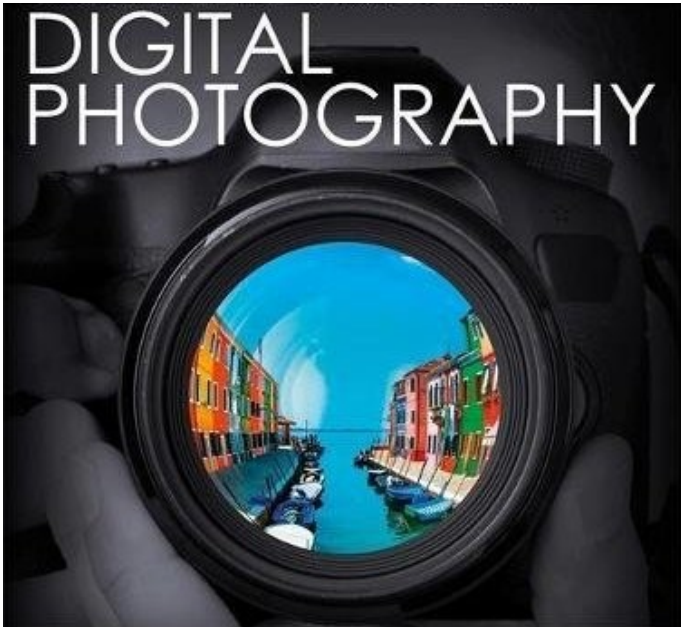
<https://www.howtogeek.com/197836/8-ways-to-customize-the-windows-10-start-menu/>

Copy and paste above link into your favourite browser to get the article



1. Organize, Edit, Delete, or Add New Items to the Apps List
2. Resize the Start Menu
3. Pin and Unpin Tiles
4. Resize Tiles
5. Turn Off Live Tile Updates
6. Group Tiles Into Folders
7. Remove All Live Tiles if You Don't Like Them
8. Change the Start Menu (and Taskbar) Color
9. Control How Your App Lists Appear on the Start Menu
10. Use a Full-Screen Start Menu
11. Choose Which Folders Appear on the Start Menu
12. Remove Suggested Apps from Your App List





## PIXELS & SENSORS

**Pixels:** -, everyone talks about "pixels". Can we have too many, or, too few. They are in our cameras, cell phones, TV's, medical monitors, kitchen appliance monitors, and the list goes on. This article is about cameras and cell phone cameras.

A **pixel** is a tiny dot or square of colour that is part of a **digital** image. ... There are one million **pixels** in a megapixel. **Pixels** are created when the light that flows through the **camera** lens is captured into a device inside the **camera** called the Image Sensor.

Image sensors come in different sizes. The larger the image sensor, the larger the pixels can be, and the more photons each can collect. The result is a picture that is cleaner, with less image noise (graininess), and typically a finer differentiation and delineation of high-lights and shadows.

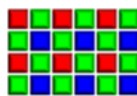
**Photons** are electromagnetic waves that propagate in wave packet. Those wave packet carry a defined quantized amount of energy. When a **photon** interact with an **electron** it will give away its energy to the **electron**. The **electron** will have more energy and hence a larger velocity. This is where the problem begins. When the photons hit the pixel "well" the electrons therein race around at a normal speed and all is OK but if they are "over worked" they generate heat which alters the pixel chromatically (colour wise) which is the most annoying type of "noise". These appear as colour blotches and in other ways to. The answer is to not have too many pixels in a small sensor, but we need as many pixels as possible to make a "nice, precise" image. That is the trade-off. The pixels become overworked in difficult lighting conditions. Camera and cell phone manufacturers have come up with relatively small "in camera" programs to try and apply corrections to the errant pixels but the result is usually a softer image, i.e. the image is no longer crisp.

To get a rough idea of any camera's sensor size, look at the diameter of the lens. An 8-megapixel smartphone camera packs 8 million pixels onto a minuscule sensor about the size of a baby aspirin tablet. However, an 8-megapixel compact camera has a significantly larger sensor, about the size of a pinky fingernail, so each individual pixel is bigger and deeper. That allows it to capture more light without the light spilling over to adjacent pixels — which is a prime cause of noise (a grainy appearance) and ghosting (a double image).

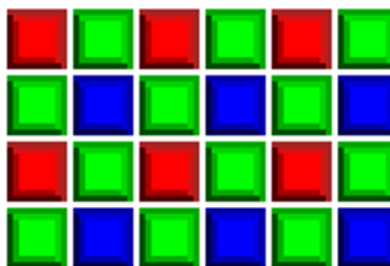
However, this is **changing**. With newer smartphones, such as the [iPhone 7](#) and [Samsung Galaxy S7 Edge](#), the size of the individual pixels has increased (to 1.22 microns for the iPhone and 1.4 microns for the Samsung), making them about the same size as those in many point-and-shoot cameras. A micron is a unit of measure in the metric system equal to 1 millionth of a meter in length (about **39 millionths** of an inch). The average cross-section of a human hair is 50 microns. The human eye cannot see anything smaller than 40 microns in size. That makes the iPhone and Samsung pixels incredibly small. By comparison my Canon APS-C size sensor (18MP) is 22.3µm on the long side = 5184 pixels. Each pixel is 4.3 microns, 3.5 times larger than an iPhone, makes for quality images when "blown up".

Advanced compacts, mirrorless cameras and semipro and professional DSLRs come equipped with even larger sensors ranging in size from a postage stamp (known as APS and Four Thirds) to a comparatively huge "full-frame" sensor of about 1.5 by 1 inches found in top-of-the-line DSLRs. So, all compact will capture better images than your 8-megapixel smartphone.

### Compact Camera Sensor



### SLR Camera Sensor



**The Bayer filter** as seen above is a colour filter that is bonded to the sensor substrate to allow colour to be recorded. The sensor on its own can only measure the number of light photons it collects. It has no way of determining the colour of those photons. As such, the sensor itself can only record in monochrome.

The diagram of the Bayer pattern is made up of alternating rows of Red/Green and Blue/Green filters. The red filters, for example, will only allow red light photons to pass into the pixel below it.

Similarly, the green and blue filters, will only allow green and blue light, respectively, to pass into the pixels below.

In this way, when the pixel measures the number of light photons it has captured, it knows that every photon is of a certain colour. For example, if a pixel that has a red filter above it has captured 5000 photons, it knows that they are all photons of red light, and it can therefore begin to calculate the brightness of red light at that point.

### Can you have too many megapixels?

Having more pixels than you really need can hurt image quality. That's because when you upload an overly large picture to social media, output it to a printer or send it to a photo book producer, your image will be downsized automatically. In other words, the software or upload process will randomly delete pixels without the smarts to understand what might be critical in the picture, such as the sparkle in a child's eye or the razor-sharp edge of a leaf.



How many megapixels do you need for prints? Come to our Digicam FREE meetings to find out .... Bryan Carver.

*PS. Einstein spent years working on photons and his theory of relativity.*

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## Senior trying to set a password

**WINDOWS:** Please enter your new password.

**USER:** cabbage

**WINDOWS:** Sorry, the password must be more than 8 characters.

**USER:** boiled cabbage

**WINDOWS:** Sorry, the password must contain 1 numerical character.

**USER:** 1 boiled cabbage

**WINDOWS:** Sorry, the password cannot have blank spaces.

**USER:** 50damnboiledcabbages

**WINDOWS:** Sorry, the password must contain at least one upper case character

**USER:** 50DAMNboiledcabbages

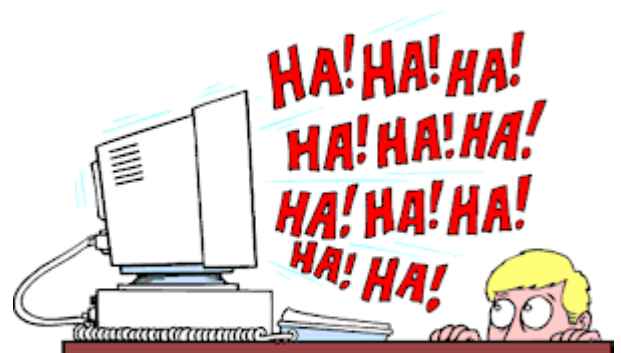
**WINDOWS:** Sorry, the password cannot use more than one upper case character consecutively.

**USER:** 50damnBoiledCabbagesShovedUpYourAssIfYouDon'tGiveMeAccessNow!

**WINDOWS:** Sorry, the password cannot contain punctuation.

**USER:** ReallyPissedOff50DamnBoiledCabbagesShovedUpYourAssIfYouDont GiveMeAccess  
Now

**WINDOWS:** Sorry, that password is already in use



## SENIORNET HELP CENTRE (weekly)

The Help Centre is set up to help those new to computers and those wishing to upgrade their skills or experiencing problems using their device. We offer one-to-one assistance in a cheerful, friendly environment and while we don't have all the answers we can usually point you in the right direction.

Mondays 10.00am – 12.00 and 12.30pm – 2:30pm

## TUTORIALS

**10am-12 Noon** Tutorial or Interest groups as some people know them are a great opportunity to learn something new, learn from others' experience, share knowledge and enjoy fellowship while doing so. All members are welcome to attend these tutorials. There is no attendance fee for tutorials. The monthly series are scheduled as follows:-

**Androids and Microsoft users Group** 4th Tuesday of each month

**COG; Computer Owner Group** 2nd Wednesday of each month

**Q&A; Questions and Answers Group** - 4th Tuesday, of each month

**Digicam users Group** 2nd Thursday of each month

**iOS user group;** (iPhone/iPad) 1st Friday of each month

**Apple Mac user group;** 3rd Monday of each month

## WORKSHOPS

Workshops provide a 2-hour presentation on a variety of interesting topics suggested by members.

Please watch the SeniorNet website at

<https://www.wellingtonseniornet.co.nz>

for upcoming events and don't forget our online Calendar, Click on the Calendar item you are interested in and there may be more details about the course or workshop etc.

## SHORT COURSES

At this time, there are no short courses .



"If I send my prayer as a text message, will I get a faster reply?"



"I'd like you to do a presentation on business ethics. If you don't have time to prepare something, just steal it off the Internet."

**COUNT ME IN!**  
**Volunteer**

**Volunteers' Days**  
Thursday 4 July, 10-11am  
Thursday 8 August 10-11am

**Visitors' Day**  
Friday 21 June, 12.30pm

