

The

PULP

Newsletter of the Hartford User Group Exchange

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Volume 38 Issue 03

MARCH 17th General Meeting:

Online (In)Security

**Rev. Fleming Hall
2533 Main Street,
Glastonbury, CT**

Q&A Session: 7 PM–7:15PM
Meeting starts at: 7:15PM



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MEETING LOCATIONS

**Rev. Fleming Hall
2533 Main Street,
Glastonbury, CT**

From The Editor

by Stuart Rabinowitz

I was thinking about a bit of recent news that the online threats against Macs were increasing faster than PCs. I know we briefly discussed it during the meeting, but I thought it might be worthy of its own future meeting. And then I started putting together this article. So, March will be a discussion of online (in)security.

In the news: A recent report states that Macs face nearly twice as many online threats as Windows PCs. DOD DISA discloses data breach. Iranian hackers have been hacking VPN servers to plant backdoors in companies around the world. A bug in WordPress plugin can let hackers wipe up to 200,000 sites. FBI is investigating more than 1,000 cases of Chinese theft of US technology. And in a big surprise Android applications claiming to clean and speed up smartphones actually install malware. Among those reported include; Weather Forecast, Candy Selfie Camera & Sound Recorder.

There is a crafty malware app (Metamorfo) that makes you retype your passwords so it can steal them. It is mostly aimed at non-US banking and credit cards. Researchers have noted that there might still be a backdoor mechanism active in many IoT products

The Ashley Madison breach victims have more to worry about - the 2015 breach is being used in sextortion scams. Hackers are hijacking smart building access systems to launch DDoS attacks. Five years after the Equation Group HDD hacks, firmware security still sucks. FBI has launched an investigation into Pegasus spyware vendor over US citizen hacks.

Report/ Avast and AVG collect and sell your personal info via their free antivirus programs

One in three NHS computers is still running outdated Windows 7 software

The 25 worst passwords of 2019 have not changed from the prior year. Ring beefs up its security with mandatory 2FA, suspends third-party trackers in mobile app. Several tech giants' have issued a new appeal to the government, 'Please Regulate Us'. Apple has joined an industry effort to eliminate passwords.

MIT researchers (probably not the same ones) have been busy: They've disclosed vulnerabilities in Voatz mobile voting election app, disclosed massive security flaws with blockchain voting apps, and created smart surface to improve wireless signal strength.

A Japanese firm announced potential 80TB hard drives. Elon Musk's SpaceX launches 60 new satellites for US service

66% of Americans admit to sleeping with their phone at night -

Amazon gets restraining order to block Microsoft work on Pentagon JEDI.

Send your comments to editor@huge.org
Until next month...Happy computing!!

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A Little Computer Quiz

Feb. Quiz Answers

- 1 In March, 1959, someone proposed a new computer language. Who was it?
- 2 What was the computer language?
- 3 When was the first meeting to develop the language?
- 4 Who led the development leader?
- 5 When were the first specifications released?

1 As has been the case in the past, many of the products introduced at CES this year were robots. Can you name the first general-purpose robot?

A It was called 'Shakey' because of its jerky movement.

2 Who were the chief developers?

A Nils Nilsson and Charles Rosen

3 When did work on it began?

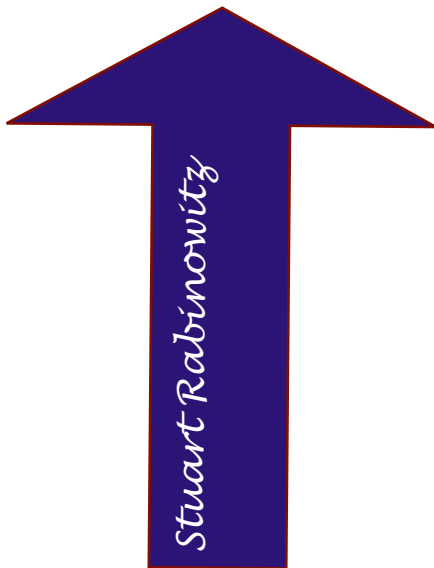
A In 1966 through 1972. It is currently on display at the Computer History Museum

4 What programming language was used to program it?

A LISP

5 Where was it developed and who funded it?

A It was developed at Stanford Research Institute with funds from DARPA.



Making Your Tech “Fit”

Tech and Your Eyes

Author: Debra Carlson, Technical Advisor, CVC
Computer Club, CO

Q1 issue 2019, Tech-Notes

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Words like “ergometrics” and “accessibility” fly around when talking about tech devices but what does that mean practically – to the user?

First, a definition:

Ergometrics is an applied science concerned with designing and arranging things people use so that the people and things interact most efficiently and safely — called also biotechnology, human engineering, human factors
merriam-webster.com/dictionary/ergonomics

This quarter we’ll talk about how tech interacts with EYES.

COMFORT can be an important guide for dealing with eyes and tech.

1. Ambient lighting should complement light from the screen.
Lamps pointed directly at the screen cause reflection making it harder to see what is printed. If you are typing from notes, however, it is important to have that document well-lit to prevent eye fatigue. Avoid setting a monitor where it will get direct sunlight for the same reason.
2. Most monitors (*hardware*) and operating systems (*software that controls how interactions occur within various computing components like hardware or programs used to browse the internet or create documents*) have light level controls in addition to color and size settings. Tempering the background color and complexity of any graphic that “shows through” your viewing windows will lessen the need for more lumens (*the amount of light*). Sometimes changing to dark background

and yellow or white print is less taxing to the eyes ... making it easier to see.

3. The position and angle of the monitor are important! You might be surprised how much raising the monitor, or tipping it slightly, will improve screen visibility.

4. Some find “computer glasses” help arbitrate the distance to a monitor if using a desktop or laptop regularly ... and some find glare is cut (*particularly with cataracts*) by using “yellow lens” sunglasses (*slipovers or clip-ons*).

Safety is assisted by comfort, but it is a **DISCIPLINE**. Eyes, balance, circulation, joint health, and physical health in general benefit from:

1. Adjusting the monitor so you can see it easily. Perhaps getting a riser for it (*if you are taller*) so you will sit straight in the chair.
2. Look away from the screen often. When you look away from the screen, shake out your hands.
3. Plan to stand and walk regularly – some suggest every 10 minutes ... most at least every half hour.

Don’t be afraid to experiment with screen resolution or font size. Just remember the following:

1. Before a change, take note of what it is you are having trouble seeing. Every solution makes “changes.” But making the **most efficient change** for your problem will be the most helpful. It also makes it easier to “undo” if your needs evolve.
2. Make one change at a time and see if (or how well) it works for you. This may seem pedantic, but it will assist you in knowing what part of the system, changed, helps you most.

3. Don't forget – color change can be as or more effective than size change in some circumstances.

4. Many programs have “options” or “preferences” that can be set to make viewing easier. Where these do not exist, third-party “extensions” can provide additional modifications not included by the developer.

Don't forget about using ZOOM to make individual pages larger or smaller when needed, rather than changing the entire machine unnecessarily.



Hopefully, you got an idea or two in this. In coming issues, we will talk about:

- Does size matter?
- Things in your hands
- Cords, Voice, Sound, and other hazards

Making Your Tech “Fit” Does Size Matter?

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Q2 2019 issue, Tech-Notes
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Last quarter we talked about tech and eyes. This quarter we will talk about something that can be related ... **Does size matter?**

A few principles:

Keyboards -- “full size” addresses the width of keys but not the angle of the keyboard, height of the keys, pressure that is required to depress keys, or the optional keys and support for their programming.

“Ergonomic keyboards” that force you to hold your elbows away from your body are “healthier”, in large part, because they force you to take breaks from typing. Keyboards with many curves do the same – and breaks are important.

Mouse -- If a mouse is too small it will stress your hand and wrist. It will also make it harder to relax while using the wheel for scrolling.

If you need to save money on one of these devices, save on the keyboard and spend on a mouse that fits.

Now for the more complicated size question – **the monitor.**

First, monitor size is both the physical size of the screen and the size of the items on the desktop (the screen with its icons, etc. is called the desktop).

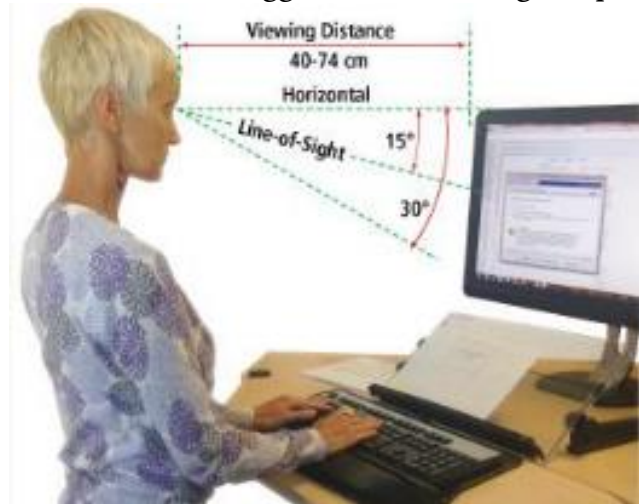
Many writers say, “get as big a monitor as you can afford.” While this may work for the newer high-end televisions, it is possible to overload the optical sensors at the distance we use for computer monitors.

Monitor size is measured diagonally.

Approximate sizes on your desk are shown below.

Screen Diagonal	Screen Width	Screen Height
22"	19.2"	10.8"
26"	22.7"	12.7"
32"	27.9"	15.7"
37"	32.2"	18.1"
40"	34.9"	19.6"

OSHA (US Occupational Safety and Health Administration) suggests the following setup.



Optometrists suggest the monitor distance is 16 to 30 inches.

It is important to note that people who use bifocals / trifocals / progressive lenses will often need to look through the bottom of lenses if they do not use computer glasses so raising the monitor and setting it a bit farther back will help with neck strain.

It is important to place the monitor in a location that eliminates glare on the screen. This optimally means perpendicular to a window, but this may not always be possible.

Options include modifying the natural (shades / curtains), or artificial light (sometimes this



means turning on a light) when using the computer.

Standard resolutions (icon and font sizes) for current monitors are (many more are possible):

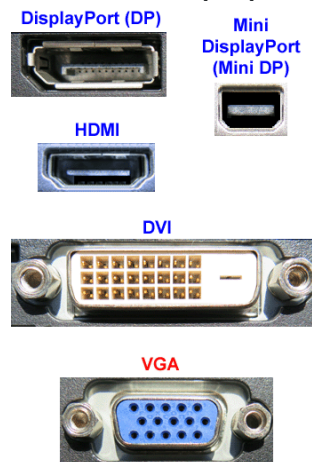
1280x720
1366x768
1600x900
1920x1080

Generally, adjusting icon size more than 125% is not recommended unless you are using a discrete graphics card as it will cause slow response time and hanging / ghosting of images. Plan to mix changing resolution and setting icon size for best results.

It is usually possible to get a good 24" monitor for \$150 and a good 27" for between \$200 and \$250. Be sure you have a desk with space that allows you to move a monitor away from the chair before investing in a 32" monitor because of optical overload potential ... and invest in a 4K monitor if you are going that large to help avoid the pixilation that can happen on a large monitor.

If you are using a laptop, of course, sizes are different but resolution information is the same. Most laptops will allow attaching an external monitor for ease of use when sitting at a desk ...

check to see what kind of connection you can make. Most laptops will use VGA or HDMI.



For all users – when replacing your monitor, futureproof your purchase by including DisplayPort or HDMI on the monitor or TV you purchase for your viewing pleasure.

Next month we will look at **Things in your hands** (mouse, stylus, pen mouse, finger, clicking, swiping, touching, and other stuff), followed by **Cords, Voice, Sound, and other hazards.**

Making Your Tech “Fit” Things in Your Hands

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Q3 2019 issue, Tech-Notes
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Last quarter we talked about monitors. Now we will talk about Things in your hands.

Do you have hand, shoulder or neck pain while and after using your computer? Spend hours on-line without moving? Taking breaks is helpful, of course. Having good habits can help avoid some potentially debilitating conditions:

- Carpal tunnel syndrome happens when pressure on the inner wrist makes the median nerve swell causing numbness, tingling, pain, and weakness.
- “Mouse shoulder” (pain in shoulder, upper arm and forearm) can happen when time is spent slouching while moving the hand. It leads to muscle strain of the shoulder girdle or the spine itself.
- A mouse that fits the hand poorly can also cause thumb tendinitis.

Computer peripheral manufacturers mention three mouse grip styles: palm grip, claw grip, and tip grip.

1. The palm style mimics holding the mouse like a doorknob. Most of the palm / finger surfaces are in contact with the mouse and most of the hand's weight lies on it. Mice built for palm grip are big, wide, have a “hump” on the back, and an area to rest the middle or ring finger.

2. The claw grip arches the hand -- only the fingertips and a small part of the palm contact the mouse. It takes less hand weight to “flick the mouse” making it easy to change the cursor's aim. The hump on the mouse back is smaller,

and the mouse is smaller than one built for palm grip.

3. Tip grip is “all” fingertip. No part of the palm touches the mouse. It's faster and more agile than claw grip, but also more tiring. Making small adjustments on the screen such as photo edits, can be tough because the mouse moves so quickly. These are small, like “travel” mice. If not from overuse, pain often comes from using a mouse that, because of mis-sizing, requires an awkward grip or too much pressure to click.

So, what can be done to minimize problems –

1. Figure out your grip type and buy the right mouse for it. If you can, go to a store and “try” some mice. If that isn't practical, pay careful attention to the size on the description -- and its relationship to your hand size. Don't wait until you hurt to start using a mouse correctly or to find a mouse that fits your grip style.
2. When you're using a computer, keep the mouse a little above elbow height with your wrists relatively straight.
3. Take frequent breaks to avoid repetitive stress injuries. Also ... Trackball, vertical mice, trackpads, and even some mice shaped like larger pens are made. Consider how you use your mouse and, if you have pain, consider one of these options as well. There will be a learning curve ... and, yes, these do cost more. It could well be worth the savings on pain relievers.



Another alternative is the touch pad. There is a learning curve associated with this, but some find it more comfortable. Capacitive touch and



other peculiarities of smartphones / tablets that make finger temperature or humidity a factor do not impact desktop or laptop touchpads. Worth a mention if you are looking for a new mouse – cordless is nice, but it is possible to

have increased latency (time lag) between mouse movement and the time the cursor moves on the screen.

- Spending a bit more when buying a Bluetooth mouse can increase quality / decrease latency.
- Making sure your mouse battery is not depleted also helps performance. “Wired” mice take power from the host machine, so this is only a consideration with wireless mice. Most mice are now optical, meaning they use light rather than a ball for movement. They do not require a mouse pad (the old “ball” mice often did to ensure consistent surface) but can react differently when placed on more reflective surfaces. If your cursor seems to be “jumpy”, try putting a clean sheet of paper under it to mute some of the reflection.

Mouse choice, as with all input devices (keyboards, microphones, etc.) is very personalized. Don’t believe it when someone says, “anything works”. It’s your comfort that counts.



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 Distribution George Carbonell

Membership: Anyone may become a member. Dues are \$12 per year and includes a one-year subscription to The Pulp. Meeting topics, times and places can be found on page 1 of this issue.

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		March		2020		
1	2	3	4 1976 1st Cray 1 ships	5 1981 Sinclair ZXZ81 introduced	6	7
8 1922 Ralph Baer born	9	10	11 1952 Douglas Adams born	12 1989 WWW introduced	13	14 Pi Day
15 1975 Homebrew Computer Club founded	16	17 General Meeting 7 PM	18	19	20	21
22	23	24	25	26 1976 1st MITS convention	27	28
29	30	31				