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President's Corner

Do You Trust Your Technology?

by Greg Skalka, President, Under the Computer Hood User Group

www.uchug.org

president (at) uchug.org

Our world runs on technology, yet many of our most contentious disagreements involve whether certain technologies can be trusted, or whether society can be trusted to use them correctly. Is climate change real and man-made? Is nuclear power dangerous? Are electronic voting machines accurate? Are vaccines safe? Does cell phone use cause cancer? Is it time to put on a tinfoil hat?

A strict application of the scientific method should be able to answer our questions and reveal the truth, but only if we all trust science. Unfortunately, with humans involved, there are biases, conflicts of interest, and preferences for one outcome over another. Another problem is that humans are imperfect, and so everything we make and do is also imperfect. Nothing we create is all good; there are always downsides to everything. Often the detrimental aspects of some new thing are not fully realized until much later. Asbestos seemed like a useful fireproofing technology until its toxicity became apparent. When the good aspects outweigh the bad (in some subjective determination), the tech is beneficial. Things are usually not black and white, however, so it is left to individuals and to society to judge their worth.

How we weigh the advantages and costs can be based on reputable information, but it can also come from rumors, false narratives, and speculation. Good things can get bad reputations (like vaccines), while bad things can get marketed as desirable (like tobacco products).

At the individual level, we all have choices to make concerning which technologies we trust and which we do not; which are worth the cost, and which should be avoided. Everyone approaches this differently, bringing our standards, biases, concerns, and experiences. Usually, the benefits are apparent, but the downsides of a particular technology are often hidden and difficult to confirm. They usually involve aspects of safety and security, and it is very difficult to prove something is completely free of risk. The risks are generally to our personal and financial data. Can we get hacked? Can we get tracked? Is someone able to steal from us, or just accumulate more information about us than we’d like? Differences of opinion on these risks can lead to things that are popular with many being shunned by some.

There are lots of examples of mainstream technologies that are not trusted by some nominally rational people. I have some relatives that don’t feel safe flying and now only travel by car, bus, or train (though they had traveled by plane in the past). I feel from its safety record that flying is generally safe enough, but have never questioned them on why they hold this view. John Madden, the former football coach, and sportscaster is reportedly afraid of flying and used a bus to travel to games. Some attribute his fear to a Cal Poly football team plane crash in 1960. I am not aware of any specific incident that would be the cause of my relatives’ concern; they obviously must have a point of view different from mine on this.

I didn’t think much about these differences in points of view until the start of the pandemic last year when I found some good friends who refused to use Zoom. I had set up a personal Zoom account in 2015 to use for some purpose related to UCHUG but never used it much. That changed greatly in March 2020, when we were forced to hold our board meeting virtually on Zoom. Since then, with the help of APCUG, we have been able to use their paid Zoom accounts to hold all our board and general meetings. There are some members we have not seen during this time, but we don’t know why. I am aware of security concerns about Zoom but have researched them, and now have used it so much that I feel it can be trusted.

Before the pandemic, I met for lunch periodically with a group of longtime friends that I worked with at one time or another. After we could no longer meet in person due to COVID, I set up Zoom virtual lunch meetings so that we could stay in touch. Many in this group participated, but some would not; they were concerned about the security issues and “just didn’t do Zoom.” This is unfortunate as I would like to see more of them. I periodically remind them that they could join our Zoom lunches, but I’m always rebuffed. I’m starting to feel like I’m trying to talk them into using heroin. I don’t think they are paranoid, as there are other things that these friends do that I find too risky.

There are a few popular things that I don’t trust at this point. One is social networks. While I do have an account on LinkedIn (for job search and career purposes), I’ve never had a Facebook or Twitter account. I don’t have any interest in them, and since I do have security and privacy concerns about participating in these sites, I just don’t. There are no doubt some things I miss out on by avoiding social networks. My church has a private social network that would probably provide useful information, but my feelings about Facebook have kept me from investigating it further.

Some people don’t trust online banking and bill payment. I once felt that way. While I do still have security concerns, the overwhelming convenience of these services has won me over. I take every precaution I can to keep my online financial activities secure, and so feel my use is safe enough. I sure wouldn’t want to go back to banking in person or by phone or having to mail paper checks in for payments. The postal system seems less secure than it used to, so mail theft of my paper statements now seems a greater risk than an online breach.

I also have reservations about password managers. I have less distrust in them now but originally feared that if they were not secure and could be hacked, all your passwords would then be vulnerable. I developed my own process for managing passwords and prefer it, but would recommend a password manager to others at this point

Voice-operated assistants (or smart speakers) can be very useful, but there are certainly privacy concerns to consider in their use. While I have several Amazon Alexa devices, I don’t trust them fully. I realize I am trading some loss of privacy for their convenience. It is the same with Amazon in general, and with Google. I love Google Maps but have concerns about all the location data I am providing when I use it. It is always a risk/reward evaluation for each service; there are some Google services I don’t feel are worth the risk, and so don’t use them.

A smart or connected home can be a concern for some. I have a lot of smart home devices that I feel are fairly benign, like smart lights, thermostats, and cameras. While I agree it would be handy, I’m not trusting enough to consider a smart lock for my home just yet. I was once very concerned about home Wi-Fi and kept it disabled when not using it directly. As I found reasons to use it more and hardened my home network with more secure equipment and practices, I became more trusting. Still, the majority of my home computers and the ones I use for my most sensitive computing are on my wired network.

Antivirus is something I’ve become less trusting of. After research and consideration, I’m now in agreement with those that believe that any external security program opens holes in the operating system and thus increases risk. I’m now using the security built into Windows 10, rather than an external antivirus program (and saving money). I am much more suspicious of security and “cleaning” programs now, as some exhibit malware-like behaviors.

And then there is Windows itself. Some don’t trust Microsoft and prefer alternatives like Linux or Apple’s products. I don’t trust Microsoft on everything, but since I must live in a Windows world at work, I find it easiest to stick with the adversary I know best. Linux seems like a lot more work, and since I don’t trust Apple any more than Microsoft, why should I pay a lot more for a computer I’m still concerned about?

No matter what technology you consider, there is probably some way it can be misused, subverted, or hacked. Each of us must consider the benefits against the risks when personally using any tech product or service. Those considerations must be made with the best, most accurate, and unbiased information available. We can’t depend on the tech vendors or the government to protect us from harm; we must be our defenders. Perhaps the best we can hope for with our tech is not trust, but a truce.