

The banner features a blurred background of a sunset or sunrise over a body of water, with a warm orange and yellow glow on the horizon. The text 'The Horizon Newsletter' is centered in a large, white, sans-serif font.

The Horizon Newsletter

March 2020

Chrome Extensions Secretly Uploaded Data

By: Shrihan Dadi

Recently, security researchers discovered that over 500 Chrome extensions were secretly uploading private data from users to servers that were controlled by attackers. These extensions were actually part of a larger ad-fraud scheme. Luckily, Jamila Kayla, an independent security researcher managed to discover this. Along with other researchers, they uncovered over 70 extensions, which they reported to Google. Google took sight of this and found over 400 other extensions that were part of the ad-fraud scheme. Google removed these extensions to prevent further data loss and theft. These extensions promoted various utilities through advertising; in order to collect data, they shuffled users through random domains. These domains would redirect users to servers that would collect data. The security team doesn't know since when this ad-fraud team began operating, but reports suggest that it could be as early as 2017. Either way, it is important to watch out for schemes like this one. People should only download trusted extensions from the Chrome Web Store.

Things That You Didn't Know About Winter Tires

By: *Sumant Anantha*

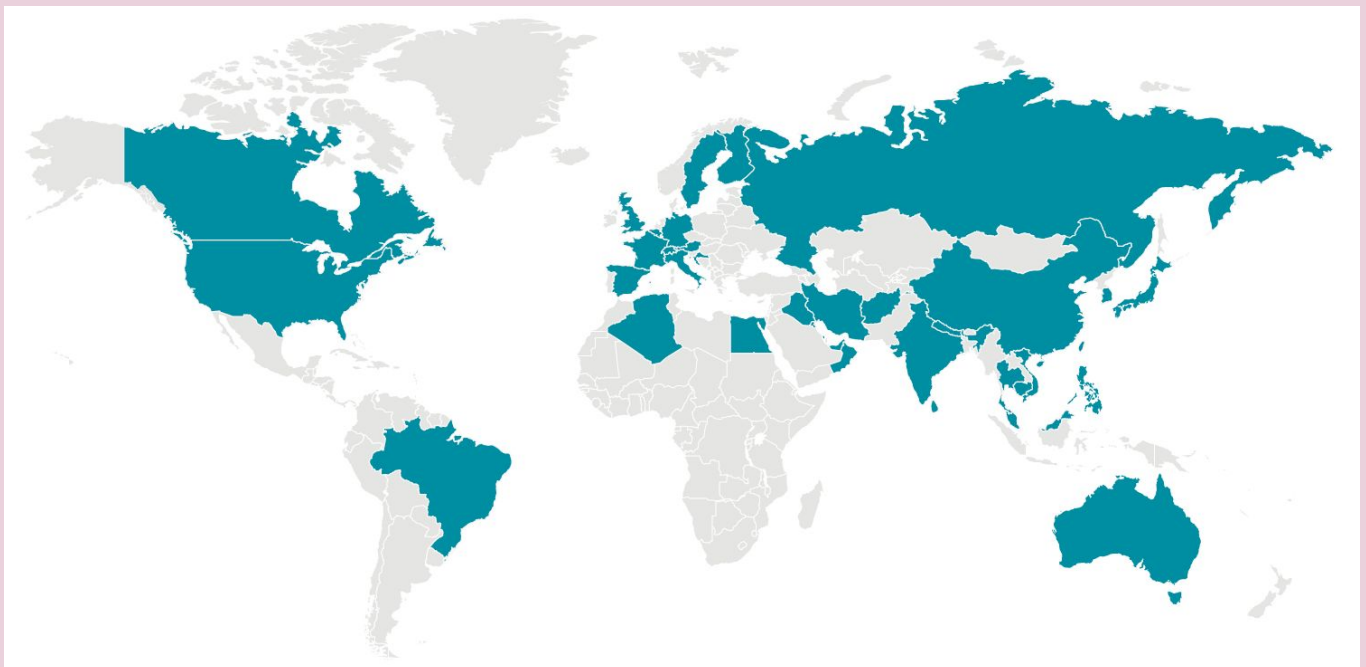
To avoid any accidents especially in winter, drivers should apply winter tires to their cars. There are some basic observations drivers should understand about winter tires. According to the AAA foundation (a traffic safety organization), about half a million vehicle crashes in the U.S. occur from winter storms, bad weather, and sloppy road conditions. Reports from the Federal Highway Safety Administration record that these conditions lead to 2,000 deaths a year. These conditions need a certain type of tire. There are 3 types of tires: summer, all-Season, and winter tires. In warm weather, summer Tires have a hard grip and are usually on sports cars like Corvettes. All-season tires offer flexible performance and are built to perform in a diversity of conditions including light winter driving and wet roads. All-season tires do not work as well as the winter tires in winter due to the design. These tires cannot trek on the snow or be driven on ice because the rubber would not become stiff. For winter tires, The rubber. The most important piece on a Winter tire would be the rubber. When you're driving below 40 degrees, the rubber starts to become stiffer. According to the Tire & Rubber Association of Canada's Consumer Winter Tire Study, Montreal city noticed a 46 percent depletion of crashes in winter when cars used Winter tires. Winter tires will help decrease the vehicle crashes we have today due to their splendid traction in the snowy and icy roads. To gain more traction in snow, you need to run your tires on more snow for Winter tires to advance their function and need traction for good movement. These tires are usually less expensive to buy than summer tires and they allow drivers to have the best possible tire movement in any season. If more People start using winter tires, then fewer accidents or crashes will occur.



Coronavirus Now Threatening the Tokyo Olympics

By: Arya Bharti

The infamous coronavirus (now labeled as COVID-19) has recently spread across Asia and Europe. Although the virus was first detected in Wuhan City in the Hubei Province of China, currently there are three hotspots outside of the country including South Korea, Italy and Iran. As of February 26, 2020, China has a total of 77,685 cases along with 2,663 deaths. South Korea is now identified to have the second most cases in the world with 997, along with 10 deaths. But what does this mean for the Tokyo Olympics scheduled for July? Members of the International Olympic Committee estimate a three month window for the fate of this year's Olympics to be decided and have stated “you’re probably looking at a cancellation”. As of right now in the US, there are a total of 14 confirmed cases, 12 of which were travel related. The CDC (Centers for Disease Control and Prevention) has warned schools and businesses to prepare for a possible nationwide spread of the disease as they expect the spread to increase, “Ultimately, we expect we will see community spread in this country”.



Samsung Live Event: Many New Thrillers

By: Harvik Kolla

Recently, Samsung had a live event to release the new successors of the galaxy dynasty. They came hitting hard with revealing the s20 and the ultra. The S20 is a very futuristic phone. Here's what you're getting: a 6.2-inch screen with a fast 120Hz refresh rate, 5G download speeds (where available), high-spec cameras on both sides of the phone, and a big battery to boot. The real target point for this phone was ultimately the cameras. They shoot in an astonishing 8K and have up to a 100x zoom. This phone costs around 1400 dollars which is on the pricier end of the spectrum, but when you are getting a camera that is better than most actual cameras, it is definitely worth the price. Samsung really stepped up the flagship phone game this year, and keeps us waiting for what can top it. Samsung also came out with new galaxy buds. This is ultimately to try to compete with Apple's bestsellers AirPods and AirPods pros. These galaxy buds come in many different colors and have the capability to charge wirelessly when placed on top of your phone. These new releases from Samsung are transforming the smartphone race in the future and keep consumers on their toes for what's next!



Desert Locusts in East Africa

By: Sruthi Anne

Since 2020 has started, East Africa has been fighting against desert locusts swarming around. This was the biggest locust attack in almost 70 years! They can swarm around 460 miles in size and have between 40 and 70 million locusts into less than half a square mile. The catastrophic swarms, all huddled up - about 180 billion insects - are eating away through thousands of acres of crops and animal pastures, killing livelihoods in the process. Nonetheless, the locusts, which arrived from Somalia and Ethiopia, are vastly spreading to neighboring countries. "These things are voracious," says Keith Cressman, the UN Food and Agriculture Organization's (FAO) senior locust forecasting officer. "A swarm the size of Manhattan can, in a single day, eat the same amount of food as everyone in New York and California combined."



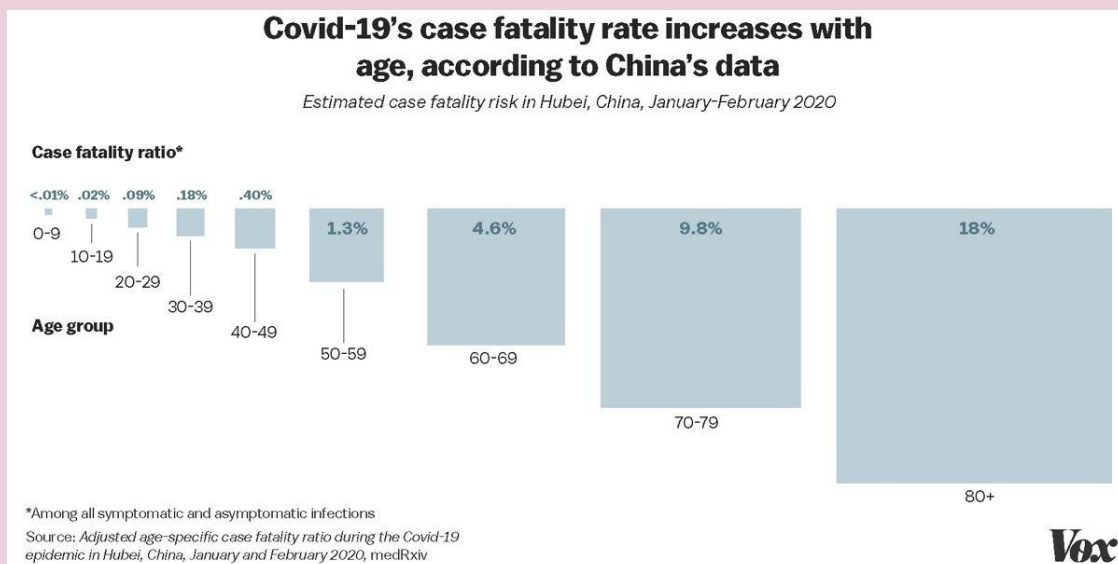
Desert Locusts, or *Schistocerca gregaria*, are well known for their ability to breed rapidly - every three months - and in large numbers. Under the perfect environment, these insects are able to multiply easily - as much as 400 times in 6 months - and cause disasters worldwide. According to FAO, previous outbreaks have spread to almost 60 countries! What

can be done to stop the current outbreak? Experts conclude that locusts can be easily controlled with pesticides. But, this may not be the best option, whereas, they cause pollution in the air and can be toxic to many plants or animals. But, is the only cure for herding off locusts swarming in the air. "We do have a chance to nip this problem in the bud, but that's not what we're doing at the moment," says Mark Lowcock, FAO's top humanitarian official. "We're running out of time." Hopefully, leaders worldwide will recognize the emergency and contribute generously towards the \$138 million needed to control the locust outbreak."

Age and its relation to the COVID-19 outbreak.

By: Abhiram Dasari

Does age play a role in the likelihood of getting COVID-19? Many rumors have been going on about COVID-19, more commonly known as the coronavirus. Some have led to misinformation and panic, while others have led to the general public being well prepared for the virus outbreak. As the economy hits an all-time low, I thought it would be prudent to clear up at least one of these many rumors about the novel coronavirus: Does age play a role in the likelihood of getting COVID-19? So, after hours of scouring the web for evidence, here is the general consensus: a resounding yes. But there are other factors in play as well. First, let's talk about age. In Italy, one of the hardest hit countries by this virus, the average age of the 105 patients that passed away due to the coronavirus or complications caused by the coronavirus was 81. According to a study done this month by the National Health Institute (NHI), this gives a twenty year gap between the average age of people tested positive and the average age of people that passed away. This evidence undeniably shows that you are more likely to pass away due to this virus the older you are. Another study done in China squared with these results. According to results released by the Chinese government, this is the distribution of the fatalities related to COVID-19:



As you can see, you are astronomically more likely to die from the virus if you are 80 years of age or older than you are if you are below 50. This is because as you get older, your immune system can decrease in strength and not be able to keep up with the symptoms caused by the coronavirus. However, there is another factor to the fatality rate of the disease. The immunosuppressed members of our society are severely at risk with this disease. This is a risk with many other diseases as well. This brings up another interesting question, which is: what steps can we take to help protect those more vulnerable to this virus than ourselves? The answer, according to White House officials, and our president's own personal doctor, is mostly to maintain hygiene. When washing hands, use soap and hot water. Wash clothes frequently, and maintain a 6 foot gap between yourself and others. Finally, when using hand sanitizer, make sure that it is 70% alcohol or more, or it will not be strong enough to destroy the proteins in the nucleocapsid of the virus. Now, with these questions answered, I hope that some doubts have been cleared. The coronavirus has sparked panic around the world, and most of it is unnecessary. As long as we take the proper measures to protect ourselves and others, it is possible for all of us to be safe and sound.

A chunk the size of Chicago has been pulsing for the past two decades in Yellowstone National Park.

By: Arya Bharti

Famous for its stellar natural attractions and abundant wildlife, Yellowstone is considered to be one of America's most famous National parks. With nearly 4 million tourists a year, the park generates around \$600 million dollars in revenue annually. But underneath the 3,500 square miles of wildness lies two vastly large magma chambers. The Yellowstone Caldera, which is regarded as a supervolcano, has enough power to produce more than 6 million megatons of tnt. In the past Yellowstone has erupted a total of 3 times within the last 2.1 million years, two of which were super volcanic

explosions. So why is a piece of it in the Norris Geyser Basin inflating and deflating? Experts believe that an injection of magma could be the cause of the change as the area has been known to deform. Currently because of the magma, The Norris Geyser Basin stands five inches taller than it did 20 years ago. Although this may sound alarming, the volcano has shown no signs of an eruption anytime soon and researchers say its a one in a million chance for it to erupt during any of our lifetimes.

Coronavirus

By: Pavitra Madala

As you all know, coronavirus is becoming a big phenomenon that has changed from an epidemic to a pandemic in the span of a couple of months. Its cases continue to grow rapidly and have a big effect on many areas of North Carolina currently. What is important to know is that this disease was introduced to humans in 2019. Coronaviruses are zoonotic, meaning they are transmitted from animals to humans. Coronavirus that results in Severe Acute Respiratory Syndrome is transmitted from civet cats to humans while the virus that results in Middle East Respiratory Syndrome is transmitted from dromedary camels to humans. No matter its origin, coronavirus must be taken seriously and the public needs to be more sensible about it. It is important that the public washes their hands properly. The use of hand

sanitizer is not enough as it does not eliminate all the germs, so hand washing is recommended. Remember to keep your hands away from your face and avoid close contact with people. Stay safe!

