The Gigabyte Gazette

The Monthly Newsletter

of the

Sun City Summerlin

Computer Club

https://www.scscc.club

August, 2021

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President's Message

Computer Club Offerings

by Jeff Wilkinson

July brought our Association Club Fair at Desert Vista Community Center. It was an opportunity for our club to present our offerings to new residents. With the Covid-19 shutdown there hadn't been a club fair in over a year, so with over 60 clubs represented it was a busy two nights. We had many inquiries each evening and the two- and half-hour sessions went quickly. We received signup envelopes from sixteen new and returning members with probably twice that planning to join online or at a club meeting. One new member even signed up and paid his dues on the Chromebook that was on display.

So, what did we, the club, learn? There are many Apple users, from iPhones, iPads and iMacs with every level of expertise. The bulk of the inquiries were on how to use specific applications or transfer photos and post messages and send emails with attachments.

We also had inquiries from Windows users, a surprising number who were hanging on to Windows 7 out of reluctance to learn a new operating system. Novice users who confessed to knowing nothing, to experts who had been in IT for over 40 years, stopped by to chat. Of course, an attempt to recruit seasoned users to share their knowledge as instructors was made!

What became clear, as I explained our monthly schedule, was that we needed to beef up our club offerings. Even though it is mid-summer, and we are just opening again after the pandemic closure, our events schedule is thin. Many wanted information on when we would have "live in-classroom" presentations again. A high number were also reluctant to use or didn't know how to use Zoom.

It appears we have our work cut out for us; as a club we need to meet the needs of our members and offer value to new members. Basic classes are still needed. I recently spent an hour with a retired professional who had lived nearly a century. He was given a smart phone by one of his children, but no instructions. Time spent showing him the basics opened a new world for him to explore and revived his enthusiasm for technology! While not an isolated case, there are many more examples where simple instruction provides tremendous value to our club members.

So now the pitch … we need instructors to teach just about anything technology-related to our diverse club membership. With the plethora of videos available from other clubs we can have more live classroom presentations as well as hybrid Zoom and classroom sessions. But, there is no substitute for live in person instruction and interaction with students.

Please give it some thought and reach out with questions and comments.

Jeff Wilkinson, President
(702) 527-4056 ***pres.scscc@gmail.com***

General Membership Meeting

There will be no General Meeting in August. Our next General Meeting will be held at **2 PM on Thursday, September 2nd**.

For Club information: go to www.scscc.club, contact Jeff Wilkinson, President at (702) 527-4056 or email him at pres.scscc@gmail.com.

August 2021 Printable Calendars

To view this month's classroom and lab calendars, click the following hyperlink:

http://www.scscc.club/Calendars/scscc_calendar_2021-08Aug.pdf

SCSCC Board of Directors Actions

The Computer Club Board of Directors took the following actions on July 7, 2021

Howard Verne made a motion that the **minutes of the June 9, 2021 Board Meeting be approved as submitted.** The motion was seconded by Chuck Wolff and unanimously approved by the Board.

George Lobue made a **motion** that the meeting adjourn. Chuck Hagen **seconded** the motion, and it was unanimously **approved** by the Board. The meeting was adjourned at 9:55 AM.

Submissions Welcome

We are always looking for new information to share with our club members. If you have computer or technical information you would like to share with members of the club, send your articles to editor **Tom Burt** at tomburt89134@cox.net. Thank you to everyone for your contributions.

Welcome New Members

The following new members have joined the Computer Club from June 28th to July 28th.

Elliot Alterman
Donald Bennett
Eddie Bromberg
Mark Curley
Elizabeth Devilbiss
Anite DuRocher
Bob Fain
Nancy Fain
Dan Galitz
Catherine Govaller
Virginia Healey
Victoria Herman-Socol
Becki Hernandez
Suchart Janeratanachuen
Dennis Jew
Sandra Kaplan-Ribons
Dean Knight
Kitty Koeplin
Rina Maimon
Ron Maimon
Marty Martensen
Jack Masseling
Jean Mizzi
Hilda Moeller
Richard Moeller
Shirley Palmer
Mary Roberts
Sunhee Selliken
June Shelp-Jew
James Smiley
Lorna Smiley
Sharon Smith
Carmen Sorvillo
Tim Tomchuck
Larry Williams

As of July 28th, the club has 558 paid memberships for 2021.

As of December 31st, the club had 614 paid memberships for 2020.

Special Interest Groups and Kaffee Klatches

Special Interest Groups (SIGs) provide a forum for general discussion on a specific computer related subject. Admission to all SIGs is on a first-come, first-seated basis and is subject to the maximum allowed by fire code regulations. <W>, <L>, <M> or <H> indicate whether a SIG would be of interest to a Windows, Linux, MacOS or Hand-held Device user.

Apple SIG / Q&A <M/H> *Live in the Classroom* Gail Weiss (702-355-6220)

Usual time: 3rd Monday, 10 a.m.

Next meeting 9 – 11 am on Saturday, August 28 (*special time*)

Bring your Apple iPhone, iPad, Watch or MacBook to get one on one help with your questions about how to use any Apple device and popular iOS or MacOS apps.

Repair SIG <W/L/M > Chuck Wolff (702-233-6634) and Chuck Hagen (702-418-2614)

Live in the Classroom. ***Reservation Required***

Every Tuesday, 12:30 p.m. to 3:30 p.m.

The Repair Lab provides **CLUB MEMBERS ONLY** with no-cost assistance for those having upgrades and / or hardware and software problems with their computers. Bring in only your PC tower, your Mac or your laptop and your problems. Our TECH team will give you our best effort. ***Be sure to mark your cables so you can re-connect when you get home***.

Internet Investing <W/M/H> *via Zoom* Tom Burt (702-341-7095)

3rd Thursday, 9:00 a.m. in even months

Next meeting: August 19th

The Internet Investing SIG provides a forum for members interested in using Internet resources for researching and managing investments to meet, discuss, and learn more about the topic. The SIG's target audience is members with intermediate computer skills and investment experience, but all members are welcome.

Networking SIG <W/M/H> via Zoom Robert Ambrose (rna@muttsoft.com)

2nd Thursday of odd months at 9 a.m.

DARK indefinitely.

This SIG is a discussion forum on computer network technology including modems, routers, firewalls, protocols and ISPs.

Kaffee Klatch <W/M/H> via Zoom

Every Tuesday, 8:30 a.m.

Jeff Wilkinson (702-527-4056)

This Kaffee Klatch is an open, free-form discussion group for all users, from beginning to advanced. KK discussions are not restricted to any one subject, computer platform or computer-knowledge level but should be computer or technology related. We will try to answer your questions, help you keep your systems updated and provide some useful "tips and tricks."

Windows 10 SIG *Live in the Classroom*

First and Third Saturdays at 9:30 a.m. *Suspended (DARK) in August due to COVID restrictions.*

Bill Wilkinson (702-233-4977)

If you are a novice or near-beginner computer user, or if you just want some refresher information together with a refreshing cup of coffee, then jump-start or recharge your computing knowledge by attending these Win 10 SIG / Q&A sessions. At each session, attendees will explore several topics of interest to beginners and near-beginners. The topics are always announced a couple of days in advance via e-mail to SCSCC members who have subscribed to the club's SCSCCNews mailing list. Each topic is presented in a step-by-step manner and is supported by "how to" notes that can be easily and conveniently downloaded from the SCSCCBKK.org web page. Following each "up front" presentation of one or more topics (approximately 60 minutes in duration), an informal open-ended Question and Answer period takes place for those who wish to participate, listen, reflect, or inquire.

Seminar Offerings

The club's Seminars, SIGs, Q&As and Kaffee Klatches are being conducted either as Zoom webcasts, live in-person or a hybrid of the two. Check the weekly calendar on the website to see which mode the session is using. Unless explicitly stated, advance registration is not required for Seminar sessions.

Ransomware & Phishing Attacks

Wednesday, August 18th 9:00 AM – 10:30 AM
Presenter: Jeff Wilkinson
Location: Zoom Webcast

Jeff will discuss the latest in Ransomware and Phishing Attacks and how to protect yourself.

Exploring Your Amazon Fire TV Device and Amazon Prime Video

Thursday, August 26th 9:30 AM – 11:00 AM *via Zoom*
Presenter: Tom Burt
Location: Zoom Webcast

We've done various sessions on "cutting the cord" that talk about abandoning your cable or satellite TV provider and streaming video content via the Internet. However, the actual mechanics of getting that set up and working well can be challenging, especially for our Sun City Seniors. Also, aside from the native "smart" TV systems, there are many device offerings such as Roku, Apple TV and Amazon's Fire TV. Each has its own unique interface and configuration settings, making it difficult to do a generalized presentation.

Rather than try to cover the entire universe, this session will focus specifically on how to set up and use the Amazon Fire TV device. We'll look at how to download and install various apps that connect your Fire TV to free (with ads) and paid streaming services, including Amazon's Prime Video service.

While we'll be focusing on the Fire TV device, much of the material will apply to other devices and smart TVs.

All members are welcome. The presentation notes will be available about August 20th at: http://www.scscc.club/smnr.

Tom's Tech-Notes

High Speed Internet Services – What's New?

Tom Burt, SCSCC Vice-President

It's been a while since I've written about high speed Internet service in "Las Vegas.

More and more households are abandoning their cable and satellite TV providers in favor of streaming TV services such as Netflix, Hulu, Apple TV, YouTube TV and others. Other "smart home" devices, such as the Amazon Echo also frequently access the Internet. For all these Internet "services" to be responsive, you need a fast, reliable internet connection.

This month we'll survey what's available in Las Vegas, including hyperlinks for those who want to dig deeper. The material below is as of July, 2021.

Cox High Speed Internet

https://www.cox.com/local/residential/nv/las-vegas/internet

Cox offers various high speed Internet access plans:

Plan Name	Speed (down)	Pricing (first year)
Starter 25	25 Mbps	$30 / mo
Essential 50	50 Mbps	$40 / mo
Preferred 150	150 Mbps	$60 / mo
Ultimate	500 Mbps	$80 / mo
Gigablast	940 Mbps	$100 / mo

You can get Internet-only service without TV service. However, you will get better prices if you bundle with Cox TV or Cox Phone.

Plans above Essential 50 feature "Powerboost", which increases download speed when doing large downloads. My typical download speed is about 180 Mbits / second.

Preferred 150, & Ultimate plans require a DOCSIS 3 modem. Gigablast requires a DOCSIS 3.1 modem.

I've used Cox since 2000 and have had very few issues. I have the Preferred 150 plan bundled with Cox phone. it just works. This is the service most Las Vegans use. Watch out for price jumps after the first year. Also, if signing up on the web, watch out for Panoramic WiFi being added to the bill ($10/mo). If you already have a router, you don't need it.

Cable Modems – DOCSIS 3.0 and 3.1

The cable Internet services (Cox in Las Vegas) offer various performance tiers from 25 megabits downstream all the way to 940 megabits downstream. However, for speeds above 30 megabits, you need a cable modem that supports the DOCSIS 3.0 cable internet standard and for the 940 megabits service, you need a modem that supports the DOCSIS 3.1 standard.

https://en.wikipedia.org/wiki/DOCSIS

https://www.coxvalue.com/High-Speed-Internet_west_south

While you can rent a cable modem from Cox, it is generally less expensive to buy one. The payback period is about 1 year. Popular DOCSIS 3.0 or 3.1 cable modem choices are described in: https://www.tomsguide.com/us/best-modems,review-2832.html. For speeds up to 300 megabits downstream, you will want a modem with 16 downstream x 4 upstream channels. Above 300 megabits you will want a modem with 32 downstream x 8 upstream channels and probably should choose one that's DOCSIS 3.1 compatible.

CenturyLink DSL

http://www.centurylink.com

CenturyLink offers various speed options for Internet access.

Speed (down)	Pricing (for life)
10 Mbps	$50 / mo
20 Mbps	$50 / mo
40 Mbps (rare in Sun City)	$50 / mo
100 Mbps (N/A in Sun City)	$50 / mo
940 Mbps (N/A in Sun City)	$65 / mo

You can lease a DSL modem / wireless router combo or buy your own & save $15 / mo.

You get price breaks for bundling with their phone service and/or TV service.

Watch out for activation and installation fees.

I checked availability at my home address and was told I could get an underwhelming 6 Mbps for $50 / mo. Not very competitive with Cox.

T-Mobile Home Internet

https://www.t-mobile.com/isp

T-Mobile is now offering its Home Internet service in Las Vegas. I checked and it is available at my home address. The latest price on their website is $50 / month with an autopay contract. You may get a discount if you also have a cell plan with T-Mobile or Sprint. That price does not increase after the first year. It includes the Internet service, plus a WiFi 6 gateway (modem + router), so you don't need to purchase or lease any other equipment. Just plug it in, set it up with a smartphone app, and you're up and running.

Speeds (down) vary but are in the range of 30 Mbps to 110 Mbps, depending on distance to a 4G or 4G antenna and how other much traffic is active. Their current offer also includes a $10 discount on YouTube TV (85 channels). Their plan has no annual contract and no additional service fees.

I have no experience with this service. It uses T-Mobile's 5G or 4GLTE cellular data network. It's competitive with the lower speed plans of Cox and CenturyLink.

Verizon 5G Home Internet (Not available yet in Sun City)

https://www.verizon.com/5g/home/

I checked and Verizon's 5G Home Internet service is not yet available in Sun City at my address. That's a shame because it offers "up to 1 Gigabit per second (down) for a price of $50 per month if you also have a Verizon cell plan costing $30 / month or more ($70 / month if not). They are also offering several incentives to sign up, including a free Chrome Book and a free Verizon Stream TV device. They'll also cover up to $500 of termination fees for your current service.

The monthly price also includes a WiFi gateway (router / modem), and the setup is an easy, do it yourself procedure.

When available (that could be quite a while), this looks very competitive with the service from Cox.

Internet Service Options - Upcoming

The other option coming soon is satellite Internet service from SpaceX's **Starlink** network of low earth orbit (LEO) satellites.

https://www.starlink.com
https://www.satelliteinternet.com/providers/starlink

SpaceX is launching hundreds (eventually thousands) of small communication satellites into low earth orbits (about 300 miles up). These will operate in a mesh network so that an antenna on your home's roof will always be in view of one or more of the satellites. **Starlink** claims speeds of up to 1 gigabit / second downstream. Pricing is $99/month plus $500 for the satellite

antenna/transceiver. Starlink began beta testing in the fourth quarter of 2020 and is launching about 60 new satellites each month.

At some test sites in Arizona, they've experienced antenna failures due to overheating, so their system may not be quite ready for use in hot desert climates like ours.

Final Thought

Having very fast Internet service (i.e. more than 100 megabits downstream) won't result in much real-world benefit if your internal home network is running at speeds slower than 100 megabits per second. If your modem's or router's Ethernet ports are running at 100 megabits or less, or your WiFi network is running at 100 megabits or less (maybe a lot less), that's as fast as that part of your network will run.

Check out all of your home networking equipment and consider upgrading it to 1 gigabit Ethernet and 802.11AC (Wifi 5) or 802.11AX (WiFi i6). That will assure you realize the full benefit of your high speed Internet connection.

Until next month …

Kretchmar's Korner

I Was a Fool So You Don't Have to Be

David Kretchmar, Hardware Technician

I don't necessarily think of myself as a fool, but a few years ago I did a foolish thing. I bit on one of Motley Fools' ubiquitous teaser internet ads promoting the best new emerging technology stocks that were about to "explode". I paid (I think) $29 to Motley Fool to get the names of the stocks. Motley Fool sent me the names of several mostly small and pink sheet stocks. Most pink sheet companies are highly speculative, have little or no earnings, and are low-priced penny stocks. For many pink sheet stocks, a price appreciation up to one penny would be wildly profitable, but well over 90% of these stocks disappear worthless.

The Motley Fool
MAKING THE WORLD SMARTER, HAPPIER, AND RICHER

I have to wonder if they are buying shares before they recommend them and running the shares up and then maybe even shorting them or just taking advantage of people willing to pay for their information. Their expertise seems to be selling themselves, not researching companies.

The Motley Fool's website is self-described as "A wide-ranging investment resource that intended to "educate, enrich, and amuse individual investors around the world". The site includes discussion boards, quotes, data, and of course stock-picking advice. Many of the articles are voluntarily contributed by various individuals. I suspect, not unlike the Motley Fools, many have taken a position in the stocks they are now pumping, with hopes of profitable dumping.

Upsells

If you are not satisfied with the advice provided pursuant to your original subscription, the Motley Fools will offer you "better" subscriptions, such as:

Everlasting: Cloud Disruptors 2020	Or:	One
Invest in The Motley Fool's "No. 1 Technology of the 2020s"		Full access to all Motley Fool stock services and exclusive access to Tom Gardner's Everlasting Portfolio
$1,999/year		$13,999/year

A Foolish Website

I am not new to the stock market; I focused on security analysis in college and have been doing my own research for over 50 years. Almost everything I have seen from the Motley Fools is absolute garbage. I highly recommend not using their website for any information except maybe for the entertainment value of how foolish it is. Often there are contradicting opinions on the same stock on the same day!

There is way too much advertising on the Motley Fools subscription website. This site is without transparency and therefore of questionable value for investors. if you want to be successful, and actually be one of the rare investors who make money relying on the advice of others, you need to receive information from people whose own investing/trading results you can clearly see. There are several dozen articles every day and I believe no one could construct a good trading strategy based on the hundreds of stocks they say are "ready to explode".

The Motley Fool's subscription website is a mess of marketing. Most of the articles provide virtually no actionable information, except pitches for more expensive Motley Fool newsletters. Occasionally there is a well written article that contains decent information, but this is rare.

To be fair I do agree with their philosophy that a buy and hold strategy, not trading, is the path to real wealth accumulation. They deride ALL short-term trading dogmatically but make tons of picks, some work, others totally fail. Also, they advise not to bother trying to time the market just spend time in the market holding your winners and trimming losers. There – in this paragraph I've reflected virtually all of the sound advice you are likely to glean from the Motley Fool website – and it was FREE!

Can they do 5X better than the market?

It is inconceivable that The Motley Fool could beat the S&P 500 by over 500%, as they claim in their current advertising. Most professional money managers and advisors have difficulty equaling the performance of the market averages. Those who are considered investment geniuses, such as Peter Lynch and Warren Buffett were able to beat the market by a few percentage points a year. Anyone able to beat the market averages by 500% would be able to amass great wealth investing and would not have to sell a tout service.

Even the free offers are less than worthless

Almost every day I see Motley Fool teaser articles on sites such as Yahoo Finance and often the headline is misleading, and the article provides just a superficial discussion of a stock. Usually, the article ends stating the stock discussed is OK (or bad) but the Motley Fools knows 10 stocks that are better, which they will provide to you if you just furnish your email address. I have done this several times (providing my "junk" email address) and have never received the

information the Motley Fools promised. Instead, they bombard my mail account with worthless spam. I suspect they also sold my email address since I also start receiving spam from unknown companies.

The sports betting scam

When I worked as a Special Agent in a former life, I was involved in an investigation of an off-shore sports betting site. The owners of this site quickly discovered they could make more money selling gambling advice, also known as tout services, then from the bets themselves. The profit on sports bets was about 5 percent – (10% of losing bets), similar to on-shore bookies and casino sports books.

Say Boston was playing New York, they would tell half their new subscribers (or potential subscribers) to bet on Boston, and the other half New York. After the game, half of their customers would feel their handicapping might be good and the other half would probably quit. For the subscribers who stayed, they would tell half of them to bet one side of a game, and the other half to bet the other side. Again, half of their customers would think they were great, and the other half would have their doubts. After doing this once or twice again they would have a smaller pool of customers who thought they were geniuses and would pay big bucks for their next tip.

Conclusion

The Motley Fool, and many other stock picking services, operate in a similar way to the sports tout scam. At least they are no fools, only people who buy their services are.

APCUG Guest Article

How Reliable is Reliable Enough?

by Greg Skalka, President
Under the Computer Hood User Group
www.uchug.org president (at) uchug.org

Google defines reliability as consistently good in quality or performance; able to be trusted. We all want our technology to perform well, as we depend on it more and more in our lives. In placing a call, turning on our lights, driving to the store, checking our bank balance, or taking a commercial flight, we all want (and perhaps expect) 100% reliability in our experiences with technology. Nothing can be completely dependable, however, and no matter what we expect, tech failures happen. Reliability can be regulated by government agencies, specified by standards, or simply provided "as-is" by the manufacturer. In the end, it is up to each of us to decide if the reliability levels we get meet our needs.

Most large companies now use an ISO 9000-based quality management system to demonstrate their ability to provide quality products and services that consistently meet their customer's needs. The basics boil down to 'say what you do' and 'do what you say'. Unfortunately, for the customer, the issue is often that not enough is said, and the only standard the customer has is their expectations about quality and reliability; these usually wind up being different from the vendor's.

I have a lot of smart home devices. Many companies make and support products and systems to remotely control lights and devices in your home. You can control them remotely through an app on your smartphone or tablet, or through an Amazon Alexa or Google Home Assistant device. In addition to immediate control, your items can be programmed to turn on and off in a scheduled manner. The manufacturers portray these smart devices as simple and easy to use, so the consumer might assume they are reliable. Unfortunately, they are fairly complex and sometimes not so reliable.

I'm typically up and out of the house to work well before my wife is awake. To make my workday mornings easier (and safer, especially in the darker mornings of winter), I program lights downstairs to come on just before I would come out of our bedroom. This gives me a little bit of light to help me see when going down the stairs before dawn. I use a Belkin Wemo smart plug, with a family room lamp plugged into it, to give me some of that light. I've programmed the ON time in the Wemo app so that at my selected time the Belkin servers send a message over the internet and through my Wi-Fi to the smart plug to turn on. Once I get downstairs, I turn the light off manually with our Amazon Echo Show as quietly as possible, using the screen icons rather than voice control. In this case, the OFF command is sent from my Show over the internet to Amazon's servers, and then passed to the Belkin servers and back over the internet to my Wemo smart plug.

This seems like a lot of complex communications, but it has worked very reliably over the four months since I set this up. Last week, however, it didn't do so well, failing to turn off correctly on two different days. On the first day, Alexa could not turn the light off; I had to go into the Wemo app to do it. On another day, even the Wemo app could not turn the light off, as the smart plug appeared as inactive in the app. I finally had to resort to pressing the button on the smart plug to shut it off. In both cases, everything worked fine again after a short time. I was happy to see it working, but was reminded of the engineering saying "Problems that go away by themselves can come back by themselves."

Though I was not happy that the smart plug worked unreliably those two days, was there anyone I could blame? Perhaps not, as Belkin and Amazon had said I could control my light in this way, but they didn't say it was guaranteed to work 100% of the time. That it had worked reliably all but two days in four months is in reality pretty good, considering the plug cost only $20 (and the Echo Show cost $50).

This brings up one key factor in the reliability equation: high reliability generally costs more. The successful landing of the NASA Perseverance Mars rover last week was a tremendous technical achievement, but it came at a cost of around $2.5 billion. That kind of money can buy a lot of reliability, however. The NASA Opportunity rover, launched in 2003, cost $400 million and had a planned mission duration on Mars of around 90 days, yet it continued exploring and communicating until 2018. NASA's Curiosity rover has been operating on Mars for the last 8.5 years, far exceeding its original 2-year mission life. Hopefully, Perseverance can demonstrate a similarly high level of reliability.

Money can't buy total reliability, however. Since its inception in 1958, NASA has spent over $650 billion (perhaps $1.2 trillion after inflation). It has had many great successes, putting 12 men on the moon, exploring all our system's planets with robotic probes, and currently has put five rovers successfully on Mars. It has had some tremendous reliability successes, such as the Voyager 1 and 2 probes that are still providing communications as they leave our solar system. It has also endured tragic failures, the worst of which are the losses of crews of the Space Shuttles Challenger and Columbia, and Apollo 1.

Not everything needs to be as reliable as a spacecraft, but many things, especially where failure would involve loss of life or a high economic loss, require high reliability. Structural items such as buildings, bridges, and tunnels, and transportation items like aircraft, trains, ships, and cars, all need higher safety and reliability standards. You may sit in both, but you justifiably have greater concerns and expectations about safety and reliability for your automobile than for your La-Z-Boy recliner.

One way to mitigate risks when reliability and safety are not deemed sufficient is through back-up systems. Hospitals may add back-up power generators to compensate for a power grid that is not totally reliable. There probably are measures that should have been taken (and now likely will) to harden the Texas power grid against the extreme cold weather it experienced recently.

Our computers hold information internally in rotating magnetic platter hard drives and SSDs, but these are not immune to failure, so prudent users back up that information. Automobile tires can fail for a variety of reasons, so automakers offer several back-up systems, including a spare tire and changing tools, puncture sealant, and run-flat tires. Tire pressure monitoring systems are now required for all automobiles, as a safety backup.

We have continued to add safety features to motor vehicles over the years to reduce the number and severity of accidents. Safety glass, power steering and brakes, seat belts, airbags, energy-absorbing bumpers, and rear back-up cameras all add safety to cars through technology. Despite these enhancements, however, over 16500 Americans died in motor vehicle traffic crashes in 2020. Now automakers are looking to add self-driving technology to our highways; will it be safe and reliable enough?

Sometimes reliability is not as important as other factors, such as cost or convenience. Often new technologies are not as reliable initially, but in time may improve (or wind up being shunned by consumers). I like my Amazon Alexa devices, but I don't always get the responses I expect. Considering the complexity of the system, low cost to me and less than a critical need for the information, a less than perfect performance is acceptable. Alexa may not always provide the information I'm looking for, but I'm easily able to recognize this and so am not really harmed by her "incompetence".

Some kinds of unreliability are more acceptable than are others. If your smart home lock is unreliable, it might be better if it occasionally fails to unlock when you get home, rather than sometimes not locking when you leave. It is the same with computer security; it is better to err on the side of being too restrictive than too permissive. Users can put up with only so much in unreliable access, however. New technologies such as fingerprint scanning and facial recognition for login, though more convenient than passwords, won't gain wide acceptance if valid users are not reliably recognized. If the convenience difference is great enough, however, users might be willing to accept having to scan multiple times for access.

Reliability in our technology is important, but the need for it varies with the product and the potential downsides. Our sensitivity to quality issues should be greater for a Boeing 737 MAX airplane than for a wireless router. We as individuals and as a society will have to weigh the cost, quality, and risk trade-offs to determine in each case how much reliability is enough.

Lab Monitor Schedule

The Open Lab session is held once per week: 9 am to noon on Saturdays.

August	Monitor Schedule
Jeff Southwell Ann Warhaftig	Saturday 8/7/2021
Fred Cohen Gail Weiss	Saturday 8/14/2021
John Zuzich	Saturday 8/21/2021
Kathy Kirby	Saturday 8/28/2021