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From The Chief Editor's Desk...

Not everything that has come out of the coronavirus pandemic has necessarily been negative. Even in areas where lockdowns and isolation have closed restaurants, bars, indoor movie theaters, and other “non-essential” businesses, it has given new life and a resurgence to other business models that were well on their way to extinction.

I’m talking about drive-in movie theaters. Originally started in Camden, NJ in 1933, they exploded in popularity during the post-WWII years. Then, in the 1950s and 1960s, they peaked at over 4,000 drive-in theaters in the U.S. alone, and some estimates were over 5,000 worldwide. Drive-in movies have also served as a backdrop for scenes in such blockbuster movies, such as Grease and Twister.

Then came along cable TV and the popularity of home video, first on VHS tapes, and later on DVD. Never mind streaming. That hadn’t even been thought of up until that point. The first two were enough, coupled with changing lifestyles, to kill off the vast majority of drive-in theaters.

According to DriveInMovie.com, there are approximately 330 drive-in theaters remaining in operation today. The vast majority of those are in the United States, with Canada having about 40 or so drive-in theaters left, and Australia with 16 remaining. There are a few scattered about Europe, Asia and South America. There are even some new drive-in theaters being planned for, which could result in the first net gain in drive-in theaters in many, many years.

With the need to maintain social distancing while seeking entertainment during the pandemic, drive-in movie theaters have proven their ability to allow consumers access to the entertainment choices they want, from the comfort of their cars. It allows patrons to maintain the precious social distancing that many governing bodies swear is necessary to stop the spread of the coronavirus. As a result, they have been popping up in scattered European cities last summer during the height of the pandemic lockdown. Impromptu drive-in theaters have also been popping up in such places as Walmart parking lots, as many seek entertainment while being able to maintain that social distancing.

I have a special love and attraction to drive-in theaters. Some of my earliest memories involve the family piling into the car and heading to the drive-in theater. There were five drive-in theaters in the city where we grew up, with the closest one less than a mile away. As kids, we would play on the playground before the show and during intermission (between movies), eat popcorn and candy, and drink Vess soda pop. At some point, all of us kids would fall asleep in the backseat of the car, with our next memories being either our parents carrying us to our bed, or waking up in our bed, unsure of how we got there.

Then, I started working at one of the drive-in theaters in town when I was 13 years and nine months old. I worked through the summer on what they called the “day crew.” Our responsibility was to clean up the drive-in parking lot and restrooms for the new batch of customers who would show up that night. After working on the day crew for a couple of years, I moved to working in the concession stand during the night. I also was the “marquee guy” who maintained and changed the weekly-changing theater marquee at the drive-in theater entrance. I worked at this job until I was 17 years old.

As you might imagine, the drive-in theater is pivotal in many of my earliest memories. Working at the drive-in theaters, there were many memories that had the drive-in theater as a central theme. But, like with much of the rest of the population, I drifted away from the drive-in theater and sought cable and movie rentals to fill the space in my life once occupied by the drive-in theater.

Fast-forward to 2021, and I am fortunate enough to have at least two drive-in theaters remaining in operation within an hour’s drive of me. So, we popped up a couple of batches of popcorn (none of that microwave stuff ... it had to rival movie theater popcorn!), packed some drinks, loaded up the
blankets, and headed off to the drive-in theater that’s located in the city where I live. We arrived in less than 30 minutes, and we sat in the back of dad’s pickup truck. The kids laid on their sleeping bags in the back of the truck with the tailgate down, and mom and dad sat in camping chairs in the back of the truck. The kids got to watch the new Tom & Jerry movie, followed by Goonies, from the back of dad’s pickup truck. The sound was broadcast over the FM radio band, played on a couple of portable radios we had brought along. That was a huge improvement over the solitary, tinny-sounding, monaural speaker that we used to hang on the edge of our car windows in the drive-in theater heydays!

The memories it elicited came flooding back to me. The sounds. The smells. The atmosphere. The dust. The same idiots driving through the parking lot after dark with their lights on. None of it had changed. And I was excited to share the experience with my own children, 50-plus years after my parents had shared that experience with me.

Until next month, I bid you peace, happiness, serenity, and prosperity! And, if you get the chance, go catch a movie at a drive-in theater!

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This month’s cover, “enhanced” by Meemaw, celebrates the running of the Kentucky Derby. The Kentucky Derby is the premiere horse race in the United States, and kicks off the horse racing season in the U.S.
Prism Project: Everyone Is In Bed With CIA & NSA!

by Agent Smith (Alessandro Ebersol)

In 2013, Edward Snowden revealed the U.S. government’s largest spying scheme

Edward Snowden, one of the most famous whistleblowers of our time, has brought to light the many surveillance programs and other spying activities of the United States government. This former intelligence officer revealed top secret documents to Glenn Greenwald (then working for The Guardian) and Laura Poitras, a freelance journalist, in May 2013 at a hotel in Hong Kong.

Snowden will go down in history as one of America’s most important whistleblowers, alongside Daniel Ellsberg and Chelsea Manning. He is responsible for handing over material from one of the most secretive organizations in existence - the NSA.

In a note accompanying the first set of documents he provided, he wrote: “I understand that I will be made to suffer for my actions,” but “I will be satisfied if the federation of secret law, unequal pardon, and irresistible executive powers that govern the world I love are revealed, even if for a moment.”

Snowden has traveled to many places, as after his revelations he became a highly sought-after individual by the US authorities. He fled to China, where he revealed the aforementioned secrets, and then went to Russia. There were attempts to have him asylum in Brazil, but he preferred Russia, where the influence of the American government would not reach him.

Edward Snowden, today

Now 37, Snowden lives in Moscow, Russia. His girlfriend from his NSA days, Lindsay Mills, also an American, joined him in Moscow in 2014 and the two were married in 2017. She announced in late October, 2020, that they were expecting a baby boy, who would have Russian citizenship.

In October 2020 Snowden gained Russian citizenship and permission to live in Russia indefinitely. Sen. Rand Paul and Rep. Matt Gaetz, as well as recently pardoned Roger Stone, all urged President Trump to grant Snowden clemency. In an Oval Office interview with The Post in August 2020, Trump said he was open to allowing the whistleblower to return from Russia without going to prison.

The article I wrote about not breeding crows, which came out in the March 2021 issue of PCLinuxOS Magazine, had very good feedback among readers. I had several positive messages, where folks said they enjoyed reading it. One reader, however, asked me for more, and he asked me for sources as well, as well as for evidence.

Unfortunately, these subjects have no tangible evidence, at least not at the present time. Maybe in 20 or 30 years, with the freedom to access information laws, all the shenanigans will come to light, but I personally doubt it, since there are things that have been hidden for more than 50 years.

What we can do is present facts, and then connect the dots. And at the end of the article, I will show how connecting the dots works. But for those who want more of the dirty deeds of our Big Tech companies, here is Prism Project, which the hero Edward Snowden revealed, and I bring some details.
In December 2020, the couple's first child, a baby boy, was born and announced on Twitter.

Snowden and his family, December, 2020

The Prism Project Revelations

Snowden's greatest revelation was about a program called PRISM, under which the National Security Agency (NSA) accesses emails, documents, photographs, and other sensitive user data stored at big companies.

Microsoft became the first PRISM partner in 2007 and the NSA began collecting large amounts of data from its servers. Other companies joined the program in due course. In 2008, Congress gave the Justice Department the authority to compel a reluctant company to "comply" with PRISM requirements. This means that even companies that were unwilling to join the program voluntarily had to do so at the behest of a court order.

PRISM began in 2007 in the wake of the passage of the Protect America Act under the Bush administration. The program is operated under the supervision of the U.S. Foreign Intelligence Surveillance Court (FISA Court, or FISC), pursuant to the Foreign Intelligence Surveillance Act (FISA).

The documents indicate that PRISM is "the number one source of raw intelligence used for NSA analytical reporting, and accounts for 91% of NSA Internet traffic acquired under FISA section 702 authority." The leaked information came after the revelation that the FISA court had ordered a subsidiary of telecommunications company Verizon Communications to turn over to NSA records the tracking of all of its customers' phone calls.

But how does this gigantic tapping of the world's communications work?

We can identify, from Snowden's statements, several methods:

• Snowden told The Guardian, in his video interview, that the NSA could access anyone's email, and even reach far back in time when necessary, strongly suggesting that the agency is copying large amounts of data.

• A slide from the presentation Snowden gave to The Guardian, says that the NSA gets data "directly from the servers of these US Service Providers," suggesting that an agent can somehow get into the computers of Google, Yahoo, etc., and use a self-service tool to get data from users.

• The tech companies mentioned in the Prism story deny that the NSA has direct access to their networks, and are now lobbying for greater public disclosure of the data they are asked to provide by the security agencies.

• The New York Times described a "locked mailbox" process in which the NSA installs its own servers in a company’s server farm. Upon request, the target companies move data from their servers to the "lockbox," giving the NSA quick access.

Now, which of the four situations above is true? Well, let Ashkan Soltani explain.

Ashkan Soltani is an independent privacy consultant and consumer advocate and former Federal Trade Commission investigator. He says it is possible that all of these statements are correct. Depending on what data the NSA needs, it employs some or all of these methods to obtain it.

"It probably varies from company to company, based on what the company is willing to do," he said. "But the way I think it works is agents issue a directive to the company, and someone at the company, or a contractor on site, or a (computer program) collects those records and loads them into a box that the NSA can access."

No technologist who was interviewed by NBC (the original article for this excerpt) for this story believes that the NSA simply hoovers up every bit of data from every technology company. Despite advances in storage and transmission speeds, that would still be technically challenging and probably unnecessary. Why recreate Google when the agency can simply ask Google for the data it wants?
Early versions of the Prism story claimed that the tech giants involved voluntarily participated in the program and had no knowledge of the queries made by the agents. But most companies said they had never heard of Prism, and that they do not allow unfiltered access to data. Both may be true, Soltani said.

However, the situation may have evolved differently. According to Bruce Schneer:

"NSA surveillance relies heavily on corporate capabilities - through cooperation, bribery, threats and compulsion. Fundamentally, surveillance is the business model of the Internet. The NSA didn't wake up one day and said: let's just spy on everyone. They looked up and said, 'Wow, corporations are spying on everybody. Let's take our piece of the pie.

As we know Big Tech's either started out aided by government capital, from these 3-letter agencies or, being older, have other arrangements. But, personal data is the currency of exchange.

Microsoft bought a company that went bankrupt? Threw money out the window? That's ok, the CIA or the NSA can help its cash flow. Just leave the backdoors always open for them, and everything is fine.

Speaking of Microsoft, according to the book "Der NSA Komplex," published by Der Spiegel in March 2014, PRISM also gained access to Microsoft's cloud service SkyDrive (now called OneDrive) starting in March 2013. This was accomplished after months of cooperation between the FBI and Microsoft.

The Washington Post reported that in the speaker's notes accompanying the presentation, it says that "98% of PRISM's output is based on Yahoo, Google and Microsoft; we need to make sure we don't undermine those sources." The Post also says that "PalTalk, though much smaller, has hosted traffic of substantial intelligence interest during the Arab Spring and in the current Syrian civil war."

The program's cost of $20 million per year was initially interpreted as being the cost of the program itself, but later The Guardian revealed that the NSA pays for expenses incurred by cooperating corporations, so it seems more likely that the $20 million is the total amount paid by the NSA to the companies involved in the PRISM program.

Connecting the dots...

As I said at the beginning of the article, we wouldn't have hard evidence for everything that has been leaked, apart from all the evidence that Edward Snowden leaked to The Guardian in 2013. But, let's do some deduction exercises, they can help us get a broader view of the whole picture.

And, let's travel far into the past.

Drug Trafficking

Does anyone remember drug trafficking in the 60's and 70's?

Those who have a good memory, remember that at that time, drug trafficking was not a problem, as it became in the 80's.

In the 60's and 70's, the fashionable drug was heroin, grown in Afghanistan, and coming from the Middle East. It was a very expensive drug, and its consumption was restricted.

But, our good friends at the CIA, who needed funds to sponsor counterrevolutionaries in Central America, found a great way to make money: Drugs (cocaïne), coming from Colombia, and trafficked into the USA, with the CIA as facilitator. Since cocaine was cheaper than drugs from the middle east, they flooded the streets of the USA, and were the root of the Iran/Contras scandal.

All this can be seen in the movie American Made, with Tom Cruise.

Ironically, these days, with the whole Taliban issue, it seems that the CIA has quite a bit of control of the opium and heroin plantations in Afghanistan.

Support, training and sponsorship of dictators and terrorist agents

Who remembers that Saddam Hussein has been a CIA asset since the 1950's?

After a failed attempt on the life of General Qassim, Saddam Hussein fled to Egypt in 1959. While in Cairo, Hussein repeatedly visited the U.S. embassy to meet with CIA agents who approached him to work together to overthrow the Qassim government in Iraq. Upon his return to Iraq, Hussein was installed by the CIA in an apartment in Baghdad located directly across the street from Qassim's office in the Ministry of Defense. From his apartment on al-Rashid Street, Hussein was able to observe the General's movements and report to the CIA. In 1963, with the help of the CIA, the Ba'athist
movement assassinated President Qassim. The US is among the first nations to recognize the new government and immediately starts sending weapons to the new Ba’ath regime. Remarkably, on the eve of the Ba’athist coup, the CIA provided the insurgents with a list of 800 Iraqi communists. All of them were rounded up and murdered by the Ba’athists.

And that Osama Bin Laden was also trained and funded by the CIA?

Former British Foreign Secretary Robin Cook said:

"Bin Laden was, however, the product of a monumental miscalculation by Western security agencies. During the 1980s, he was armed by the CIA and funded by the Saudis to wage jihad against the Russian occupation of Afghanistan."

Several other authors, journalists and statesmen have stated that bin Laden was funded, armed and trained by the CIA to fight the Russians.

The CIA trained the mujahideen in many of the tactics that Al Qaeda is known for today, such as car bombs, assassinations, and other acts that would be considered terrorism today.

Insurrections and coups d’etat

The Arab Spring: Made in USA

In Ahmed Bensaada’s book Arabesque$: Investigation into the US Role in the Arab Uprisings, he reports that the uprisings that swept the East in the 2010s had at least four unique characteristics in common:

• None was spontaneous - all required careful and lengthy planning (+5 years), by the State Department, the CIA through foundations, George Soros and the pro-Israel lobby.

• All have focused exclusively on removing reviled despots without replacing the autocratic power structure that kept them in power.

• No Arab Spring protest made any reference to the powerful anti-American sentiment over Palestine and Iraq.

• All the instigators of the Arab Spring uprisings were middle-class, well-educated young people who mysteriously disappeared after 2011.

• And, it is important to note that social media played a major role in making the Arab Spring uprisings happen.

The Color Revolts

The color revolutions were CIA-instigated revolutions that replaced democratically elected pro-Russian governments with equally autocratic governments more friendly to US corporate interests:

• Serbia (2000) - Bulldozer Revolution
• Georgia (2002) - Pink Revolution
• Ukraine (2004) - Orange Revolution
• Kyrgyzstan (2005) - Tulip Revolution

The Fall of President Roussef

On December 17, 2013, Snowden wrote an open letter to the Brazilian people offering to help the Brazilian government investigate allegations of US spying. Brazil had been in an uproar since Snowden revealed that the US was spying on President Dilma Rousseff and employees of Brazil’s state-owned oil company, Petrobras.

Two years later there was the opening of impeachment proceedings of the president, with information leaked to the media, of corruption in the state oil company. The involvement of the president was never proven in the corruption cases, but the media campaign has worn down the government so much that the impeachment was inevitable.

The picture is very clear, those who don’t want to see it can’t see it

Now, let’s do the deduction exercise I mentioned before. All these events listed above, follow a pattern: They are movements, people, governments, organizations, which are generated, trained, sponsored, in short, created by North American three-letter agencies. And, not rarely, these creations, these agencies, in the best Frankenstein effect, come back to attack the USA and its people. The USA (and the world, consequently) are victims of their (CIA/NSA) own creations. Or, as Tony Stark (Robert Downey Jr.) said in Iron Man 3: “We create our own demons”.

The 3-letter organizations were present in the creation of Big Tech’s. Today, Big Tech’s have grown so large that they interfere with the communications, culture, information, and freedoms of both the American people and the rest of the world.
The poor victims of the cruel and oppressive government

If you ask these corporations, they will tell you that governments are the big villains and that they should not have access to our data. But what about the corporations themselves? Why should they have access to our private data? At the very least, with a democratic government that you elected (let's be naive for a moment here) you at least have the facade of representation. You have some power here, however minuscule or inconsequential it may seem these days, to determine that government. You have a vote. Can you say the same thing about your favorite transnational internet company? You don't have a vote there.

As mentioned before, such companies have grown to the point of permanently banning a person from social networks and media on the Internet. Gag orders, issued by corporations, not by a judge, not by a public authority, but by corporations. This is totally wrong, when corporations take upon themselves a power that belongs to the state.

Follow me, and in a future opportunity, I will write more about our favorite technology companies.

Want To Help?

Would you like to help with the PCLinuxOS Magazine? Opportunities abound. So get involved!

You can write articles, help edit articles, serve as a "technical advisor" to insure articles are correct, create artwork, or help with the magazine's layout.

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**Short Topix: New Crypto Mining Worm Targets, Attacks Windows, Linux**

by Paul Arnote (parnote)

Dortmund, Germany: Free Software Is The Standard

According to a blog entry from The Document Foundation, the council of the German city of Dortmund has announced that it's moving to free and open source software, where possible. What follows is a translation of the original German blog post.

* “Use of open source software where possible.”
* “Software developed by the administration or commissioned for development is made available to the general public.”

Open source wherever possible

With this resolution, city policy takes on the shaping of municipal digital sovereignty and digital participation. The resolution means a reversal of the burden of proof in favor of open source software – and at the expense of proprietary software. In the future, the administration will have to justify why open source software cannot be used for every proprietary software application. Based on the report of the Dortmund city administration on the investigation of the potentials of free software and open standards, open source software is understood in the sense of free software.

Public Money? Public Code!

So, the Council's decision is in line with the concerns of the campaign Public Money, Public Code. What is financed with public money should be available to the general public for use. For software, this is achieved by means of a corresponding free license. With this resolution, local politicians ensure that the city of Dortmund not only draws from the free software community, but also contributes to it. In this way, inter-communal synergies can be achieved true to the motto develop together, use individually.

Support for open standards

Through the Digital Dortmund Charter 2018-2030, among other things, Open Standards were established as a requirement for further digitalisation.

Politically unanimous in favor of Free Software

The resolution for free software is supported by a broad political base. The motion was passed unanimously by the City Council of Dortmund. The digitalisation motion was jointly introduced by the following parliamentary groups: CDU, SPD, Die Grünen (Greens) and Die Linke (The Left).

Conclusion

The city of Dortmund has ushered in the political turning point and begun the exit from the proprietary era. Now it is important that the city finds the appropriate means to implement this process practically, by means of a proprietary exit strategy and to dissolve existing vendor lock-in. For Do-FOSS, the decision of the Memorandum 2020 to 2025 is the result of a functioning democratic local discourse. The practical management work for Free Software has the necessary political backing to succeed.
Ba-Da-Boom-Boom-Boom: Another Google App Bites The Dust

Another month, another Google service or app bites the dust. Ba-Da-Boom-Boom-Boom. It has become so commonplace, that it would be news if a month went by without Google chopping off one of its many tentacles that weave through just about everything we see on the web.

Google is ruthless in cutting off its own tentacles. Launch a service or app, gain a respectable following, and then pull the rug out from under those followers/users. Google will cut off all but its most successful tentacles. For those that remain, Google's goal seems to be to screw around with them when they are working perfectly and wonderfully, until they no longer work so perfectly or wonderfully. This time, it's Google Shopping that has been sacrificed at the Google Altar.

The strictly-mobile app will be removed from the Google Play store by June, 2021. You can install it from there to see what you have (or haven't) been missing. Google assures users that it will continue to work for at least the next several weeks.

Ba-Da-Boom-Boom-Boom. And another one gone, and another one gone, another one bites the dust!

New Cryptomining Worm Targets, Attacks Windows, Linux

According to an article on the Ars Technica site, there is a new cryptomining worm botnet attacking vulnerable Windows and Linux devices. Called the Syrsv botnet, it can spread from vulnerable device to vulnerable device (read, insecure) without any user intervention (also known as assistance). Once a device is infected, the cryptomining portion of the malware gets busy mining Monero digital currency for its “owner” ... which isn't the same as the owner of the infected device.

Initially discovered in December, by March the designers had combined the worm and cryptminer into one binary. Vulnerabilities in enterprise level software and frameworks such as Mongo Express, XXL-Job, XML-RPC, Saltstack, ThinkPHP, and Drupal Ajax is how the malware finds its way onto other vulnerable systems. A Juniper Networks blog post shines even more light on how the cryptomining worm works and gains entry. At its current rate, the worm can mine one XMR (currently ~ $200 U.S.) every two days.

I do like the way the Ars Technica article concludes, “The threat from this botnet isn’t just the strain on computing resources and the non-trivial drain of electricity. Malware that has the ability to run a cryptominer can almost certainly also install ransomware and other malicious wares.” The previously mentioned Juniper Networks blog post has details about how system administrators can determine if the systems they oversee have become infected.

The Great 2021 Ketchup Catch-Up

It’s amazing how far the reach of COVID-19 is. First, there were toilet paper shortages. Then can goods, hand sanitizer, disinfecting wipes, paper towels, soups, bicycles, and a whole bunch of other seemingly unrelated stuff have taken their turn leading the lists of items in short supply.
Now, it's the individual serving packets of ketchup. When everything was shut down, ketchup makers—like Heinz—switched from packaging individual serving packets of ketchup to the larger bottles of ketchup we all have in our homes. And, it made sense, with most restaurants closed down and people spending more time at home. More people were cooking and eating food at home, so they were consuming the larger bottles of ketchup at an increased rate, while consuming hardly any of the individual serving packets.

But now that restaurants are starting to reopen, there's a shortage of the individual serving packets of ketchup. According to an article from NPR, Heinz (who has about 70 percent of the U.S. market share among ketchup manufacturers) is planning to increase production of the individual serving packets of ketchup by 25 percent. In fact, they estimate that they will have to produce 12 billion packets to catch up with the ketchup demand.

A Monkey With Implanted Neuralink Plays Pong ... With His Mind

Is there anything that Elon Musk cannot take from the realms of science fiction and turn into science fact? With Tesla, he has given us auto-piloting electric vehicles. With SpaceX, Musk is transporting NASA astronauts into space, and making plans to colonize Mars. And now, with Neuralink, one of his “other” companies, a monkey with implants in his brain can play pong. With just his thoughts. And he’s very, very good at it.

Neuralink's goal is to allow people (think quadriplegics) to control devices and computers with brain implants controlled by brain waves, according to an article on Inc. Eventually, it could lead to more efficient means of input than clumsy keyboards, mice and thumb-tapping on mobile devices for everyone.

After implanting the devices in the monkey's brain, they taught him to play pong with a joystick. Eventually, Pager (that's the monkey's name) learned to use just his thoughts to control the cursor in the Pong game. You can see Pager in action by watching the Neuralink video on YouTube.

Microsoft entered the speech recognition fight in a huge way, and in the way that Microsoft usually does: it buys its way in by buying up successful companies. The jury will still be out as far as what the outcome will be, however. Microsoft doesn't have a very good track record when it comes to the companies it takes over remaining successful (Nokia immediately comes to mind, but there are others).

Microsoft's latest “purchasing victim” is Nuance. You probably know them better as the company that has, for years, produced and sold the speech recognition software called “Dragon Naturally Speaking.” As widely reported in the computing press, as well as by Microsoft itself, Microsoft purchased Nuance for $19.7 billion (U.S.). That represents a 23 percent premium over Nuance’s closing stock price on April 9, 2021, purchasing shares at $56 per share.

Nuance is also the company that was behind the voice recognition backbone for Apple’s iOS successful Siri speech recognition and AI assistant.

The Nuance Dragon software is in widespread use in hospitals for physicians to dictate their patient progress notes, and for radiologists to dictate their radiology findings. Microsoft hopes to leverage Dragon to increase its AI and cloud offerings to medical institutions.

It doesn't sound like things have changed much with Microsoft. They behave much like the Borg of Star Trek notoriety. Perhaps their motto should be "When you can't innovate, buy up/assimilate those who do." Or, maybe that's been their business plan all along. Hmmm.
Leadership in the University of Minnesota Department of Computer Science & Engineering learned today about the details of research being conducted by one of its faculty members and graduate students into the security of the Linux Kernel. The research method used raised serious concerns in the Linux Kernel community and, as of today, this has resulted in the University being banned from contributing to the Linux Kernel.

We take this situation extremely seriously. We have immediately suspended this line of research. We will investigate the research method and the process by which this research method was approved, determine appropriate remedial action, and safeguard against future issues, if needed. We will report our findings back to the community as soon as practical.

Sincerely,

Mats Heimdahl, Department Head
Loren Terveen, Associate Department Head

Just WHO knowingly introduces security vulnerabilities disguised as fixes for other problems, just so they can test the security of open source software? Why, a team of graduate researchers from the University of Minnesota. That's who.

According to an article on Neowin, the researchers from UMN made a point to introduce vulnerabilities to the Linux kernel, disguised as “hypocrite commits,” which are fixes for other issues. They even published a research paper (PDF on GitHub) about their exploits. As you might expect, the entire drama played out on the Linux Kernel Mailing List (LKML). This message on the LKML pretty much sums up the main thrust of this issue. As a result, UMN has been banned from contributing to the Linux kernel.

The UMN Computer Science department did not take this news especially well. They posted their response in the comments section of the article on Neowin that was linked in the previous paragraph.

Greg Kroah-Hartman, one of the big wigs keeping Linux kernel on track, mentioned in another LKML post that all the patches and commits from the research group were being undone, and reverted to their previous state. The research group, which has seriously damaged its reputation with their underhanded and ill-thought-out research methods, have since posted an open apology to the LKML, but I can find little (if any) response to the apology.

PCLinuxOS Short Topix Roundup

GOOGLE HAS SWITCHED FROM USING COOKIES to using a new tracking method called FLoC. FLoC is the acronym for Federated Learning of Cohorts, and is now used by Google Chrome. It basically uses your browsing history and your search history to deliver targeted advertising to you as you traipse around the web. Google claims that FLoC affords users increased anonymity. DuckDuckGo, however, doesn’t agree. In fact, they disagree so much that they have come out with a Google Chrome browser extension that, among other things, blocks the FLoC method of serving up targeted ads. Betanews has an excellent article about the new DuckDuckGo Chrome browser extension, as does MarkTechPost.

Looking for an old article? Can’t find what you want? Try the PCLinuxOS Magazine’s searchable index!
BELIEVE IT OR NOT, THERE ARE POSITIVES COMING OUT OF THE COVID-19 PANDEMIC. Thanks to the mass release and success of the coronavirus mRNA vaccines from Pfizer, Moderna and AstraZeneca, researchers are now taking a look at using mRNA vaccines to target HIV and certain cancers. Early trial results are looking very promising.

WHEN YOU COLORIZE A BLACK AND WHITE PHOTO, most of the time you have no problem telling that it was colorized. That’s because the process is less than perfect, and doesn’t render things the same way as nature or our eyes. One of the problems is lacking to take into account how skin reacts to light, which tends to change with skin pigmentation. Skin not only reflects light, but also absorbs light and is illuminated from within by that absorbed light. A new colorization technique, called Time-Travel Rephotography, uses AI to change that, and to take into account how skin really reacts with light. Old black and white photographs can make its subjects look old and harsh, because black and white film doesn't soften any of the skin tones or textures. The adding of color helps to hide some of the harshness and aging effects. It can take old black and white photographs and produce strikingly accurate colorized versions of them.

CHARLES “CHUCK” GESCHKE, who co-founded Adobe, Inc. with John Warnock, passed away Friday, April 16, 2021, at the age of 81 years. Geschke was responsible for helping create Adobe Postscript, which provided a radical and new way to print text and images on paper, giving rise to desktop publishing. Geschke and Warnock initially met while working at Xerox Palo Alto Research Center. The two men left Xerox in 1982 to start Adobe. You can read an obituary for Geschke here and here. 

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Posted by Iuikki, on April 1, 2021, running KDE.
Using gLabels: An Update

by Meemaw

It came to my attention recently that since I wrote my previous article on gLabels, it's been nearly 9 years! While I did mention several features of gLabels, my favorite label program, I didn't do an actual tutorial or even review of the program. However, I did another one earlier. This one's the how-to, but it's been over 9 years since I wrote that.

I recently had to do some labels at work (using my Windows 10 laptop) and found myself wishing I had gLabels with me in the town where my meeting was. It would have been MUCH simpler.

gLabels is my absolute go-to for labels. It is in the PCLinuxOS repo and has been for as long as I can remember (it's been a while since I registered on the forum in 2006). The current version is 3.4.1. Let me refresh your memory. I'm sure many of you already know this, but I'm going to try to cover details anyway.

When you open the gLabels window, it's pretty blank, until you choose the label you want to use.

At this point, the only two tools that will function are the Create new file and Open file buttons at top left. Click on Create new file to start a label from scratch. The first window you'll get is one which asks which label style you want. If you have a certain label style you want, (and it seems to have most all of the standard Avery numbers saved), you can choose it from the list.

Depending on what you are doing you can turn it either way. (I haven't seen this feature in Office.)

Just under Select Product you will see 3 tabs: Recent, Search all and Custom. If you have used some recently, like I have, they will appear in your Recent tab. Search all is just what it says, a listing of all the label styles the program has. It's organized by brand, paper size and category (square labels, round labels, CD/DVD cover labels, etc). If you can't find what you need, you can always create your own, and that will be stored in the Custom tab.

The last label I did was a 2 x 4 label for a manila envelope for a project at work. They were all alike, so it was the easiest to do. The steps were as follows:

* Choose the label - mine were 2 x 4. Clicking on the 2 x 4 label illustration and clicking next, you are then asked which way you want your label oriented.

* Review Selection - The third window will ask you to review what you chose to verify your choices, then you can click Apply.

Now you will have a nice window with your label in it, ready to design (next page, top left).

You'll notice that most all of the tools work now. The first row is standard New, Open Save, Print, Cut,
The next tab says Style, where you can change font, font size, bold, italic, font color and whether the font is centered either way inside the text box. The Size tab controls the size of the text box. The Position tab controls the position of the text box in the label. The Shadow tab is where the text shadow is enabled, and where you can set the offset, color and opacity of the shadow. Also, some of the most used text tools are across the bottom of the window.

Here I have added 2 text boxes, and want the selected one centered. To do that, right click on the text box and choose **Center > Center Horizontally**.

You can add rectangles, circles, lines and images using the other tools. You can even create a barcode if you know what you’re doing. I clicked on Style and changed the Backend setting to QR Encode, then used the web address for this magazine, and got a QR code for the magazine site.

What I really like about this screen is that you don’t have to make labels for every name if you don’t want to (if you send Christmas cards, do you send to every single person in your address book?) All you have to do is uncheck the ones you don’t want to.
use. I expanded the first line so you could see that the headings are there. If I wanted to leave someone out, I would just clear the checkbox at the left. I don’t, so everyone is selected.

Click OK, go back to your label and add a new text box. Now, in your Text tab, the Add Merge Field Button will be activated. Choose your fields, then add and arrange them.

I usually close my print preview and go one step further, exporting my labels as a PDF. I’ve had trouble in the past with my printer pulling through 2 pages unevenly, and ruining both pages. If I can go back to a PDF, I can print only those pages which were ruined. Also, if I make it at home and print it at work, which I do sometimes, the PDF is really convenient because I don’t have gLabels on my work computer (unfortunately). Some labels can be printed again many times, like return address labels. If I have it saved as a PDF, the spacing is perfect and I can print it as many times as I want.

gLabels just works. Every time. Easily. I love it!

To see your merge, simply press Print, then look at the Print Preview. If it looks the way it should, you can print your labels from there.

Using gLabels: An Update

Screenshot Showcase

Posted by Meemaw, on April 3, 2021, running Xfce.
Repo Review: LosslessCut

by CgBoy

LosslessCut is a simple, yet powerful video trimming and splitting tool designed to be very fast and easy to use. As the name implies, LosslessCut manages to retain the original quality of the video you are editing by directly cutting and copying over the data stream, rather than actually re-encoding the whole video. This also means that LosslessCut can export videos much faster than a traditional video editor can.

LosslessCut has a very polished and well designed user interface. Loading a video is as simple as dragging and dropping it into the program. LosslessCut can import from a variety of video formats, such as MP4, MOV, MKV, and more. Any videos not directly supported by LosslessCut can easily be converted for editing by clicking on Convert to supported format in the File menu (This is just for preview and editing purposes only; the final video will still be exported in the original format without any quality loss).

Once you’ve loaded a video, you can begin the editing process. In the lower half of the screen, you will find the timeline and time counter, play button and keyframe seeker buttons, and the Cut Start and Cut End buttons (The small hand pointer icons). The cut start and end buttons allow you to set the beginning and end points of each video segment. To edit videos in LosslessCut, you essentially need to select which segments of the video you want to keep, and all the remaining bits of unselected video will be removed. By default, there is one long segment spanning the entire length of the video.

Clicking on the Tracks button in the upper left corner allows you to easily manage the video and audio tracks. Here, you can enable and disable specific tracks, extract and export each audio and video track separately, and import new tracks, such as a music track. Another useful feature LosslessCut has is the ability to merge multiple videos into one video file. This can be done by clicking on Merge files from the Tools menu, and then selecting the videos that you want to merge.

To remove a small section from the middle of a video, for example, you could navigate to where the section you wish to delete starts, click on the Cut End button to set the endpoint of the first segment, then navigate to where the removed section of video ends and click on the + button in the segment list to create a new segment (This new segment will stretch until the end of the video). Each video segment will appear in a list on the right side of the screen, where you can add, remove, and change the order of them. They will then be played in this order when the video is exported.

At the top of the window, you can click on Working dir unset to set the location where LosslessCut will save output files (It is set to the source folder by default). LosslessCut automatically saves a CSV project file to the output folder as you work on a video. If you wish to change the output format of the video, you can do so from the dropdown menu near the top right corner. You can also choose whether to export the segments each as separate files, or
merge them all into one video. Once you're finished editing the video, click Export and you'll be presented with an overview of the output options. Here you can change the filename of the saved video file if you wish to do so. As I mentioned earlier, LosslessCut will export videos very quickly, usually within a few seconds or so.

Summary

Overall, I'd say LosslessCut worked very well during my testing. I did, however, occasionally encounter a few problems when trying to export a video, but for the most part, the program seemed quite stable. LosslessCut's speed and ease of use makes it an excellent tool for any simple video cutting and splitting tasks.

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**PCLinuxOS Recipe Corner**

**from the kitchen of youcan too**

**Instant Pot Hamburger Soup**

**INGREDIENTS:**
- 1/2 tablespoon olive oil
- 1/2 medium onion chopped
- 2 sticks celery chopped
- 1 pound extra lean (95% lean) ground beef
- 3 cloves garlic minced
- 2 heaping tablespoons tomato paste
- 1 (28 fluid ounce) can diced tomatoes with juices
- 4 cups beef broth
- 2 large Russet potatoes diced
- 1 dash Italian seasoning
- Salt & pepper to taste

**DIRECTIONS:**

1. Add the olive oil, onion, and celery to your Instant Pot. Press the sauté button and cook for 4 minutes.

2. Stir in the beef and garlic. Cook until the beef has browned, stirring occasionally (about 5 minutes). You shouldn't need to drain much fat if you're using extra lean ground beef, but feel free to drain some/most of it if desired.

3. Stir in the tomato paste, then add in the diced tomatoes, beef broth, potatoes, and Italian seasoning.

4. Close the lid, make sure the valve is on "sealing", press the "manual" button and cook on high pressure for 8 minutes.

5. Once the countdown has finished, carefully do a quick pressure release.

6. Season with salt & pepper as needed and serve immediately.

**OPTIONS:**

Substitute 1/4 cup Pearl Barley for potatoes for a more high fiber hardy soup. Increase cooking time to 20 minutes.

Replaced diced potatoes with 1/2 cup macaroni (elbow) and add 1/2 cup additional beef broth and reduce cooking time to 4 minutes

**NUTRITION:**

Carbs: 30g         Calories: 253
Fiber: 3g                        Sodium: 854mg

To help reduce sodium use low sodium beef broth in the recipe.
**GIMP Tutorial: Remove A Background**

by Meemaw

Sometimes you are working with a photo and think it would be better if the background was different, or just gone. I found a tutorial that outlined several ways to remove the background from an image. Let's look at a couple of methods.

**Fuzzy Select**

One of the methods you may already know is using the Fuzzy Select tool. It’s used best when the background is fairly different from the part you want to keep. I used the Fuzzy Select tool on this photo in order to put a different sky in.

This is a really pretty photo, but suppose you want to add a sky that indicates a later time? You can take out the present background fairly easily (without having to erase everything by hand).

Load your photo into GIMP, and in the layers dialog, right-click on the layer and check the box in front of

**Add Alpha** channel. If that menu item is greyed out, your photo already has one.

The Alpha channel allows transparency to be present in your image. If we’re taking out the background, it will have to be replaced with transparency.

Now choose your **Fuzzy Select** tool. (It looks like a magic wand.) In my photo, I clicked on the blue area first. You should check the **antialiasing** box and the **feather edges** box (and set the feathering to maybe 0 - 5), and then can change the **threshold** up and down until much of your blue is selected. In the image below, my threshold setting was 82, but every image is different (top, right).

Pressing the **Delete** key, I get the following (right):

Click on **Select > None** to clear your selection. Now go back and choose the orange cloud part, and delete it, too. If you have separate places that both need to be deleted (like the orange on either side of the people), hold down Shift and click your other area.

Notice in this photo that there is sky showing between the people’s legs that needs to be removed as well. I did this separately by zooming in to make sure I had everything.
It may be necessary to use your eraser as well, but by now, you won't have much to erase. I added a white layer so I could see what still needed to be removed. I'd rather erase that little bit rather than the whole background.

Then, I proceeded to add a different background. I added a layer and filled it with a gradient.

Choosing the paths tool, I can draw around the part I want. The paths tool allows me to curve those lines that need to be curved.

When you get around to the beginning again, and click in your first point, hit the Enter key to finish your path. Now, choose Select > Invert to change your selection to the background rather than the path you just drew. Then hit Delete. To get rid of the path, choose Select > None (top, right).

I then added a new layer and put a rather plain background in, but you could put anything in you want (right).

Next time we do GIMP, I'll describe a couple more ways to erase a background easily.

**Paths Tool**

Some things are a bit easier. I want to cut out all the audience watching this cutie do a backbend, but leave the cutie and the mat.
After Cookies, Ad Tech Wants To Use Your Email To Track You Everywhere

by Bennett Cyphers
Electronic Frontier Foundation
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Cookies are dying, and the tracking industry is scrambling to replace them. Google has proposed Federated Learning of Cohorts (FLoC), TURTLEDOVE, and other bird-themed tech that would have browsers do some of the behavioral profiling that third-party trackers do today. But a coalition of independent surveillance advertisers has a different plan. Instead of stuffing more tracking tech into the browser (which they don’t control), they’d like to use more stable identifiers, like email addresses, to identify and track users across their devices.

There are several proposals from ad tech providers to preserve “addressable media” (read: individualized surveillance advertising) after cookies die off. We’ll focus on just one: Unified Identifier 2.0, or UID2 for short, developed by independent ad tech company The Trade Desk. UID2 is a successor to The Trade Desk’s cookie-based “unified ID.” Much like FLoC, UID2 is not a drop-in replacement for cookies, but aims to replace some of their functionality. It won’t replicate all of the privacy problems of third-party cookies, but it will create new ones.

There are key differences between UID2 and Google’s proposals. FLoC will not allow third-party trackers to identify specific people on its own. There are still big problems with FLoC: it continues to enable auxiliary harms of targeted ads, like discrimination, and it bolsters other methods of tracking, like fingerprinting. But FLoC’s designers intend to move towards a world with less individualized third-party tracking. FLoC is a misguided effort with some laudable goals.

In contrast, UID2 is supposed to make it easier for trackers to identify people. It doubles down on the track-profile-target business model. If UID2 succeeds, faceless ad tech companies and data brokers will still track you around the web—and they’ll have an easier time tying your web browsing to your activity on other devices. UID2’s proponents want advertisers to have access to long-term behavioral profiles that capture nearly everything you do on any Internet-connected device, and they want to make it easier for trackers to share your data with each other. Despite its designers’ ill-taken claims around “privacy” and “transparency,” UID2 is a step backward for user privacy.

How Does UID2 Work?

In a nutshell, UID2 is a series of protocols for collecting, processing, and passing around users’ personally-identifying information (“PII”). Unlike cookies or FLoC, UID2 doesn’t aim to change how browsers work; rather, its designers want to standardize how advertisers share information. The UID2 authors have published a draft technical standard on Github. Information moves through the system like this:

1. A publisher (like a website or app) asks a user for their personally-identifying information (PII), like an email address or a phone number.
2. The publisher shares that PII with a UID2 “operator” (an ad tech firm).
3. The operator hashes the PII to generate a “Unified Identifier” (the UID2). This is the number that identifies the user in the system.
4. A centralized administrator (perhaps The Trade Desk itself) distributes encryption keys to the operator, who encrypts the UID2 to generate a “token.” The operator sends this encrypted token back to the publisher.
5. The publisher shares the token with advertisers.
6. Advertisers who receive the token can freely share it throughout the advertising supply chain.
After Cookies, Ad Tech Wants To Use Your Email To Track You Everywhere

7. Any ad tech firm who is a “compliant member” of the ecosystem can receive decryption keys from the administrator. These firms can decrypt the token into a raw identifier (a UID2).

8. The UID2 serves as the basis for a user profile, and allows trackers to link different pieces of data about a person together. Raw UID2s can be shared with data brokers and other actors within the system to facilitate the merging of user data.

The description of the system raises several questions. For example:

* Who will act as an “administrator” in the system? Will there be one or many, and how will this impact competition on the Internet?

* Who will act as an “operator?” Outside of operators, who will the “members” of the system be? What responsibilities towards user data will these actors have?

* Who will have access to raw UID2 identifiers? The draft specification implies that publishers will only see encrypted tokens, but most advertisers and data brokers will see raw, stable identifiers.

What we do know is that a new identifier, the UID2, will be generated from your email. This UID2 will be shared among advertisers and data brokers, and it will anchor their behavioral profiles about you. And your UID2 will be the same across all your devices.

How Does UID2 Compare With Cookies?

Cookies are associated with a single browser. This makes it easy for trackers to gather browsing history. But they still need to link cookie IDs to other information—often by working with a third-party data broker—in order to connect that browsing history to activity on phones, TVs, or in the real world.

UID2s will be connected to people, not devices. That means an advertiser who collects UID2 from a website can link it to the UID2s it collects through apps, connected TVs, and connected vehicles belonging to the same person. That’s where the “unified” part of UID2 comes in: it’s supposed to make cross-device tracking as easy as cross-site tracking used to be.

UID2 is not a drop-in replacement for cookies. One of the most dangerous features of cookies is that they allow trackers to stalk users “anonymously.” A tracker can set a cookie in your browser the first time you open a new window; it can then use that cookie to start profiling your behavior before it knows who you are. This “anonymous” profile can then be used to target ads on its own (“we don’t know who this person is, but we know how they behave”) or it can be stored and joined with personally-identifying information later on.

In contrast, the UID2 system will not be able to function without some kind of input from the user. In some ways, this is good: it means if you refuse to share your personal information on the Web, you can’t be profiled with UID2. But this will also create new incentives for sites, apps, and connected devices to ask users for their email addresses. The UID2 documents indicate that this is part of the plan:

Addressable advertising enables publishers and developers to provide the content and services consumers have come to enjoy, whether through mobile apps, streaming TV, or web experiences. … [UID2] empowers content creators to have the value exchange conversations with consumers while giving them more control and transparency over their data.

The standard authors take for granted that “addressable advertising” (and tracking and profiling) is necessary to keep publishers in business (it’s not). They also make it clear that under the UID2 framework, publishers are expected to demand PII in exchange for content.

<table>
<thead>
<tr>
<th>Supply-Side Workflow Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A user visits a publisher website, mobile app, or CTV app.</td>
</tr>
<tr>
<td>2. The publisher explains the value exchange of the open internet and requests the user log in.</td>
</tr>
</tbody>
</table>

How UID2 will work on websites, according to the documentation.

This creates bad new incentives for publishers. Some sites already require log-ins to view content. If UID2 takes off, expect many more ad-driven websites to ask for your email before letting you in. With UID2, advertisers are signaling that publishers will need to acquire, and share, users’ PII before they can serve the most lucrative ads.

Where Does Google Fit In?

In March, Google announced that it “will not build alternate identifiers to track individuals as they browse across the web, nor… use them in [its] products.” Google has clarified that it won’t join the UID2 coalition, and won’t support similar efforts to enable third-party web tracking. This is good news—it presumably means that advertisers won’t be able to target users with UID2 in Google’s ad
products, the most popular in the world. But UID2 could succeed despite Google’s opposition.

Unified ID 2.0 is designed to work without the browser’s help. It relies on users sharing personal information, like email addresses, with the sites they visit, and then uses that information as the basis for a cross-context identifier. Even if Chrome, Firefox, Safari, and other browsers want to rein in cross-site tracking, they will have a hard time preventing websites from asking for a user’s email address.

Google’s commitment to eschew third-party identifiers doesn’t mean said identifiers are going away. And it doesn’t justify creating new targeting tech like FLoC. Google may try to present these technologies as alternatives, and force us to choose: see, FLoC doesn’t look so bad when compared with Unified ID 2.0. But this is a false dichotomy. It’s more likely that, if Google chooses to deploy FLoC, it will complement—not replace—a new generation of identifiers like UID2.

UID2 focuses on identity, while FLoC and other “privacy sandbox” proposals from Google focus on revealing trends in your behavior. UID2 will help trackers capture detailed information about your activity on the apps and websites to which you reveal your identity. FLoC will summarize how you interact with the rest of the sites on the web. Deployed together, they could be a potent surveillance cocktail: specific, cross-context identifiers connected to comprehensive behavioral labels.

What Happens Next?

UID2 is not a revolutionary technology. It’s another step in the direction that the industry has been headed for some time. Using real-world identifiers has always been more convenient for trackers than using pseudonymous cookies. Ever since the introduction of the smartphone, advertisers have wanted to link your activity on the Web to what you do on your other devices. Over the years, a cottage industry has developed among data brokers, selling web-based tracking services that link cookie IDs to mobile ad identifiers and real-world info.

The UID2 proposal is the culmination of that trend. UID2 is more of a policy change than a technical one: the ad industry is moving away from the anonymous profiling that cookies enabled, and is planning to demand email addresses and other PII instead.

The demise of cookies is good. But if tracking tech based on real-world identity replaces them, it will be a step backward for users in important ways. First, it will make it harder for users in dangerous situations—for whom web activity could be held against them—to access content safely. Browsing the web anonymously may become more difficult or outright impossible. UID2 and its ilk will likely make it easier for law enforcement, intelligence agencies, militaries, and private actors to buy or demand sensitive data about real people.

Second, UID2 will incentivize ad-driven websites to erect “trackerwalls,” refusing entry to users who’d prefer not to share their personal information. Though its designers tout “consent” as a guiding principle, UID2 is more likely to force users to hand over sensitive data in exchange for content. For many, this will not be a choice at all. UID2 could normalize “pay-for-privacy,” widening the gap between those who are forced to give up their privacy for first-class access to the Internet, and those who can afford not to.
Victory For Fair Use: The Supreme Court Reverses The Federal Circuit In Oracle vs Google

by Michael Barclay
Electronic Frontier Foundation
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In a win for innovation, the U.S. Supreme Court has held that Google's use of certain Java Application Programming Interfaces (APIs) is a lawful fair use. In doing so, the Court reversed the previous rulings by the Federal Circuit and recognized that copyright only promotes innovation and creativity when it provides breathing room for those who are building on what has come before.

This decision gives more legal certainty to software developers' common practice of using, re-using, and re-implementing software interfaces written by others, a custom that underlies most of the internet and personal computing technologies we use every day.

To briefly summarize over ten years of litigation: Oracle claims a copyright on the Java APIs—essentially names and formats for calling computer functions—and claims that Google infringed that copyright by using (reimplementing) certain Java APIs in the Android OS. When it created Android, Google wrote its own set of basic functions similar to Java (its own implementing code). But in order to allow developers to write their own programs for Android, Google used certain specifications of the Java APIs (sometimes called the “declaring code”).

APIs provide a common language that lets programs talk to each other. They also let programmers operate with a familiar interface, even on a competitive platform. It would strike at the heart of innovation and collaboration to declare them copyrightable.

EFF filed numerous amicus briefs in this case explaining why the APIs should not be copyrightable and why, in any event, it is not infringement to use them in the way Google did. As we've explained before, the two Federal Circuit opinions are a disaster for innovation in computer software. Its first decision—that APIs are entitled to copyright protection—ran contrary to the views of most other courts and the long-held expectations of computer scientists. Indeed, excluding APIs from copyright protection was essential to the development of modern computers and the internet.

Then the second decision made things worse. The Federal Circuit's first opinion had at least held that a jury should decide whether Google’s use of the Java APIs was fair, and in fact a jury did just that. But Oracle appealed again, and in 2018 the same three Federal Circuit judges reversed the jury’s verdict and held that Google had not engaged in fair use as a matter of law.

Fortunately, the Supreme Court agreed to review the case. In a 6-2 decision, Justice Breyer explained why Google’s use of the Java APIs was a fair use as a matter of law. First, the Court discussed some basic principles of the fair use doctrine, writing that fair use "permits courts to avoid rigid application of the copyright statute when, on occasion, it would stifle the very creativity which that law is designed to foster."

Furthermore, the court stated:

Fair use “can play an important role in determining the lawful scope of a computer program copyright . . . It can help to distinguish among technologies. It can distinguish between expressive and functional features of computer code where those features are mixed. It can focus on the legitimate need to provide incentives to produce copyrighted material while examining the extent to which yet further protection creates unrelated or illegitimate harms in other markets or to the development of other products.”

In doing so, the decision underlined the real purpose of copyright: to incentivize innovation and creativity. When copyright does the opposite, fair use provides an important safety valve.

Justice Breyer then turned to the specific fair use statutory factors. Appropriately for a functional software copyright case, he first discussed the nature of the copyrighted work. The Java APIs are a “user interface” that allow users (here the developers of Android applications) to “manipulate and control” task-performing computer programs. The Court observed that the declaring code of the Java APIs differs from other kinds of copyrightable computer code—it's “inextricably bound together” with uncopyrightable features, such as a system of computer tasks and their organization and the use of specific programming commands (the Java “method calls”). As the Court noted:

Unlike many other programs, its value in significant part derives from the value that those who do not hold copyrights, namely, computer programmers, invest of
their own time and effort to learn the API's system. And unlike many other programs, its value lies in its efforts to encourage programmers to learn and to use that system so that they will use (and continue to use) Sun-related implementing programs that Google did not copy.

Thus, since the declaring code is “further than are most computer programs (such as the implementing code) from the core of copyright,” this factor favored fair use.

Justice Breyer then discussed the purpose and character of the use. Here, the opinion shed some important light on when a use is “transformative” in the context of functional aspects of computer software, creating something new rather than simply taking the place of the original. Although Google copied parts of the Java API “precisely,” Google did so to create products fulfilling new purposes and to offer programmers “a highly creative and innovative tool” for smartphone development. Such use “was consistent with that creative ‘progress’ that is the basic constitutional objective of copyright itself.”

The Court discussed “the numerous ways in which reimplementing an interface can further the development of computer programs,” such as allowing different programs to speak to each other and letting programmers continue to use their acquired skills. The jury also heard that reuse of APIs is common industry practice. Thus, the opinion concluded that the “purpose and character” of Google's copying was transformative, so the first factor favored fair use.

Next, the Court considered the third fair use factor, the amount and substantiality of the portion used. As a factual matter in this case, the 11,500 lines of declaring code that Google used were less than one percent of the total Java SE program. And even the declaring code that Google used was to permit programmers to utilize their knowledge and experience working with the Java APIs to write new programs for Android smartphones. Since the amount of copying was “tethered” to a valid and transformative purpose, the “substantiality” factor favored fair use.

Finally, several reasons led Justice Breyer to conclude that the fourth factor, market effects, favored Google. Independent of Android’s introduction in the marketplace, Sun didn’t have the ability to build a viable smartphone. And any sources of Sun’s lost revenue were a result of the investment by third parties (programmers) in learning and using Java. Thus, “given programmers’ investment in learning the Sun Java API, to allow enforcement of Oracle’s copyright here would risk harm to the public. Given the costs and difficulties of producing alternative APIs with similar appeal to programmers, allowing enforcement here would make of the Sun Java API’s declaring code a lock limiting the future creativity of new programs.” This “lock” would interfere with copyright's basic objectives.

The Court concluded that “where Google reimplemented a user interface, taking only what was needed to allow users to put their accrued talents to work in a new and transformative program, Google’s copying of the Sun Java API was a fair use of that material as a matter of law.”

The Supreme Court left for another day the issue of whether functional aspects of computer software are copyrightable in the first place. Nevertheless, we are pleased that the Court recognized the overall importance of fair use in software cases, and the public interest in allowing programmers, developers, and other users to continue to use their acquired knowledge and experience with software interfaces in subsequent platforms.
Use Your Phone Camera As A Webcam

by Ramchu

When the Covid Pandemic hit, there was a rush to purchase webcams. The prices skyrocketed and many people were unable to purchase one, either due to short supplies or being priced out of the market.

Now I may be a little late to the party, but I have found a way to have a webcam that won’t break the bank, and won’t play havoc on your nervous system trying to get it setup.

Enter “IP Webcam,” developed by Pavel Khlebovich.

IP Webcam is an Android app that is freely available in the Google Play Store.

The Prerequisites

1 - A computer and a smartphone that are connected to the same network.

2 - A wireless router.

3 - A web browser.

4 - The IP Webcam app

Open up the Google Play Store app and search for IP Webcam. Download and install it onto the smartphone.

Once the App is installed, open it and you will be presented with this screen on the phone.

![IP Webcam App](image)

Notice that at the bottom of the screen are some IP addresses. Make note of them. You will be using them in the next step.

Now on your computer, open a web browser (I used Firefox).

In the web browser, enter the IP Address (I used the http:// version) that was shown on your phone’s screen. It should look something like http://192.168.6.123:8080.

Now you will be presented with the IP Webcam control page in your browser.

![IP Webcam Control Page](image)

On the left is what you will initially see. As you scroll down the screen, the image on the right will become visible.

Scroll down and select Start server (leave all other settings as they are for now).

Almost immediately you will see on the screen a projection of what the phone’s camera is seeing (top, right).
In this page near the top you will see “Video renderer.” Select “browser” from the choices.

You will also see “Audio player” as a selection. Here, I selected “HTML5 Way,” and it did give me audio, but the latency was terrible.

There you have an economical and easy way to have a wireless webcam.

If you decide to continue to use this setup, you can adjust the settings to whatever works best for your situation, complete with password protection.

On a side note I was also able to get this working in VLC Media Player and SM Player. The IP address is a bit different in these players, as it will be (as an example) http://192.168.5.123:8080/video.

In VLC click on Media > Open Network Stream, and then the IP address.

In SM Player click Open > URL, and then the IP address.
Dump-and-Go Meatball Lasagna

**INGREDIENTS:**
- 8oz uncooked campanelle or rotini or bow-tie pasta (2 3/4 cups)
- 24 frozen cooked Italian-style meatballs (from 22-oz bag)
- 1 jar (25.5 oz) Organic tomato basil pasta sauce
- 2 cups water
- 1/2 teaspoon Italian seasoning
- 1 1/2 cups shredded mozzarella cheese (6 oz)
- Chopped fresh basil leaves, if desired

**DIRECTIONS:**


2. In a large bowl, mix pasta, frozen meatballs, pasta sauce, water and Italian seasoning. Pour mixture into dish. Cover tightly with foil. Bake for 40-50 minutes. Remove the dish from the oven; stir mixture thoroughly. Sprinkle it with cheese.

3. Bake uncovered 5 to 8 minutes longer or until pasta is tender and cheese is melted. Garnish with basil leaves before serving.

**TIPS:**
- Shredded Italian cheese blend may be substituted for shredded mozzarella cheese.
- Stir in 1/4 to 1/2 teaspoon crushed red pepper flakes to add a subtle spicy heat to this pasta.

**NUTRITION:**
- Calories: 500
- Carbs: 47
- Fiber: 5g
- Sodium: 840mg
**Sudoku Rules:** There is only one valid solution to each Sudoku puzzle. The only way the puzzle can be considered solved correctly is when all 81 boxes contain numbers and the other Sudoku rules have been followed.

When you start a game of Sudoku, some blocks will be prefilled for you. You cannot change these numbers in the course of the game.

Each column must contain all of the numbers 1 through 9 and no two numbers in the same column of a Sudoku puzzle can be the same. Each row must contain all of the numbers 1 through 9 and no two numbers in the same row of a Sudoku puzzle can be the same.

Each block must contain all of the numbers 1 through 9 and no two numbers in the same block of a Sudoku puzzle can be the same.

**Scrapper Rules:**
1. Follow the rules of Scrabble®. You can view them here. You have seven (7) letter tiles with which to make as long a word as you possibly can. Words are based on the English language. Non-English language words are NOT allowed.
2. Red letters are scored double points. Green letters are scored triple points.
3. Add up the score of all the letters that you used. Unused letters are not scored. For red or green letters, apply the multiplier when tallying up your score. Next, apply any additional scoring multipliers, such as double or triple word score.
4. An additional 50 points is added for using all seven (7) of your tiles in a set to make your word. You will not necessarily be able to use all seven (7) of the letters in your set to form a “legal” word.
5. In case you are having difficulty seeing the point value on the letter tiles, here is a list of how they are scored:
   - 0 points: 2 blank tiles
   - 1 point: E, A, I, O, N, R, T, L, S, U
   - 2 points: D, G
   - 3 points: B, C, M, P
   - 4 points: F, H, V, W, Y
   - 5 points: K
   - 8 points: J, X
   - 10 points: Q, Z
6. Optionally, a time limit of 60 minutes should apply to the game, averaging to 12 minutes per letter tile set.
7. Have fun! It’s only a game!
PCLinuxOS Word Find: April, 2021
Mother's Day

U K X U I K E C Y K E Y W Z T A X W G K R Z W P P S A O Y K
H F E E T R Q H J C I S Y G B Q M B P K M F M K X C Z C A S
F S Z R T D V M S E D A D V N B O R K B U O L K Z C V E D O
G M Z H X N M H O K H O B L X U F H O M Y J H A O N E I Q
B H W P O L O V E K K Z L R Q V T Q Y A U G Z R D D V Z L N
H S I K U N U S P R F X X U Y N H C B R T X D J E I M H O B
Q M Z G N T O C I I T G R A T I T U D E U A I O I I H T
T G N Z H B U S U P N T V A N X Y I F P Z F R Y D R T T Z I
H R P B T V Q W K E E T A P H X S L Q F P I G S Y A U K Y L
X K X Y F L X Q R E H O E G Y W P C D D N X I J I L J C F U
I D B G U R A N D M O T H E R B N K G D W R C I I G N M A
E N U R L A P X C U C M E N F O H E A R T E P H T A K K T
D F S V N H Y R C X D T I V R Z Y O V R S V H Q H K R T
W Y O L V C Q H W V E H K M T V C M N L P V X A G X V E X P
C H I L D R E N T D E U A R Y O W N P B K N S O F F J VA
G Z M Q C R Y P E A Y F C M A N B U A W E K O E H D E R A Q
S Q Y O I N Y R U Y I O M G R Y N T S N B D D Y I T G C
O C H O L A T E Q K A A I Y I N G C K B R K U D O V Y K
I H G N D N K N D R K R Q F L K Y G L Y B D C B Y N S F R O
T O W X A O E I T Q E F Q B F Q I Z N L F I X W V E A L F
A F S A U R R G S B A O K M U E J E U P H R P E S S X E C
N V L O G B G G M S F U Q A S C C P H C R R C W Q D B M W X
R C S E H A Q E T T C E L E B R A T I O N B V I W J U S E F
A S F O T V M I M C U I A J N P C T I J R L P S N F G Y J T
C H P K E E N X A F T M N K X R K V B O O D Z U R K I X U D
L N N I R B Z X L Y I X D U N N T T H O N Y S E U O H I O C
E R Q D U H H M Q W D B J E A E A Y T C F M U G V O M D U I

AFFECTION  APPRECIATION
BOUQUET     BREAKFAST IN BED
CARD        CARNATIONS
CELEBRATION CHERISH
CHILDREN    CHOCOLATE
DAUGHTER    DEDICATION
ENDEARING   FAMILY
FLOWERS     GRANDMOTHER
GRATITUDE   HEART
HERITAGE    HOLIDAY
HONOR       JEWELRY
KISS        LOVE
MATERNAL    MAY
MOTHERHOOD  PARENT
PERFUME     QUALITY
REMEMBER    ROSES
SON         SUNDAY
SWEETHEART  THANKS
THOUGHTFUL  TULIPS
UPBRINGING  WISDOM

Download Puzzle Solutions Here
1. Something that is passed down from preceding generations; a tradition.
2. Having or showing concern for the well-being of others.
3. Inspiring affection or warm sympathy.
4. The act of performing or observing with appropriate rites or ceremonies to honor a person or event.
5. A day free from work that one may spend at leisure.
6. Recognition of the quality, value, significance, or magnitude of people and things.
7. The willingness to give a lot of time and energy to something because it is important.
8. A tender feeling toward another; fondness.
9. An inherent or distinguishing characteristic; a property.
10. The qualities of a mother.
11. The rearing and training received during childhood.
12. To love, protect, and care for someone or something that is important to you

Download Puzzle Solutions Here
Mixed-Up-Meme Scrambler

FLASH

Mummify
AEBMML

Flare
ORTCH

Grave
RPCTY

Feverish
CITYPRE

Know a friend with a sad computer?
Send a
__ __ __ __ __ __ __ Card.

Use the clues to unmix the letters to make a new word. Remix the letters in the red boxes to solve the puzzle.

Download Puzzle Solutions Here
More Screenshot Showcase

- Posted by seaplanetux, on March 31, 2021, running KDE.
- Posted by tschommer, on March 31, 2021, running KDE.
- Posted by tuxlink, on April 1, 2021, running KDE.
- Posted by yankee, on April 1, 2021, running Mate.