Our Club

RCSI is a nonprofit 501(c)(3) group open for membership to anyone interested in computers and related technology. Our aim is to provide an exchange of information between users of digital devices. We are not in any way affiliated with any computer manufacturer or software company.

Program Meetings

No admission fee for non-members. Everyone is welcome! Second Tuesday of every month, except August, from 6:30pm – 9:00pm.

Help's Half Hour (Q & A) 6:30pm – 7:00pm. Members and Guests are welcome to attend and bring their computer related questions with them to get answered.

7:00 – 7:15, Club Business

7:15 – 8:30+, Main Presentation

Come and join in the fun and enjoy a snack! You are welcome to bring a friend.

Become a Member

Go to our website, www.rcsi.org, and download a printed form for use by the Post Office mail, **or** enter your info online and pay with a credit card or PayPal, **or** attend a meeting.

Monitor

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The Rochester Computer Society, Inc.
a computer/tech club open to everyone

M NIT R

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Tuesday, April 9, 'Technical Innovations of the Near Future - - - Here Today (update)' presentation by Arpad Kovacs

Tuesday, May 14, 'WordPress Introduction for Creating Websites', presented remotely or in person by Mark Zinzow

In This Issue

Windows vs Linux: what's the best operating system?

(Part 1)

Written by Clare Hopping, Bobby Hellard, IT Pro

Can the open source upstart really stand up to Microsoft's enterprise juggernaut?

For decades, a secret war has been raging, fought in back offices and IT departments across the globe. Teams have been torn asunder, driven apart by an ideological clash that seems as old as time itself: which is better, Windows or Linux?
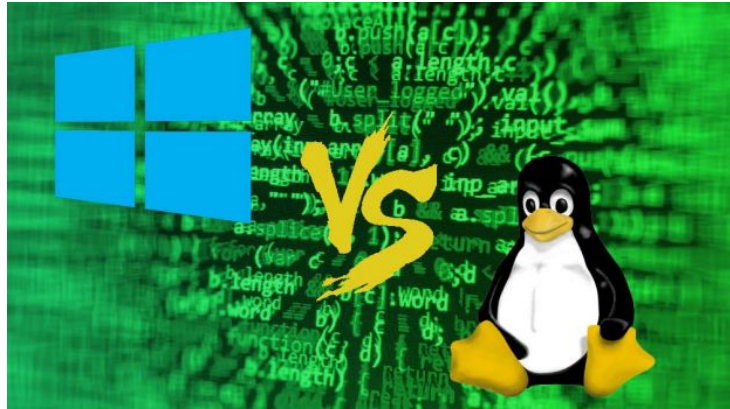
Both sides are often staunchly committed to their preferred platform, taking any opportunity to hold its counterpart's failings over those perceived heretics that have the gall to suggest that their operating system of choice is anything less than flawless.

Of course, as with any ideological conflict, the reality is far less black and white. Both Linux and Windows have advantages and drawbacks, and both excel in areas where the other falls down somewhat.

For example, although Linux is (by and large) more secure than Windows, anyone who's spent time troubleshooting a Linux issue will agree it's hard to argue that Windows has the edge in terms of user-friendliness.

At the end of the day, Linux and Windows are both merely tools: tools that IT professionals use to get their jobs done. With that in mind, it's important to set aside the tribalism and the dyed-in-the-wool dedication to one particular type of software in order to objectively look at which one is best suited to your specific individual needs.

Below we dive deep into the history of both, and weigh up the pros and cons to help you decide. Ultimately, what's most important is whether the operating system is right for your needs, so, by the end, you should have a better understanding of the capabilities of both.

Windows vs Linux: History
The first version of Windows, known as Windows 1.0, was revealed in 1985 following the formation of Microsoft. It was based upon the MS-DOS core, at the time the most widely used Program Manager for running applications.

Following that initial launch, new versions of Windows were quickly rolled out, including the first major update in 1987, quickly followed by Windows 3.0 in the same year.

This journey of evolution happened quickly, and in 1995, perhaps the most widely used version yet, Windows 95 was born. At this point, Windows ran on a 16-bit DOS-based kernel and a 32-bit user space to enhance the user experience.

Windows hasn't changed a whole lot in terms of core architecture since Windows 95, and although vast amounts of features have been added on to address modern computing, many of the elements we recognise today were present. For example, the Start Menu, the task

Special **I**nterest **G**roup

Linux Sig

The workshop is the **third Saturday of each month**, at Interlock Rochester, 1115 East Main St. www.interlockroc.org Enter through door #7 on the end of building, near *Comics Etc* and Goodman St. Find 'Interlock' on the intercom directory to get buzzed in and go upstairs to suite #200. We have experts on hand to fix problems and answer questions about Linux and FOSS (free and open source software). Bring your system in so we can help you get the most out of it. Hope to see you there.

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bar and Windows Explorer (now known as File Explorer) all presented themselves in Windows 98.

One major shift happened with the launch of Windows ME in 2000. That was the last MS-DOS version of Windows, allowing for an even faster evolution of services since. However, some iterations of the platform still fared better than others and although it is still the most popular computing platform, users have dropped off over the years and migrated to other platforms, such as MacOS and Linux.

Linux was launched later than Windows, in 1991. It was created by Finnish student Linus Torvalds, who wanted to create a free operating system kernel that anyone could use. Although it's still regarded as a very bare bones operating system, without a graphical interface like Windows, it has nevertheless grown considerably, with just a few lines of source code in its original release to where it stands today, containing more than 23.3 million lines of source code. Linux was first distributed under GNU General Public License in 1992.

Windows vs Linux: Distros

Before we begin, we need to address one of the more confusing aspects to the Linux platform. While Windows has maintained a fairly standard version structure, with updates and versions split into tiers, Linux is far more complex. Originally designed by Finnish student Linus Torvalds, the Linux Kernel today underpins all Linux operating systems. However, as it remains open source, the system can be tweaked and modified by anyone for their own purposes.

What we have as a result are hundreds of bespoke Linux-based operating systems known as distributions, or 'distros'. This makes it incredibly difficult to choose between them, far more complicated than simply picking Windows 7, Windows 8 or Windows 10.

Given the nature of open source software, these distros can vary wildly in functionality and sophistication, and many are constantly evolving. The choice can seem overwhelming, particularly as the differences between them aren't always immediately obvious.

On the other hand, this also brings its own benefits. The variety of different Linux distros is so great that you're all but guaranteed to be able to find one to suit your particular tastes. Do you prefer a MacOS-style user interface? You're in luck - Elementary OS is a Linux distro built to mirror the look and feel of an Apple interface. Similarly, those that yearn for the days of Windows XP can bring it back with Q4OS, which harkens back to Microsoft's fan-favourite.

There are also more specialised Linux flavours, such as distros that are designed to give ancient, low-powered computers a new lease of life, or super-secure distros that can be booted from a USB drive to keep you safe when using an unfamiliar PC. Naturally, there are also numerous Linux versions for running servers and other enterprise-grade applications.

For those new to Linux, we'd recommend Ubuntu as a good starting point. It's very user-friendly (even compared to Windows) whilst still being versatile and feature-rich enough to satisfy experienced techies. It's the closest thing Linux has to a 'default' distro – although we would urge everyone to explore the various distro options available and find their favourite.

Windows vs Linux: Installation

Still with us? Good; now we move on to looking at installation. Again, this differs a little from Windows methods, as well as varying between distros.

A common feature of Linux OS' is the ability to 'live' boot them – that is, booting from a DVD or USB image without having to actually install the OS on your machine. This can be a great way to quickly test out if you like a distro without having to commit to it.

The distro can then be installed from within the live-booted OS, or simply run live for as long as you need. However, while more polished distros such as Ubuntu are a doddle to set up, some of the less user-friendly examples require a great deal more technical know-how to get up and running.

Windows installations, by contrast, while more lengthy and time consuming, are a lot simpler, requiring a minimum of user input compared to many distros.

Windows vs Linux: Software and compatibility

Most applications are tailored to be written for Windows. You will find some Linux-compatible versions, but only for very popular software. The truth, though, is that most Windows programs aren't available for Linux.

A lot of people who have a Linux system instead install a free, open source alternative. There are applications for almost every program you can think of. If this isn't the case, then programs such as WINE or a VM can run Windows software in Linux instead.

Despite this, these alternatives are more likely to be amateur efforts compared to Windows. If your business requires a certain application then it's necessary to check if Linux runs a native version or if an acceptable replacement exists.

There are also differences in how Linux software installs programs compared with Windows. In Windows, you download and run an executable file (.exe). In Linux, programs are mostly installed from a software repository tied to a specific distro.

Installing on Linux is done by typing an apt-get command from the command line. A package manager handles this by layering a graphical user interface over the messy mechanics of typing in the right combination of words and commands. This is in many ways the precursor of a mobile device's app store.

Depending on the software, some won't be held in a repository and will have to be downloaded and installed from source, such as the non-open source variants of proprietary software like Skype or Steam.

In this case, the installation becomes more similar to that of Windows software.

You simply download the relevant package for your distro from the company's website, and the inbuilt package installer will complete the rest.

Windows has a big advantage over Linux, which is that in the software stakes, virtually every program is designed from the ground up with Windows support in mind. In general, Windows users aren't affected by compatibility worries. As mentioned previously, the set-up is also often a much simpler affair.

Editor's note: I did not request permission to reprint this article from www.itpro.co.uk.

End of part 1 # #

What Will Computers Look Like in 30 Years?

By Jack Hanson

64 is the New 16

This picture is the front panel from my very first computer, a 1982, Data General Nova 1200. It was the cat's pajamas because it allowed me to enter two characters (16 bits) at a time, instead of eight bits (a byte). I was pleased as punchcards to enter my ten-letter name in under a minute in binary code. Today, I talk into my 64 bit smart phone, and as quick as my kids, it talks back.

My point, (before I forget it), is that I went from toggle switches to voice recognition in just 30 years. From DOS to Windows. From the first Mac to the latest iPhone. From Pong to Angry Birds. What advancements will I, (yes, I mean me), see in the next 30 years? What changes in computers will you see in *your* lifetime? It's truly mind boggling.

Moore's Law

Before posting an article about the future of computers, any blogger worth their weight in silicon will research Moore's Law, the law named after Intel co-founder Gordon E. Moore.

Moore's Law, (more of an observation turned prediction that has more or less held up), is described in this Intel infographic:

Since transistors are the work horses of a computer, doubling the transistors generally means doubling the computer processing power. And it's

Moore's Law

The number of transistors on a chip roughly doubles every two years, as their cost goes down

"In 1965, Gordon Moore sketched out his prediction of the pace of silicon technology. Decades later, Moore's Law remains true, driven largely by Intel's unparalleled silicon expertise." - Intel press page.

not just CPUs that are improving at an exponential rate. Every couple of years, storage devices like memory and hard drives are bigger and faster, displays are better, and cameras capture better images.

Moore's law describes a driving force of technological and social change, productivity, and economic growth - wikipedia
Image credit: Wikimedia Commons

More$ Law

From Boyle to Newton, the best laws are self-explanatory, come with a catchy phrase and a cool drawing. There is probably some research that goes along with it, but I imagine that can be exhausting. Based on my personal (computer) experiences, I propose a new technology predicting law.

More$ Law
Every two years I buy a new computer and it costs about the same.

| 1982 | 2012 | 2042 |
| Commodore 64 | 64bit Laptop | 64neuron Implant |

30 years / 15 computers → 30 years / 15 computers →

Price: $599   Price: $599   Price: $599

FutureForAll.org

Computers of Tomorrow

Today's computers operate using semiconductors, metals and electricity. Future computers might use atoms, dna or light. Moore's Law predicts doubling, but when computers go from quartz to quantum, the factor will be off the scale.

What would the world be like, if computers the size of molecules become a reality? These are the types of computers that could be everywhere, but never seen. Nano sized bio-computers that could target specific areas inside your body. Giant networks of computers, in your clothing, your house, your car. Entrenched in almost every aspect of our lives and yet you may never give them a single thought.

What will computers look like in 30 years? Trick question. You won't see them at all.

Ubiquitous computers are in the works.

Grasping the Technologies

Understanding the theories behind these future computer technologies is not for the meek. My research into quantum computers was made all the more difficult after I learned that in light of her constant interference, it is theoretically possible my mother-in-law could be in two places at once.

If you have the heart, take a gander at the most promising new computer technologies. If not, dare to imagine the ways that billions of tiny, powerful computers will change our society.

Editor's Note: From the author. I search the Internet daily for new articles from around the world that interest me or I think will interest you. I avoid listing sites with too many ads or are mainly focused on politics or religion. My hope is that it saves you time or helps students with their assignments.

Printed (I didn't ask for permission) from the www.futureforall.org website.

Special Interest Group, Linux Sig

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www.interlockroc.org

Tidbits of probably useless information

Gadsby is a 1939 novel by Ernest Vincent Wright, written as a lipogram, which does not include words that contain the letter "E".

The smallest fruit, *Wolffia globosa*, better known as Asian watermeal, is an impressive plant, even if it would look like a tiny speck in the palm of your hand. It's the world's smallest flowering plant, less than one-third of an inch wide at its largest.

So far, the largest known fruit was a pumpkin, grown by a human, rather than naturally in the wild. Produced in 2014, it weighed more than a tonne, topping the scales at a mouth-watering 1056kg (2328 pounds).

The lightest mammal is the shrew, which mostly resembles a mole. Being known for its weight, its average recorded weight lies between 1.2 and 2.7 grams.

The heaviest mammal is the blue whale. At 100 feet long and 200 tons (African elephant about 7 tons), it is the biggest mammal in the world, but it's also the largest vertebrate animal that has ever lived. Not even the largest dinosaurs approached it in bulk. Some titanosaurs were over 100 feet long, but they didn't weigh 200 tons. Fittingly, the blue whale is also the loudest animal on earth. This cetacean can vocalize at 180 decibels, enough to render most other animals deaf.

Of all the words in the English language, the word *set* has the most definitions.

* ** * * SOFTWARE and HARDWARE * * * * *

Ask Leo !
By Leo Notenboom, https://askleo.com/
Technology With Confidence
Making Technology Work For Everyone

Is There a Real Alternative to Windows?

Only Windows is Windows. There are alternatives, but whether they're right for you, depends on you.

//
Is there a real, complete and reliable equivalent to Windows? Other than that Apple stuff.

//

That's a question I received not long ago. Particularly given the publicity around some of the issues with Windows 10 and its updates, I think many frustrated users are wondering if there isn't something else they could or should be using.

The answer is my most common: it depends.

Summary
- There are three major alternatives to Windows: Mac OS X, Linux, and Chrome.
- Whether or not any of them would work for you depends *entirely* on how you use your computer.
- Less common alternatives include the mobile devices you may already be using.
- Any alternative demands time and effort spent learning how to use it.

Windows alternatives

Windows 10 There is no exact replacement for Microsoft Windows. Whether any alternative will work for you depends on that alternative's characteristics as compared to your needs.

The most commonly considered alternatives include Apple's OS X on Macs, Linux, and the Google Chrome operating system. They each have significant pitfalls, depending on what you expect.

OS X runs (legally) only on Apple hardware, so switching means getting a new computer. It also means learning the nuances of OS X's interface (just as you learned the nuances of Windows). It also means replacing all the software you use, as OS X does not run Windows applications. You'll need to get versions of the same software available on the Mac, like Microsoft Office, for example, or alternative applications that serve the same need, such as LibreOffice or Open Office.

Linux is free and runs on almost any PC, even an old one collecting dust in a closet. There are a confusing number of distributions to choose from, with Ubuntu and Mint being the most popular for Windows expats. Like OS X, Linux does not run Windows applications, so you'll be looking for alternatives. Unfortunately, true Linux versions of Windows applications are very rare. You'll need to find alternative applications that serve the same needs to your satisfaction.

Google Chrome OS is available only on "Chromebooks" — laptops specifically designed to run the Chrome OS — so you'll be getting a new machine to go this route. Once again, Chrome OS does not run Windows software, so you'll be looking for alternatives. The good news here is that many Chromebooks can also run Android applications, where there often are official versions of Windows applications. These versions are often stripped-down equivalents to those you might find on Windows, but again, depending on your needs, they may be enough.

Depending on…

That phrase "depending on your needs" keeps coming up. That's simply because different people have different needs and expectations, and all of the alternatives have different pros and cons when compared to those needs.

If you need the power of a real, popular, operating system with a corporation standing behind it to update and support it, and with numerous familiar applications that can do just about anything, a Mac might be the only real alternative for you.

If you just need to put something else on your existing hardware, and are willing to take the time to look for and learn about alternatives for the applications you're used to running on Windows, then Linux could be a choice. Note that online help for Linux runs that gamut from nonexistent to somewhat helpful to downright belligerent at times, so be sure to pack a fair amount of patience. Unfortunately, there's a reason Linux is still considered an OS for geeks (albeit a good one).

If all you do is browse the web and send email, with a few other light tasks occasionally, it's very possible a Chromebook might be right up your alley. There's a strong argument for it being more secure than the alternatives above. Just don't expect to do any heavy tasks like photo or video editing.

And in all cases, *be prepared to learn*. In fact, be prepared to spend a lot of time learning, and in turn learning a lot. Each of these operating systems is similar-to-yet-different-from Windows. They each have the same concepts — files, menus, apps, browsers, and so on — but the specifics of how you interact with each is often different. It will take some time to get used to a different way of doing things.

Mobile

Interestingly, particularly among the younger crowd, there's a move to rely solely on mobile devices like your phone, Android or iPhone, or tablet, such as an iPad. I know several folks who've switched to devices like these almost exclusively.

Once again, it all depends on how you use your technology and what you want to accomplish with it. Mobile devices are great for many things, but not everything. Depending on your mix of activities, you may find you can go completely mobile only, use a mobile 90% of the time with that old Windows computer in the basement for times when a phone just won't do, or realize that yes, you really do need a "real" computer to meet your needs.

The devil you know
Finally, I have to add that every alternative could give you a case of exchanging one set of problems for another. I know many people who are Apple- or Google-averse for privacy and control reasons. My experience with Linux is that it's rare a day goes by without some kind of update to install.

None of the alternatives are frustration-free.

Depending on your reasons for looking, be sure to examine the alternatives you're considering to make sure you don't end up with something that frustrates you even more than what you're trying to escape.

Additional Notes:
There is a project called Hackintosh, but as its name implies, it's more than a tad geeky, and certainly not supported by Apple. You'll hear references to something called "WINE" to run Windows applications on certain Linux platforms. Again, geeky, and in my experience, the resulting performance of the applications that work, leaves much to be desired. Indeed, if I didn't do what I do for a living, there's a real possibility I'd be running Debian Linux on my primary machine. If you're anywhere near being a computer geek or hobbyist, it's worth playing with.

<center># # # End of Article # # #</center>

How to wipe all partitions on a Flash Drive

<div align="right">by Mark Lawson, member of RCSI</div>

You can view the video at: https://www.youtube.com/watch?v=hDI8YHhCwhQ, which uses Windows.

1. Go to the search area and type in: Computer Management.
2. Click Disk Management.
3. Find your device and remember the label and check to see if it has any partitions.
4. Go to the search area and type: Command Prompt and open as Administrator. You should see a Linux like Terminal come up.
5. Type in: *diskpart* and enter (Disk Partitioning).
6. Type: *list disk* and press enter.
7. Type: *select disk* (and whatever the number is for your flash drive) and enter.
8. Type: *clean* and press enter.
9. Wait until you see: Succeeded in cleaning the disk.
10. You should now have a complete unallocated space on the flash drive.
11. Right click on the unallocated space.
12. Select: New Simple Volume.
13. Hit next. It will assign a new letter to the flash drive.
14. Most settings can be left as Default. Choose the file type, usually FAT32.
15. Go through the steps to where you see a label for it. You can rename it if you want.
16. Hit next and ok.
17. Hit finish and you're done.

You should now see a flash drive with a complete formatted space on it to use.

Kretchmar's Korner

Don't Buy Identity Theft Insurance

By David Kretchmar, Computer Hardware Technician
Sun City Summerlin Computer Club NV

Equifax

It was almost a year ago when Equifax announced that a data breach exposed the sensitive personal information of 143 million Americans. As a part of its mitigation, Equifax offered consumers a year of free credit monitoring. This offer ended in January 2018, but not to worry, for just $12.95 a month you can pay Equifax to monitor your credit reports.

This is a breathtaking bit of corporate chutzpah; first Equifax fails to secure many millions of individual's data files (including probably yours) and now that they have proven to be untrustworthy they want to charge a monthly fee to assure you your data has not been compromised. I would just say NO!

LifeLock

LifeLock is the most heavily advertised consumer data protection service that is offered by Symantec, a cyber security company that also provides the Norton Security Suite.

LifeLock premiered in 2005; you might remember the commercials at that time featuring LifeLock CEO Todd Davis revealing his Social Security number to the public. LifeLock failed to disclose that Davis' identity was stolen at least 13 times during the advertising campaign. LifeLock brushed off critics, claiming that LifeLock prevented Davis' identification from being stolen many other times, thereby proving the value of LifeLock.

LifeLock attempts to frighten consumers by saying: "Considering everything you do online, data breaches and companies that sell your information, it's easier than ever for criminals to steal your identity. They can open accounts, buy properties, and even file tax returns in your name. There's a new victim every two seconds, so don't wait to get protection!"

But, of course, LifeLock has the answer: Note that LifeLock does not offer a family plan; LifeLock coverage for a married couple is well over $50 a month. LifeLock does offer a 11% discount when a couple enrolls.

So, What Do You Get for Your Money?
Sadly, very little, except for a false sense of security. If you are the victim of identity theft, most institutions will absorb the cost and charge you nothing. The few consumers who do suffer monetary damages rarely lose more than $200.

Go to LifeLock's website and you will notice that "Not all transactions at all accounts monitored" is written everywhere - on the website, as the signature to their emails, at the bottom of their site next to any disclaimer asterisk - basically giving them an out, in case anything ever happens to one of your accounts.

A close reading of all of LifeLock's service and reimbursement "guarantees" discloses so many exceptions and conditions that they are essentially worthless.

LifeLock's Legal Woes

The Federal Trade Commission in 2015 asserted that LifeLock violated a 2010 settlement by continuing to make deceptive claims about its identity theft protection services, and by failing to take steps required to protect its users' data. In late 2016 LifeLock paid consumer damages of over $100,000,000.00.

In documents filed with the U.S. District Court for the District of Arizona, the FTC charged that LifeLock failed to live up to its obligations under the 2010 settlement and asked the court to impose an order requiring LifeLock to provide full redress to all consumers affected by the company's order violations.

The 2010 settlement stemmed from previous FTC allegations that LifeLock used false claims to promote its identity theft protection services. The settlement barred the company and its principals from making any further deceptive claims. It required LifeLock to effectively safeguard personal data it collected from customers and required LifeLock to pay $12 million in consumer refunds.

How Can I Protect Myself?

The Equifax and LifeLock primary service is nothing you can't do much better yourself. If you think someone has stolen your identity, you can contact each of the four major credit bureaus, TransUnion, Experian, Equifax, and the newer Innovis, and place an electronic security freeze on your credit. The freeze is good until you lift it and should prevent any new accounts from being opened. A security freeze prohibits, with certain specific exceptions, the consumer reporting agency from releasing the consumer's credit report or any information from it without the express authorization of the consumer. You can temporally lift the freeze if you want to open new accounts.

There is no charge for a security freeze if you are a victim of identity theft. To get a free security freeze you should first file a police report or (much more easily) create an Identity Theft Report at: www.identitytheft.gov/Assistant#what-to-do-right-away. This FTC site is easy to navigate and has some good information on what to do after an identity theft.

Conclusions and Recommendations

Don't buy identity theft insurance from Equifax, LifeLock, or any of the other outfits selling this "protection". The best way to protect yourself against loss is to keep an eye on your own bank, credit card and brokerage accounts and statements. Download your annual free credit reports yourself, safeguard your passwords, and skip the fees.

From the July 2018 issue, The Gigabyte Gazette, www.scscc.club, tomburt89134@cox.net.
Editor's note: LifeLock may have changed their methods and pricing, since this article was written.

* * * * BITS and PIECES in the NEWS * * * *

Editor's Note: To continue reading the following articles, you may copy the long URL at the end of the article and enter it into a web browser **or** go to www.rcsi.org/newsletr.htm and click on the URL.

Scientists Give Mice Infrared Night Vision With Nanoparticles

By Ryan Whitman

Like us, mice can't see in the infrared. Well, most mice can't. There are a few rodents in a laboratory that can see infrared light after being enhanced with special nanoparticles. The team thinks a similar procedure could work on humans, giving you night vision without any bulky goggles. You just need to be willing to get nanoparticles injected into your eye.

Mice see approximately the same small slice of the electromagnetic spectrum as visible light that we do — about 380 to 740 nanometers. By injecting the nanoparticles into mice, the team led by Tian Xue from the University of Science and Technology of China and Gang Han from the University of Massachusetts Medical School added the near-infrared (800 to 1,000nm) to the mouse's visible spectrum. Experiments confirmed the animals could see infrared light for about ten weeks after the injection, and there were no ill effects.
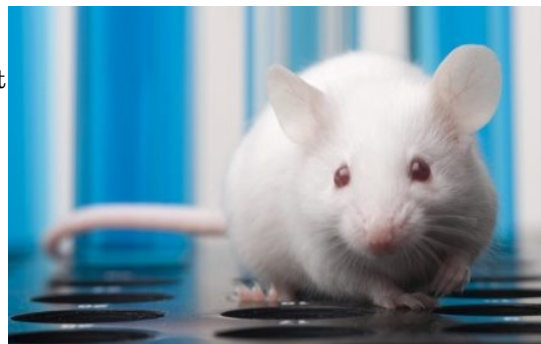
The key to giving these mice visual superpowers was designing a nanoparticle that could operate with the animal's existing biology. The particles don't replace any functionality in the eye; they simply translate near-infrared (NIR) wavelengths into something the eye can understand: light between roughly 380 and 740nm.

* * * article may be continued at www.extremetech.com/extreme/286728-scientists-give-mice-infrared-night-vision-with-nanoparticles * * *

Engineers translate brain signals directly into speech

The Zuckerman Institute at Columbia University, January 29, 2019

Advance marks critical step toward brain-computer interfaces that hold immense promise for those with limited or no ability to speak.

Summary:
In a scientific first, neuroengineers have created a system that translates thought into intelligible, recognizable speech. This breakthrough, which harnesses the power of speech synthesizers and artificial intelligence, could lead to new ways for computers to communicate directly with the brain.

In a scientific first, Columbia neuroengineers have created a system that translates thought into intelligible, recognizable speech. By monitoring someone's brain activity, the technology can reconstruct the words a person hears with unprecedented clarity. This breakthrough, which harnesses the power of speech synthesizers and artificial intelligence, could lead to new ways for computers to communicate directly with the brain. It also lays the groundwork for helping people who cannot speak, such as those living with amyotrophic lateral sclerosis (ALS) or recovering from stroke, regain their ability to communicate with the outside world.

* * * continue reading at www.sciencedaily.com/releases/2019/01/190129081919.htm * * *

* * * * * REGIONAL and CLUB NEWS * * * * *

First Robotics

www.firstinspires.org

One Sunday night in July 1969, one billion people huddled around their radios and TV screens in awe, as we walked on the moon for the first time. In that moment, the world was united in celebration of human ingenuity and inspired by the possibility that by working together, we can quite literally reach the stars.

*FIRST (**F**or **I**nspiration and **R**ecognition of **S**cience and **T**echnology) was founded in 1989 to inspire young people's interest and participation in science and technology. Based in Manchester, NH, the 501(c)(3) not-for-profit public charity designs accessible, innovative programs that motivate young people to pursue education and career opportunities in science, technology, engineering, and math, while building self-confidence, knowledge, and life skills.

FIRST is **More Than Robots.** *FIRST* participation is proven to encourage students to pursue education and careers in STEM-related fields, inspire them to become leaders and innovators, and enhance their 21st century work-life skills. There are four divisions: Lego League Jr. (grades K-4), Lego League (4-8), Tech Challenge (7-12), Robotics Competition (9-12). Starting with motorized Lego robots and later being challenged to design, build, and program a robot to play a floor game against other teams' creations.

FIRST Finger Lakes Robotics Competition at **RIT, Thursday, March 14 – Saturday, March 16, 2019**. Of the 50 teams registered, the majority are from New York with several others from New Jersey, Pennsylvania and Ohio. Also registered are five international teams from Canada, Brazil, Mexico and China. We have five or more area high schools competing. www.rit.edu/gcr/firstrobotics/

# # #

E³ Engineering and Technology Fair, Engineering -- Exploration – Experimentation

The E³ Fair began in 1991 and was organized by, and is funded by, engineering societies of the Rochester area and local industries. Its purpose is to increase interest in engineering and technology in middle school students (Grades 6 – 8), who not only learn team and process concepts as a result of their projects, but also learn about careers in engineering from professional engineers at the Fair. The E³ Fair Committee is all volunteer - comprised of engineers representing various Rochester engineering societies and community members who want to support this worthwhile event.

Monday, March 25, 2019, 9 am to 1 pm, Clark Gymnasium at RIT

More info at www.e3fair.org.

# # #

Imagine RIT Creativity and Innovation Festival

Imagine RIT: Creativity and Innovation Festival, is a campus-wide event that showcases the creative and innovative spirit of RIT students, faculty, and staff. Visitors experience the breadth and depth of RIT through interactive presentations, hands-on demonstrations, exhibitions, and research projects set up throughout campus. Multiple performance stages with live music and entertainment are also a hit with visitors of all ages. Held annually each spring, Imagine RIT is the kickoff to Rochester's rich festival season.

Date & Time: **Saturday, April 27, 2019**, from 10am to 5pm, rain or shine. **Free and open to the public**!

https://www.rit.edu/imagine/

Editor's note: Once again, RIT has done it. This festival was voted as the #1 family attraction. It is impossible to experience everything in one day, so you will need to attend again next year.

# # #

Help's Half Hour   Notes by Jan Rothfuss

Q: Using Windows Media Player, can you convert a wav file to an MP3?
A: Google the request and it should show programs – many will be free. Try VLC Media Player. You can try FreeMake, https://www.freemake.com.

The presentation of 'Home Automation, Introduction' by Bill James, gave everyone a good start into some of the fun you can have with the new devices available in the market. His presentation slides can be viewed on the Pcloud website and later at RCSI. https://my.pcloud.com/publink/show?code=XZoPGq7ZsVXPNCCd81L3pWN8dceGj52zbdxy

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Computer Recycling

Some Residential Drop off Locations: **Call first**, to find out what is accepted, especially for 'tube type' tvs or monitors.

Monroe County *ecopark* (Cathode Ray Tube TVs and monitors - $10 each credit/debit card only) 10 Avion Drive Rochester, NY 14624 Phone: (585) 753-7600 (Option #3)

Maven Technologies offers *free* residential drop off, 9:00 am – 4:00 pm (M-F), 1450 Lyell Avenue, Rochester, NY. The processing center is located on the NW corner of Lyell and Mt Read, behind the 'strip mall'. Go to the customer entrance.   458-2460.

Pod Computers accepts most electronic waste (no tv's or crt's), located at 1925 South Ave, the wedge where South Ave and East Henrietta Rd meet. 244-2240.

Best Buy stores accept most electronic waste (CRT and some other TVs include a fee of $25 each)

The Rochester Computer Society, Inc.
a computer/tech club open to everyone

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Tuesday, April 9, 'Technical Innovations of the Near Future - - - Here Today (update)' presentation by Arpad Kovacs

Tuesday, May 14, 'WordPress Introduction for Creating Websites', presented remotely or in person by Mark Zinzow

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Our Meeting Place

St John's Meadows at Johnsarbor Drive, is on the left, past Clinton Avenue, when going West on Elmwood Ave. The opening in the white fence is Johnsarbor Drive. At the 'T', turn right. The meeting is in the first building on the left – **Briarwood.**

6:30   Help's Half Hour
7:00   Business
7:15   Main Presentation
Our meetings end between 8:30 and 9:00 pm.

Our meeting place can change. Please check our website before each meeting. **www.rcsi.org**

See your address label for your membership EXPIRATION DATE!

CHANGE SERVICE REQUESTED

Monitor
Rochester Computer Society, Inc.
2 Bambi Lane
Rochester, NY 14624