July 2024

PC MONITOR

Durham Personal Computer Users' Club Newsletter



DPCUC General Meeting

Our Club meets monthly on the second Thursday of each month.
All meetings are currently held using Zoom.

We hope some day in the future to be able to meet in person again.

Please visit the Club Web Page for all the latest links and information http://www.durhampc-usersclub.on.ca/

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Next Meeting

All About 3D Printing

by Peter Camilleri and others

On ZOOM - Thursday, July 11 2024, 7:00PM



- By Dan Delong

Detecting AI Text and Videos

A fake persona, that is, replacing one person's face with another during a conference call, has already led to huge financial losses. In one case, 25 million dollars was transferred on the say-so of a faked CFO.

In the accompanying screen grab, taken from a face swapping AI live video program, notice that hair, gestures, and clothing remain the same, yet the face has been replaced.

https://ai.weface-swap.com/

Synthesia avatars, turns text into convincing talking heads. Version 2.0 will soon produce full bodied avatars, that interact with a virtual environment, while acting out video transcriptions in many languages.

https://www.synthesia.io/2

DIVID (Diffusion-generated Video Detector), developed at Columbia U., can detect faked video with great accuracy. The same can be achieved for AI generated text, showing up in chats or in search queries. https://gadget.co.za/detectingaivideos1/

Wired Magazine has a lot to say about deepfakes. https://link.wired.com/public/35856136

Malicious N. Korean Chrome Extensions

TRANSLATEXT, now on GitHub, can bypass most security measures, to harvest your emails, usernames, passwords, and cookies. Main targets appear to be persons in S. Korea, who are involved in education and politics. https://www.techradar.com/pro/security/north-korean-hackers-are-using-malicious-google-chrome-extensions-to-try-and-hack-your-data

DJI Drones and US ban

Drone operators in the States and Canada must follow certain rules. Since DJI, a Chinese maker of good, cheap, drones, may soon face a US ban on sales, the company is about to expand into the rapidly growing e-bike market, with best-inclass e-bikes, designed for demanding trails.

 $\underline{https://www.techradar.com/health-fitness/bikes/forget-drones-dji-could-soon-hit-the-trails-with-a-shock-move-into-e-bikes}$

US bans on China extend to graphics cards and large language models, like Chat GPT and OpenAI. China has taken proactive steps to counter by smuggling GPUs into China and wooing other firms in the AI field, to migrate from the a for mentioned Western controlled AI models.

https://www.tomshardware.com/tech-industry/artificial-intelligence/local-chinese-firms-rush-to-fill-the-ai-void-after-openai-abandons-china-market-tencent-baidu-and-alibaba-sweeten-ai-offers



Single Player Games that require constant internet

Game makers have gone so far as to cut off play for any machine lacking a reliable connection. Perhaps these game makers simply wish to monitor usage and notify about updates. Yet, the practice of requiring a connection makes no sense to players, who have paid good money to be able to play (or at least, watch) the story telling portion of such games.

https://www.digitaltrends.com/gaming/its-time-for-the-age-of-always-online-video-games-to-end/

Better EV Battery

Bob Bell, a club member and EV owner, noticed this item from **Geely**, a Chinese battery maker, concerning its claims for a 50 year car battery, with fast charging and the ability to self-heal when injured, It should last longer than the life of most modern cars. China supports a successful EV manufacturing sector beyond its borders, with high quality and low prices.

[Why shouldn't prices be lower, for cars with fewer parts and a much simpler propulsion technology?]

China still has the advantage of cheap labour and plentiful raw resources.

Batteries have long been the most expensive and failure prone component in electric cars. But Toyota, in the same article, believes these batteries can be reduced in price by 40%.

[Polestar and Volvo, both now owned by China, may be first to obtain these better batteries. (Perhaps Vietnamese VinFast as well.)]

https://interestingengineering.com/energy/geely-battery-50-year-3500-charge-cycles

XIAOMI – stunning EV

This Chinese smartphone company is moving on – to the manufacture of cars that rival Tesla, and Porche. The SU7, the latest Ziaomi car model, accelerates faster than the Tesla Model 3, and goes 800km before recharge (with the larger double battery pack). A five minute top-up charge is good for 250km. The price will most likely undercut competitors – perhaps under \$50,000 USD. The SU7 is equipped with self-driving technology that includes LIDAR sensors.

https://youtu.be/72qKuJMNjCQ?si=2attEtkOgg2jyzDY

Lenovo Android Tab Plus

This 11 inch touch screen tablet runs on Android 14 (eventually updated to Android 16). It's like a smartphone (without the phone parts). The **Tab Plus** runs all Android apps and is really meant for music, video, and photo buffs. It has a 3.5mm audio jack and four Dolby Atmos speakers.



Kids will like it too, since many apps are designed for youths and young children. A support kickstand is standard, although keyboard and pen are optional (It has 8MP cameras are front and back). When in standby mode, the tablet reverts to a clock face or a slide show of stored photos. **Last year's version** is still available in Canada for \$350.

https://www.lenovo.com/ca/en/p/tablets/android-tablets/lenovo-tab-series/lenovo-tab-p11-plus/wmd00000476

AlfaFold Leading to Cures

One aspect of **Google's DeepMind** research is devoted to protein structures - how protein molecules fold and shape themselves in ways that control our inner bodily processes. When AI is applied to the <u>AlphFold Protein Structure</u> <u>Database</u>, it can predict how each protein will work in its fluid environment, even how it will work if slightly changed, or mutated.

This database is open to medical scientists everywhere, who have made use of such predictions to improve medications that treat and cure both common and rare diseases.

Enzymes are another type of protein which can work outside the body. Hence, enzyme research into plastic degradation has been fruitful. The next step is to predict behaviours of other molecules, like nucleic acids and those involved in neural transfers.

https://deepmind.google/discover/blog/a-glimpse-of-the-next-generation-of-alphafold/

Microsoft appears to be dipping a toe into similar research.

 $\underline{https://www.microsoft.com/en-us/research/publication/democratizing-protein-language-models-with-parameter-efficient-fine-tuning/}$

Proton



This Swiss company initially offered secure, encrypted email (free with 5GB of storage). Proton's feature set has since grown rapidly; it now included a password manager, VPN, and cloud storage (Proton Drive). Although Proton's source code is open, users' actions are still securely encrypted, end-to-end.

<u>Proton Docs</u> (like Google Docs) is the latest addition to Proton Drive. Collaborative, professional, real-time publications are the result, with each contributor's cursor having a unique look.

If 5 free gigabytes is not enough, 200GB can be had for about \$70CAD per year or \$6CAD per month.

[I have been using the free 5GB account for a couple of years. DOCs has not yet appeared in my list of applications. Even without DOCs, I tried uploading a few files to Proton Drive. Proton

Drive was not able to display Word Perfect or Libre ODT files, but could show properly formatted pdf and docx files.] https://www.bleepingcomputer.com/news/software/proton-launches-free-privacy-focused-google-docs-alternative/

Google Reward Program

Code for running essential virtual machines on Android and Google Cloud may have holes that Google is unaware of. Hence, this quarter million dollar reward for finding and helping to **fix zero-day vulnerabilities**. https://www.bleepingcomputer.com/news/security/google-now-pays-250-000-for-kvm-zero-day-vulnerabilities/

Also, on the subject of virtual machines, Windows11's June update could cause the OS to enter a continuous re-boot sequence. Microsoft (fortunately, for some) stopped allowing the update on Vmware, CloudPC, DevBox, and Azure Virtual Desktop, until recently.

https://www.bleepingcomputer.com/news/microsoft/microsoft-resumes-rollout-of-windows-11-kb5039302-update-for-most-users/

WAVJA Claims More Efficient Sun Power

Is this "Photon Energy System" for real? Does it reduce the collecting area 30 times and create 7.5 times more power than current solar panels? You be the judge, because these claims are both new and untested. [Comments, that accompany the article, as well as the narrator's claims, are a "hoot".] https://youtu.be/H-8y8uG6Ojw?si=TMX0z3SfjISHwlhg

Military DoD and the Cloud



The Cloud may not seem like a good place to run a war operation, but this plan may still have merit. Remember, the internet began as a reliable military communications protocol. So, why not use the Cloud, which is a fairly recent extension of the internet, for other military operations?

The Pentagon also purchased the most powerful super computers, to run simulations and provide real-time tactics. Supercomputers are also used for scientific research. These military super computers are isolated... shielded (we hope) from snooping. Perhaps the Cloud is sufficiently secure, these days, to let those in the field of battle, and others in the military, take advantage of their speed and power, via the Cloud. https://www.hpc.mil/

Stops Talking Device

The **SpeechJammer**'s directional microphone, when aimed at a "talker", sends the words back a split second later via a directional speaker, forcing brain confusion. The speaker will suddenly begin stuttering and stops talking due to hearing themselves. They won't know what hit them.

Could this device be used to win a debate? Has it been used to win a recent televised debate? [I have my doubts about many of the articles on MyElectricSparks.com] https://myelectricsparks.com/japanese-researchers-develop-speechjammer-to-silence-overly-wordy-speakers/

2Tb 3D QLC NAND SSD - may reach 16Tb

Along with high storage capacity comes low power, and faster reads and writes. https://www.tomshardware.com/pc-components/ssds/16tb-m2-ssds-will-soon-grace-the-market SAMSUNG also released a 61.44TB SSD storage unit, designed for reads rather than writes. Samsung quietly launches 61.44TB SSD, talks about a 122.88TB model | Tom's Hardware (tomshardware.com)

AI Enters the Paris Olympic Games

Except for the opening ceremonies, just about every other aspect of the games will involve assistance from AI. Each athlete will have access to personalized devices/accounts that tell them how to get around, what to eat and where, and when to arrive at events for testing and competition.

Aspiring athletes from the citizenry can also be tested, under the gaze of a smartphone, then told for what Olympic event they are best suited.

Those viewing Olympic events at home will see customized, almost real-time, action highlights and accompanying commentary (chosen by AI, rather than a large staff of people). Not all countries will see the same highlights; they will be based on the interests of the home country.

Intel is in charge of this, making use of live data and past data in the cloud. AI will allocate resources, staff & volunteers, transport, food, and spaces – all in an optimized manner. Future Olympic Committees will use this data and continue the pattern.

 $\underline{https://www.techradar.com/computing/artificial-intelligence/intel-is-infusing-ai-into-the-paris-olympic-games-and-it-might-change-how-you-and-the-athletes-experience-them$

FiiO Cassette Player

Forty-five years after introduction of the Sony Walkman cassette player, one company has revived the trend, with a basic, reliable, good sounding, rechargeable, portable, in a variety of colours, including transparent plastic. https://www.fiio.com/newsinfo/911974.html

Sony's 'light-touch' robotic arms

Surgeons are judged on their fine motor ability; that's why they get the big bucks. Some use robotic arms for laparoscopic surgery, but they all lack sufficient hepatic feed back to control the finest surgical movements. Sony has designed complex controllers that magnify the gripping force, felt by the surgeon, by ten times, while dealing with delicate movements as small as one tenth of a millimetre, allowing suturing stitches made with very fine thread.

https://www.sony.com/en/SonyInfo/research/technologies/bilateral control system/

The Minimal Phone

Memories of the Blackberry linger, especially in terms of its size, shape, and Qwerty keys. This phone carries some of those traits, having stripped away non-essentials, like a colour screen. The Minimal Phone uses a paper white screen, like E-ink for E-readers, that extends battery life considerably. The screen is nontouch, so a navbar is located just below the screen. [The included track-pad is not well explained.] The OS is Android 14, still able to run typical apps. Other features include a headphone jack, G sensor, light sensor, flashlight, compass, Dual SIMs, Wi-Fi,



vibration, proximity sensor, wireless charging and USB-C, 16MP and 5MP cameras, Gyro, finger print unlock, and E-ink refresh. Earlybird delivery in October is priced at \$400USD. https://www.minimalcompany.com/

Free Linux Wallpaper from Manjaro



Linux in the News

by Alex Morrison



New Raspberry Pi OS Release Brings Many UI Improvements and New Settings

Raspberry Pi OS 2024-07-04 is now available for download with multiple UI enhancements to the Wayland desktop and new settings. Here's what's new!

KDE Gear 24.05.2 Is Out Now with More Fixes for Your Favorite KDE Apps

KDE Gear 24.05.2 software suite is now available with various fixes and other changes for several KDE applications and core components. Here's what's changed!

KDE Plasma 6.1.2 Is Out to Improve the Overview Effect and Fix More Issues

KDE Plasma 6.1.2 is now available as the second maintenance update to the latest KDE Plasma 6.1 desktop environment series with more bug fixes. Here are the details!

Daphile – Linux appliance distribution for audiophiles

- LinuxLinks; By Erik Karlsson (Posted by Scott Ruecker on Jul 5, 2024 10:25 PM EDT)
- Groups: <u>Linux</u>; Story Type: <u>News Story</u>

Daphile is a headless music server operating system. This provides an audiophile class music server and player OS – targeted to dedicated headless PC.

- Full story
- Read more
- 0 threads and 0 posts

8 Top Data Analysis Free and Open-Source Tools for Big Data

This feature highlights the finest data analysis tools. Hopefully, there will be something of interest for anyone who needs to analyze huge volumes of unstructured data.

DPCUC President's Notes

by Peter Camilleri

I recently managed to catch an excellent APCUG presentation. Two topics were of interest to me.

The first dealt with 18 things to do with an old computer. A few interesting ideas included:

- Setting up a media server to serve up music, movies, etc on your home network.
- Setting the old machine up as a NAS (Network Attach Storage) for shared storage, backups on your home network.
- Experimenting with alternate Operating Systems. Try out Linux or others without risking your main machine.
- Creating a Chromebook clone for simple web browsing tasks.
- Using the pretty motherboard and parts to create "artworks"?

The second topics was a bit more alarming. In their unmitigated greed, Microsoft is now using Windows 11 to sell advertising in YOUR start menu. A long and complex procedure to prevent this piracy of our personal space was presented. Let me say that it may me even happier to be using Windows 10.

There is however a ray of hope. A project called Windows 11 Government Edition seeks to create a version of that OS without all the bloatware, spyware, and greedy hardware requirements of the standard issue junk. It sounds awesome, but it's also too good to be true. Seems that this is a fake version of Windows. So where's the hope? With multiple efforts clearly being made in this regard, we may yet see some relief for the M\$ tyranny.

Here is a great article on this software:

https://www.ghacks.net/2024/07/01/windows-11-government-edition-is-what-everyone-wants-but-there-is-a-catch/

Finally, as wars rage on unabated, Pray for Peace.

Peter Camilleri, President DPCUC

Linux - LocalSend



LocalSend is a program designed to facilitate transfer of files from one computer to another on the local network.

LocalSend cannot transfer to anywhere on the Internet.

Local send is available for any operating system. Get it here ---> https://localsend.org/download

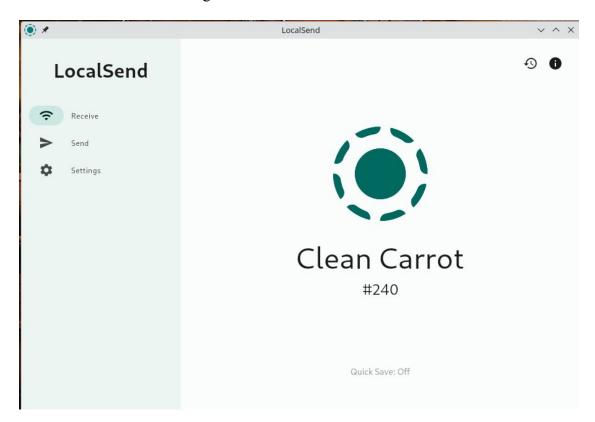
I will show a few images to illustrate how it works.

One caution – LocalSend will need you to either turn off your firewall or create a bypass in the firewall settings.

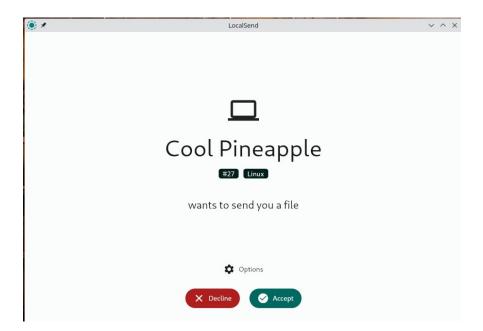
Here is the opening screen.

When opened on any PC the PC is identified by a unique name. Clean Carrot is the name my PC has.

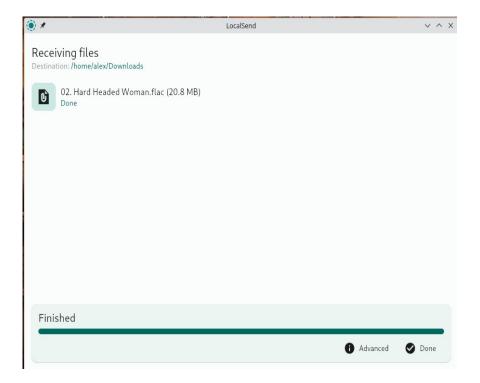
I will click Receive to wait for an incoming file.



The next image shows that another PC [identified by Cool Pineapple] wants to send me a file.

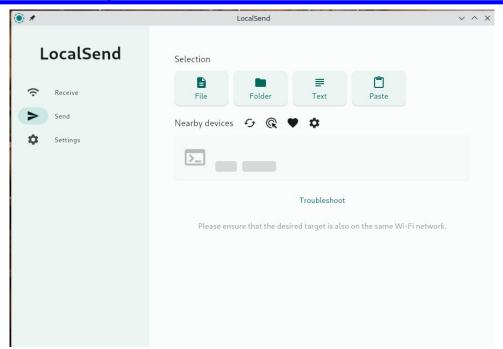


When I click accept the file is transferred to my system as illustrated below.

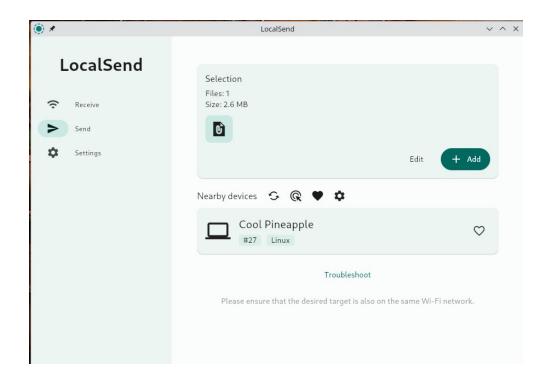


I just click Done when finished.

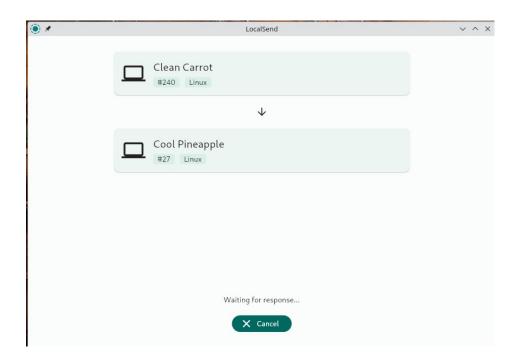
Now I click Send and click on File to search for a select a file to transfer.



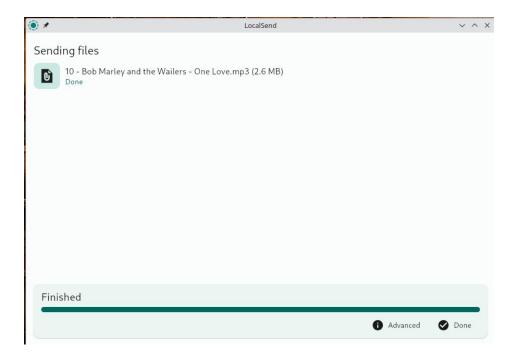
After choosing a file nearby devices will appear



When I click on the Cool Pineapple name the program waits for a response from Cool Pineapple.



When the file is accepted the transfer occurs and I can click Done when it tells me it is finished.



We ran a demo of LocalSend at the last Linux meeting. The Linux meeting is the first Thursday of each month. Anyone wanting to attend just send me an email and I will add you to the distribution of the Zoom link.

Sudoku

July 2024

by Alex Morrison



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Sudoku

The game boards on this page were produced using **Sudoku** on MxLinux 64 Bit running KDE Plasma.

The objective is to fill in the missing numbers ensuring that every 3 X 3 grid has the numbers 1 through 9 with no repeats and every full column or row has the numbers 1 through 9 again with no repeats.

If you have troubles solving the puzzles send an email to me and I will send you the solution.

Have fun! Alex

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IF you don't Like Sudoku puzzles – try these pages

https://www.boatloadpuzzles.com/playcrossword

http://www.freegames.net/puzzle-games.html

https://www.cryptograms.org/play.php

SPECIAL INTEREST GROUPS SIG's

Special Interest Groups are for members only.

SIG's are really free monthly seminars with question and answer sessions following the presentation(s)

Members of SIG's enjoy a feeling of community and share common goals and interests

Most SIG's are informal and members who attend them set the agenda for the meeting based on their own needs.

New ideas for SIG groups are welcome

Special Interest Groups

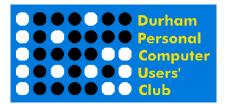
Durham Linux User Groups

Coordinator: Ed Goudge

Our Linux group meet on the first Thursday of every month.

All meetings are currently held using Zoom.

We hope some day to meet again in person.



DPCUC EXECUTIVE

2022-2023

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