

The Horizon Newsletter

"Our goal as teens of this community is to inform the public in the Triangle area about our generation's view on topics in our world. We hope to connect with others of our age and allow them to voice their opinions on relevant issues. Above all, we would like to encourage our peers to do their part as active members of this society."

Hello readers! This month's issue officially marks a half-year of Horizon Newsletter! We'd like to take this opportunity to say a big thank you to all of the people whose support has made this possible. We would not have gotten this far without you. Thank you for reading! Enjoy this March 2018 issue of the Horizon Newsletter!

News:

Current Events

By: Shrihan

❖ Arbor Day

- *Date: 03/17/2018 1:00 PM - 3:00 PM*
- *Location: Downtown Park*
- *Help us celebrate our 35th year as a Tree City USA community at our annual Arbor Day event on March 17. Join us at the Downtown Park for live music, crafts for kids, local food, and more. A tree dedication ceremony opens the event at 1 p.m. and don't miss your chance to chat with local green experts about trees, wetlands, local food and more until 3 p.m. While supplies last, attendees can pick up a free tree to take home and get tips from a certified Arborist.*

❖ Tennis on Campus Border Battle

- *Date: 03/24/2018 - 03/25/2018 (all day)*
- *Location: Cary Tennis Park*
- *Come watch as USTA Tennis on Campus club teams compete in the Border Battle. Now in its fifth year, this tournament brings over 25 teams from across the nation to battle it out on the tennis court. Great competition coupled with a fun atmosphere makes for an exciting weekend of tennis! For more, call (919) 462-2061 or visit Cary Tennis Park Tournaments and Events.*

❖ Break the Silence 5K

- *Date: 03/24/2018 10:00 AM - 12:00 PM*
- *Location: WakeMed Soccer Park*
- *The Break the Silence 5k began in 2011 as a Sigma Pi fraternity event in memory of late brother, Marc Haege. Since 2011, the Break the Silence 5K event has raised money for the NC State Student Counseling Center with increasing participants and donations each year. The goal of their race is not only to remember those lost to suicide, but also to raise awareness for the resources available to people who may*

be suffering from depression. We want to help "stop the stigma" that many people have causing them to refrain from speaking out about their depression. We want for those suffering to know how to seek help, and also want to empower the staff of the Counseling Center to be as equipped and effective as they need to be to combat such a serious problem on a large college campus. Depression and other anxiety issues affect people of all different backgrounds and ages. Currently, close to 25 million Americans suffer from depression each year. Although the number of people suffering from depression and other similar mental health issues is large, the amount of awareness of such issues is not at a point where many people know how to cope with them. The Counseling Center at NC State has programs and services for all students throughout the school year, teaching them about depression and other serious mental health issues. Through efforts such as the Break the Silence Sk, many of these services can reach larger audiences and can positively impact and educate more students. The Break the Silence race has had over 800 participants over the past two years, and this year, we are looking for even more. Our group wants to be a voice for all people interested in bettering the mental health resources on NC State campus and in the Raleigh community. The Break the Silence is not just a race, but also a voice for suicide prevention and mental health awareness. As a united voice, we can make a significant difference in serious mental health fields and help our community progress towards a better future.

Gun Violence in America

By: Amuktha Dasari

Columbine High School, Littleton, Colorado; 15 deaths. Bart Township, Pennsylvania; 5 deaths. Oikos University, Oakland, California; 7 deaths. Sandy Hook Elementary School, Newtown, Connecticut; 26 deaths. Marjory Stoneman Douglas High School, Parkland, Florida; 17 deaths. In total? 70 people. 70 mothers, fathers, sisters, and brothers. 70 sons and daughters, wives and husbands. 70 friends and loved ones lost. 70 people whose lives ended far too soon, through the actions of others. 70 people whose names will never be forgotten. 70 unacceptable, avoidable, completely unnecessary deaths.

The attacker in Parkland, Florida, on February 14th, used an AR-15, a semi-automatic assault rifle made with the express intent to kill people. It was first developed as a weapon of war, used in the military. It is inherently dangerous, and should not be in the possession of a civilian adult, let alone a high school student. If the shooter didn't have access to such a dangerously effective weapon, 17 lives would not have been cut short.

Students from the Parkland high school are speaking out in support of stricter gun control laws. Student-organized walkouts are popping up all over the country, and the survivors are holding rallies, marches, and protests- anything they can do to make sure their voices are heard. There is some measure of hope that even though lawmakers are not doing much, the children are taking responsibility to making a change in our country. Hopefully, this cry for help will galvanize politicians to action.

This is not a new issue plaguing our country, nor is it a minor issue. The United States makes up less than 5% of the global population, yet it accounts for 31% of global mass murderers. Gun homicide rates are over 25 times higher in America than any other country in the world. For all of our talk of the right to life and liberty, we are one of the leading nations in gun-violence related deaths in the world. Americans own 48% of all guns in the world. Yemen, home to the world's second-largest gun-owning population per capita (and a country in the throes of a three-year-old civil conflict) is not close behind the US in terms of ownership.

As per the Second Amendment of the Constitution, "the right of the people to keep and bear Arms, shall not be infringed." Meaning, it would be against the constitutional rights of Americans to try and prevent someone from owning a gun. So the issue now is this: what, legally, can be done to limit how many guns are owned by Americans?

Proposals have been made; a bill to ban bump stocks, an accessory that can be used to turn a semi-automatic gun into an automatic gun, is being developed. Another slightly more radical proposal is to limit the type of firearms civilians are allowed to own. For example, the M-16, a commonly used military weapon is produced and marketed to the general public as the AR-15, the same model used in the Parkland shootings. The only difference between the one offered to the public and the military weapon, is an absence of a switch that would allow the latter to become a fully automatic gun. This can be easily circumvented through the use of readily available bump stocks. Essentially, an automatic assault rifle in the hands of an untrained individual. Is this necessary? For those who claim to own a firearm for self-defense, is a military-grade weapon required? Should there be restrictions on which guns can be owned by civilians? And does this necessarily limit the second amendment right to bear arms?

The facts remain unchanged, however. Politicians are at the same stalemate they were in 2012, each side faced with a dilemma: gun control or no gun control? Of course, we have heard promises of increased background checks and safety measures. We have heard the condolences, the "this should never happen again"s. But results are nowhere to be seen. As said best by the Parkland students, we need action, not thoughts and prayers. When did it become the norm to accept the death of innocent students? When did it become acceptable to even compare a student's right to life to someone's right to own a firearm? The current political climate in our country has a disturbing lack of bipartisanship. All we can do is cry out for justice, and hope our voices are not lost in the cacophony that is American politics.

Trump's 10% firearms to teachers plan

By: Sumant Anantha

Trump made a suggestion at meetings to give teachers gun training and to allow guns at school. Trump said they want to tough out the schools and not leave them out for another shooting. "A 'gun free' school is a magnet for bad people," Trump tweeted Thursday morning. "ATTACKS WOULD END!" February 22nd

If teachers had guns, criminals would not be able to go to schools for a shooting according to Trump. David Hogg, survivor of the Florida Shooting, said no because the resources of arming teachers is scarce and this could scare the children. Teachers with guns would be much dangerous than shooters with guns because teachers are basically in hold of a firearm right in front of the children.

What is actually needed to help shooters stay away from schools and shooting children would be sharp security. It would help if u had alarms and cameras to help identify the person and why they came to the school. Trumps does not want the school to have sharp teachers but a defensive upgrade for all wake county public schools. Teachers should not be armed but only wake county security guards should have upgraded firearms.

Is Spongebob Squarepants actually ending on March 1st 2018?

By: Sumant Anantha

A twitter message was sent out from the Spongebob producers saying that Spongebob will start to end in March 1st 2018 which made many kids depressed. The message is actually revealed to be fake and that they renewed the season, last May. There were fake messages also in 2013 and 2016 that said the show will end. Some people just want the world to burn sadly. So for those who think it will end, don't worry because it will continue on to people who love it. Here is more information.

<http://www.ign.com/articles/2018/02/26/is-spongebob-squarepants-ending-fake-cancellation-rumor-hits-social-me>

Academics (NASA Webb telescope)

By : Harvik Kolla

Water is crucial for life. But where can we find it? In many galaxies away, there surely lies a planet with some form of water with habitable circumstances. NASA's James Webb Space Telescope will aid us in understanding in the origin of water. But how do does NASA do this ? "We plan to use a variety of Webb's instrument modes and capabilities, not only to investigate this one region, but also to learn how best to study cosmic ices with Webb," said Klaus Pontoppidan, of the Space Telescope Science Institute (STScI). The team will use Webb's sensitive infrared detectors to observe stars. As light from those faint, background stars passes through the cloud, water in the cloud will absorb some of the light. By observing many background stars spread across the sky, astronomers can predict ices within the cloud's entire space, and locate where different ices form. This can be very beneficial for the future and holds a promising result.

Technology (Samsung S9 and S9+)

By Harvik Kolla

Samsung's new phones, the Galaxy S9 and S9+, have arrived, and it does not have much added since the S8. The phones come in four colors ; Lilac Purple , Midnight Black , Titanium Gray, and Coral Blue. The exterior specs of the S9 are 147.7 x 68.7 x 8.5 mm weighing in at 163 grams. The S9+ is a little bigger with 158.1 x 73.8 x 8.5 mm and weighing in at 189 grams. Both of the phones have a Quad HD + AMOLED Display(2960 by 1440). The S9 has a storage of 4GB RAM and 64GB and the S9+ has a storage of 6GB RAM and 64GB. Now, looking at the price, the Samsung 9 is \$719.99 and the Samsung s9+is at \$839.99. Since the official release date of these phones is March 16, Pre- Order forms are available on the Samsung website. Will this phone be the next generation smartphone or just another average phone?

Smartphone Addiction

By Pranay Koneru

Many of us are involuntarily addicted to our smartphones often times using them for hours upon end. There's even a term for this syndrome known as nomophobia, which is the fear of not being able to use your cellphone or any other smart device, and according to Common Sense Media 50% of teens say that they feel like they are addicted to their smartphones. So what are the consequences of smartphone addiction? Well one of the most prominent syndromes is known as text neck. Text neck occurs when users look down at their smartphones for extended periods of time often causing upper back pain and sometimes even early onset arthritis in the neck. The reason for all of this is because when people are texting they tend to bend their necks at a 90 degree angle. This places over 60 pounds of pressure on the neck which is equivalent to about six plastic bags of groceries or the average weight of an eight year old. Text neck may sound extremely scary but there are a plethora of ways to prevent it. The first and most obvious one is don't use your smartphone as much. The second one is even when you do try not to use it for extended periods of time and take breaks whenever your neck starts hurting.

Now text neck is one of the physical ailments caused by smartphone addiction, but did you know that there are also multitude of mental and psychological syndromes that can be found because of smartphone addiction. For starters the blue light that is emitted by smartphones can make it harder to fall asleep and it can even affect the quality of sleep. This is because this light is known to alter and change our sleep cycles by affecting various chemicals in our bodies. To combat this you can try not to use your smartphone before you go to sleep. This will allow your body to naturally ready itself for rest. Adding on to sleep deprivation, try not to use your phone while in bed. When you do this your brain stops associating your bed with sleep. This in turn will make it harder to fall asleep.

The last effect of smartphone addiction that I would like to talk about is anxiety. Research has shown that teens who use their smartphones for a substantial amount of time longer than their peers tend to be more at risk for stress and anxiety issues. This can affect them by causing depression and maliciously affecting their health as a whole. After reading all of this picking up your phone again might frighten you, but there is a simple solution; moderation. If you use your phone for short periods of time, you won't have to worry about any of these problems. Decreased use of your phone may even improve your life allowing you to reconnect with friends and family through verbal communication. In the end just remember to live your life and not let your smartphone take control.

Health

By: Pavitra Madala

People may die because of various diseases, such as a stroke or a respiratory infection. But how many people do you know that died because of the flu? Between the days of February 25 and March 3, 12 people died in NC, bringing the state's flu deaths up to 276.

The flu is a contagious respiratory illness that can sometimes lead to death. This flu season has been worse than others because "the H3N2 strain has been the predominant strain this year," says David Priest, the medical director for infection prevention for Novant Health. "The strain attacks elderly and young children who have more underlying issues and compromised health," says influenza epidemiologist Anita Valiani.

Some groups, such as old people, young people, and people with medical conditions, have a higher risk of getting flu complications. According to the N.C Department of Health and Human Services, in the latest victim total, there were 14 who were ages 65 and older, 6 in the 50-64 age category, 2 in the 25 to 49 age group, and 1 in the 5 to 17 age group.

The best way to treat this is by getting vaccinated every year. The National Institute of Health is trying to develop a universal flu vaccine that would cover more strains and last longer than a year.

For more information, visit <http://www.flu.nc.gov>.

Submissions:

The Internet of Things

Nidhi Vellanki

The internet of things is a durable network of devices, in which all have electronics, software, and sensors embedded into everyday objects. These sensors, electronics, and software enable the everyday objects to exchange and analyze data. The internet of things has been transmuting the way we live for almost two decades, constructing the way for responsive solutions, unprecedented products, efficient manufacturing, and finally, amazing new ways to do business.

As of 2016, the perspective of the internet of things changed due to the occurrence of several technologies, including omnipresent wireless communication. Did you know that the term "Internet of things" was contributed by Kevin Ashton of Procter and Gamble? The devices collect functional data with the help of multiple existing technologies and then flow the data between other existing devices.

To learn more about the Internet of things go to:

<https://www.forbes.com/sites/jacobmorgan/2014/05/13/simple-explanation-internet-things-that-anyone-can-understand/#4aac5081d09>

The Florida Shooting

By Ria Vellanki

The shooting at Stoneman Douglas High School in Parkland, Florida took the lives of 17 students, and because of this unfortunate event, government officials are rethinking gun laws. Florida governor Rick Scott wants to have tougher background checks on people buying firearms. Governor Scott said, "No one with mental issues should have access to guns. It's common sense, and it is in their own best interest -- not to mention the interests of our communities. And much of what I'm proposing involves giving law enforcement the ability to stop people from harming themselves and others, while giving them the tools to keep our schools safe."

Scott's plan is to raise the minimum age to buy firearms to 21. He also wants to ban "bump stocks" that can make a semi-automatic weapon fire more rapidly. Scott is also asking for \$500 million for mental-health initiatives and school safety. The GOP legislative leaders had a separate proposal; they want to include a three-day waiting period for all firearm purchases. The plans also propose that trained teachers should carry weapons on campus, but not misuse them. Both proposals don't have what many Stoneman Douglas' students want; a ban on the sale of semi-automatic rifles like the one used in the attack, which was an AR-15. This event was very unfortunate and many hope the government decides to prevent other disasters similar to this.

What is the hyperloop?

By Abhiram Dasari

Numerous people founded many great companies, but Elon Musk, the visionary behind many companies, including Tesla, SpaceX, and PayPal, has introduced a new concept into the world: the Hyperloop. This transportation system is supposed to go at top speeds of up to seven hundred and sixty miles per hour or one thousand two hundred kilometers per hour. This will reduce the 383 mile journey (L.A. to San Francisco) from 5 hours 30 minutes by train to a mere 35 minutes. But how can a vehicle be capable of going this fast? The answer is magnetic levitation.

Magnetic levitation has already been used in the past to make trains go much faster than they normally do: almost 350 miles per hour. But this is nowhere near the speed that Elon Musk has proposed. That's because magnets are only part of the answer. To further reduce friction, Musk says that the pod will be placed in a low-pressure tube with electric motors periodically placed inside the tunnel. Furthermore, so-called "air bumpers" will be placed along the side and bottom of the pod, enabling the pod to glide along the tunnel at super-fast speeds without an exorbitant amount of friction. Imagine skis being attached to the bottom and sides of a pod. Finally, to reduce friction to the lowest extent possible, there is a fan at the front that blows the little air that could produce more drag from the front to the back, eliminating the air resistance.

There are two companies currently in the "hyperloop race": Hyperloop Transportation Technologies and Hyperloop One. They both plan to bring the Hyperloop to reality by 2020, and carry passengers by 2021. They are both building test tracks in Europe and the U.S. respectively. However, will the hyperloop really be the transportation of the future?

Most experts say that if the Hyperloop really does what people say it will, then yes, it probably will be the transportation method of the future. However, there are many skeptics, and their doubts are well justified. For example, so far, the only pods tested have been almost 3 times too small to be used commercially. Also, the tubes don't exactly account for the expansion and contraction in the tubes made by temperature changes, which will leave the rider up to 300 feet from his or her final destination. However, innovations are currently being worked on to counter these problems, and are set by supporters of this technology to be in use by 2020, the same year that Hyperloop is supposed to become a reality.

So, in theory, the Hyperloop works and it could become the transportation of the future, but there are obviously technical challenges.

The Controversial Topic of GMOs

By: Vibhu Subramani

If you've eaten anything today, chances are you've snacked on GMOs. What are GMOs? A GMO, or genetically modified organism, is an organism whose genetic makeup has been modified. GMOs are in every product now and many people have mixed opinions about its effects. According to the U.S. Department of Agriculture (USDA), GMO seeds are used to plant more than 90 percent of corn, soybeans, and cotton grown in the United States.

Some of the benefits of GMOs are resistance to insects, tolerance to herbicides, and tolerance for heat, cold, or drought. GMOs help bring food to people all around the world and play

in part of reducing poverty and hunger. But now there have been many people who suspect if GMOs can negatively affect the human body. Now GMOs have led to increase in cancer, antibiotic resistance, and allergies. The long-term effects seem to be negative but is it worth it? GMOs provide people with cheap food but at the cost of your health. Is that trade off worth it? We may never know but we have to stay open to new news about GMOs.

Interviews:

This month, two of our reporters, Amuktha and Pavitra, went to interview Mr. Brock Winslow, the Vice Chancellor of the North Carolina School of Science and Mathematics (NCSSM). We asked him a few questions about his job. Here is how our conversation went.

An Interview with Brock Winslow

March 12, 2018

- 1. You actually went to NCSSM for your last two years of high school. What can you tell me about the experience? What made you want to come back?**
 - a. NCSSM introduced me to a diverse set of people and it exposed me to a range of academics I was also a volunteer. This was the main reason I came back.*
- 2. I assume that since you went to NCSSM, you wanted to pursue a career in math or science. What made you change your career path?**
 - a. I always wanted to be a doctor. I was a biology major. I changed my paths and I got very interested in philosophy and political science. I wanted to go to law school. There was one thing after another. I'm married to a doctor, so I'm fine.*
- 3. What do you think is the key to success when communicating with the public?**
 - a. It's always convenient to speak from the place of truth. I'm so affected by the experience here.*
- 4. Can you share an experience where you have dealt with a difficult person and how you have handled that situation?**
 - a. I've not encountered great or unusual diversity in my life. I've been fortunate that my role here has been a blessing. That doesn't mean that there aren't difficulties. Persistence is something important. I've encountered a few difficulties with persistence. If you have the patience and discipline to work for what you think is right, success is almost guaranteed in the long term.*
- 5. Do you have a favorite part of being Vice Chancellor for Institutional Advancement at NCSSM?**
 - a. My favorite part is traveling and engaging with fellows. I get paid to go and visit my former classmates. It's fun to meet alumni from various parts of the world.*
- 6. How do you administer institutional growth in your job?**
 - a. Fundraising. We are thoughtful about the goals we set for ourselves. I am a believer of that aggressive goals are good. That might even be an advantage. Goals are very important. Also, selecting the right team members is important. You should be thoughtful about who you are recruiting and that could help lead you to success.*
- 7. Who were the mentors or the leaders who inspired you?**
 - a. My grandma was a great mentor to me. She was the first woman elected to office in my home county in NC. She was actually the person that encouraged me to*

apply for school at NCSSM. Governor Jim Hunt was another mentor of mine. I worked with him off and on for a few years. He helped find NCSSM. My friends and colleagues also inspired me.

8. *What are some of your responsibilities as Vice Chancellor?*

- a. *Our team is responsible for charitable fundraising, communications, and constituent work for the school. Charitable fundraising is a very important ratio of what we do. Communications is the primary way of almost everything. Communications is obviously different in a boarding school than a typical public school. Constituent work, we have to keep alumni bonded to our school. Part of my responsibility is to communicate with our legislators in the General Assembly about the school and what we do. We work with about 120 leaders and advocate the agendas at NCSSM.*

9. *What are your hobbies outside of work?*

- a. *I like to read. I read mostly nonfiction. The latest book I read is called *Boys in the Boat*. It's a great story about teamwork and compassion. I enjoy hard work and being outside since I grew up on a farm. I love doing artwork. I love playing golf. I love the beach and the mountains, and I love to fish. I love my dog as well. I'm a dog guy. I've always had a dog as long as I could remember. I think that they make you more "human."*

10. *What do you recommend/suggest to prospective students who want to get into NCSSM?*

- a. *You have to be thoughtful and intentional about your own intellectual. There should be an intellectual curiosity in you that underscores your academic performance. Being able to talk about your intellectual interests is very differentiating. I would recommend that students should differentiate themselves. It's difficult to make decisions when everyone is. I think students should about their own intellectual and be able to explain it in the applications in such a way that it is differentiating.*