



Gun Control: A Plea for America

Students standing up for putting guns down.

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New Superintendent

Meet Peter Light: that's him to the right.

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The Spectrum

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Spring is finally here. Be-leaf me.
David Kwon / Spectrum Staff

The Role Models Around Us

By LIZETTE STA. MARIA '19
Spectrum Staff

Supposedly, my mother knew how to read before she even started going to school, borrowing her older sister's Henny Penny book to explore her early fascination with words. In the years that followed, she amassed an impressive collection of medals through all her academic competitions. Eventually, she graduated from college with honors and became a registered nurse. Some time after I was born, my family left the comfortable island life of the Philippines to take a chance at the American dream. Pictures from that twenty-two-hour flight show my mom struggling to carry me, a fussy toddler, in her arms with my baby sister still in her belly. There had been a part of her that was scared to start over, but her tired eyes glistened down on her children as if insisting that a world of possibilities awaited.

At a young age, my mom instilled the value of education in

me; I knew I wanted to accomplish as much as she had and more. The perfect opportunity to do so presented itself at my third grade spelling bee. I was feeling good, breezing through every round when I made a fatal mistake—"Walrus. W-a-l-l-r-u-s." No one word could sum up how I felt after coming in fourth place; only the top three contestants would receive recognition. I fled to my mom in the audience. I knew it was nothing like the school competitions she used to win back home. On the verge of tears, I tilted my head up, surprised to find the biggest, brightest, warmest smile. Mom was beaming about how proud she was of me. And instead of merely looking up at her then, I looked up to her—the first person not only to teach me how to spell, but to dream big, aim high, and get back up. In that moment, it felt like she had passed on that sparkle in her eyes to me. Suddenly, there was no room for tears.

Then, in fifth grade, I won a five-way tie at the school spelling bee.

Everyone needs someone to look up to. Everyone needs a hero to show them how to touch the sky and a role model to be living proof of possibility.

"Who's your girl hero?" is a question often posed during Girl Up meetings. The UNF campaign works to provide education to girls in developing countries. AB Girl Up itself has devoted many years to the mission, with past events including raising money to buy bicycles for Guatemalan girls to get to school and calling on representatives in Congress to pass a bill that ensures the protection of refugee girls. Sometimes, at meetings, Girl Up members will just sit back and ask themselves why they do what they do and who inspires them to continue.

Club officers initiate the conversation, using the term "girl hero," coined specifically for October 11th's International Day of the Girl campaign but applicable in any situation; it simply means "a girl who inspires you." One member

names her mother. The next mentions First Lady Michelle Obama. And we end on a sweet note with "each other."

This idea of building each other up is also prevalent in AB's mentoring program, where upperclassmen have the opportunity to be role models to younger high school students. I've had the honor of becoming a mentor myself for this year's English Transition Team along with the pleasure of witnessing something truly magical: as another fellow English mentor, Ivana Barnes ('19), put it, "When we help people, they are more likely to help others, and it really helps build a more supportive community." The mentoring program creates a radial effect—you to put yourself in a position to inspire success in others so that they in turn will inspire even more people.

When asked if she considered herself to be a good role model, Math mentor Neha Sistu ('19) replied...

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Intro

Letter From the EICs

By JASMINE MANGAT '19 AND
NITHYANI ANANDAKUGAN '19
Co-Editors-in-Chief

At AB, every student has their struggles. Every student receives at least a few bad grades. Every student makes a dumb comment in English class.

We tend to overcome these small adversities by moving forward, by progressing, and by growing. As students, we continuously learn from our mistakes and try to do better the next time.

It thus felt fitting for the Spring Issue to select "Growth" as our theme. The days are growing longer, the trees are growing back their leaves, and we students are continuing to grow as well.

On a larger scale, our nation is trying to grow and to develop further as well. Following the tragedy at Stoneman Douglas High School, a conversation on the gun control issue has once again begun. However, this time, it's different. This time, students our age seeking national change have led the conversation.

The conversation has touched our local community through a school walkout, marches, and even public forums to discuss the different points of view about gun control.

Even here at *The Spectrum*, although on a much lesser scale, growth continues to follow us as the year progresses. Spring is typically a hectic season at the newspaper. This period is almost always one of change and adjustment. Over the past few months, Spectrum members have applied for next year's Chief Staff positions, while seniors have tried not to "slide" away just yet. But between the busy weeks of meeting, interviewing, drafting, and editing, our writers and staff members have certainly grown in the work that they have produced for us.

This Spring Issue is only eight pages, but these eight pages have also been three months worth of hard work in the making. We have certainly attempted to make these eight pages as perfect as possible. But, if we have learned anything, it is that there's always room for growth.

The Spectrum

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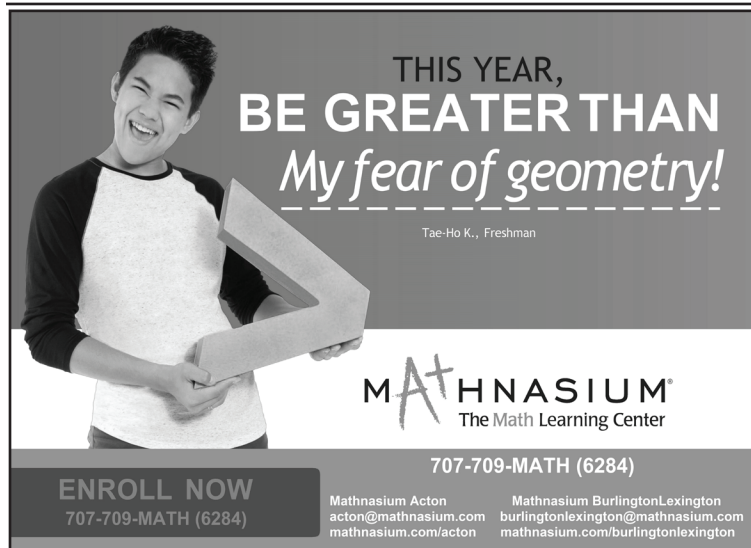
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THIS YEAR,
BE GREATER THAN
My fear of geometry!

Tae-Ho K., Freshman

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Good News: Spring Issue

By ANJALI RAMAN '18
News Editor

News often focuses on sad, disappointing, or even scary stories in an effort to create change in politics, opinions, and society. There is barely any time or energy to celebrate change and the flood of good news that remains hidden in the ocean of bad news. For a few minutes, forget the current troubles of the world and embrace the progress and excellence we often overlook.

A new pediatric cancer drug with a 93% effectiveness has been approved for commercial use by the FDA. Larotrectinib targets cancerous cells which exhibit a fused tropomyosin receptor kinase (TRK) gene. TRK gene fusion stimulates mitosis and the growth of cancerous cells, so this targeted therapy can easily identify unhealthy cells and prevent further mitotic divisions. The drug, developed by UT Southwestern's Simmons Cancer Center, is especially promising because TRK fusion is present in many solid tumor cancers such as lung, colon, thyroid, and breast cancer so its effects are widespread. According to Dr. Laetsch, the lead author of the study, "Every patient with a TRK fusion-positive solid tumor treated on this study had their tu-

mor shrink. The nearly universal response rate seen with larotrectinib is unprecedented." Additionally, because larotrectinib is selective in the cells it targets, side effect of treatments are reduced.

Once deemed the world's largest beach cleanup project by the United Nations, Afroz Shah led the thousands of volunteers who sought to remove the knee-deep piles of trash on Versova Beach in India to protect sea turtles who call the beach home. Shah was initially discouraged when he worked for two months by himself without any help, but when two men approached him one day and asked to borrow a pair of gloves so that they could root through the garbage, Shah says "That's when [he] knew it was going to be a success." Those two volunteers multiplied into thousands, who over time succeeded in removing enough trash that the Olive Ridley Turtle, an endangered species, could be spotted at the beach for the first time in decades. Volunteers slept on the beach to make sure nothing harmed them as they laid eggs. Shah truly witnessed the fruits of his labor when the eggs hatched and the turtles left for the sea: "I had tears in my eyes when I saw them walking towards the ocean."

As the price of education rises across the country, Taco Bell (of all places) has established a plan which would extend educational benefits to all 210,000 of their American employees, partnering with Guild Education as part of a pilot program. Frank Tucker, Global Chief People Officer at Taco Bell says that the initiative comes after an employee survey saw education benefits as one of the top requests: "The barriers to achieving their education goals were time, money and support. Our partnership with Guild delivers on all of these needs for our employees through access to online classes, financial aid guidance, tuition assistance and a personal counselor to support each student in real time." In addition to access to nonprofit online universities, high school diploma completion courses, and English-as-a-second-language courses, Taco Bell is offering employees the opportunity to claim up to \$5,250 each year. Employees now have access to education and chaluvas, so they are really living más.

Perhaps the most famous victim of climate change is the Great Barrier Reef in the Pacific Ocean, but with a film thinner than human hair, researchers believe they've found a way to protect the coral. Warmer oceans have led to coral bleaching, but this biodegradable calcium carbonate shield has been found to reduce sunlight on the coral by 30% simply by sitting as a film above the reef. While it is unlikely that a film large enough to cover the entire reef could be developed due to its sheer enormity, the hope is that especially at-risk areas could be protected from the sun and prevent the stress that causes coral bleaching. This is an important accomplishment because Australia is one of the largest consumers of greenhouse gases.

Let's continue to celebrate all of the achievements that contribute to making this a better world!

Project Graduation

By MILA RUSHKIN '20
Food Columnist

For many students, Graduation represents a portal into adulthood. As a marker of academic achievement and growth, it is thus a major milestone for young adults. Graduation is a day when seniors dress up in blue caps and gowns, ready to move onto the next phase of their lives. It's a time of celebration.

However, graduation at AB doesn't just stop at the ceremony: the festivities continue at Project Graduation. This post-graduation event is an all-night alcohol- and drug-free party exclusively for graduating seniors, held on the evening of graduation at the high school.

Project Graduation works for countless hours to bring the graduating class together one last time. This party is a huge undertaking with over two hundred parent volunteers and about \$30,000 in funds. Every year they have a special theme with which they completely transforms the school in only seven hours! The event includes activities such as a mechanical bull, a fondue bar, and even bouncy houses. Gift cards for local businesses, dorm room supplies, and even four \$500 scholarships are also given out.

Everybody is welcome to attend they can enjoy a safe graduation night! Tickets will be sold alongside prom tickets for only

\$20. Project Graduation is also promoting at Not Your Average Joe's on May 1st, 8th, 15th, 22nd, and 29th. If you mention Project Graduation, you get back 15% on dine-in and take-out orders, excluding alcohol. Other promotions include Roche Bros in which you can hand in your receipt to a Project Graduation volunteer. 10% of receipts collected from 4:30-7:30 pm and 10% of pre-purchased gift cards will be given to Project Graduation.

The organizers are also looking for upperclassmen who can be greeters for the fundraiser. If you need more information, you can visit the Project Graduation website. This party definitely will be an unforgettable experience that no senior should miss!

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News

Gun Control: A Plea From America

By SAM CHEN '20
Spectrum Staff

Gun control has captured the nation's attention. Following the Marjory Stoneman Douglas High School shooting, students across the United States rallied together in groups of thousands—if not millions. At ABRHS, calls for action manifested in the AB Walkout, organized by Mackenzie Cooper ('18) and Rachel Pryke ('18).

Before Stoneman Douglas, there was the Las Vegas shooting in October of 2017. The tragedy reinvigorated the calls for stricter gun control, but in Massachusetts, action has already begun. *The Huffington Post* explains that the state legislature has prohibited bump stocks, a gun accessory that allows shooters to fire rounds at significantly greater rates. As the first state to implement this ban, Massachusetts sets a precedent as to how such a law will be enforced. A similar bill was introduced on the national scale. However, *CNN* reported that until the recent resurgence of public fury after Parkland, the bump stock bill had stalled.

This inaction following Stoneman Douglas spurred walkouts in schools across the country, including ABRHS. Organized by Mackenzie Cooper ('18) and Rachel Pryke ('18), the ABRHS Walkout gave students an opportunity not only to pay their respects to the Parkland victims but to show their stance on gun reform. In a recent interview with *The Spectrum*, Cooper and Pryke explained the walkout's origin story: after the students RSVP'd to the national March For Our Lives, a movement created by survivors of the Stoneman Douglas shooting, Cooper and Pryke contacted each other and formed a Facebook group to gather interested friends. Cooper explained that it quickly blew up to "way more than [they] ever expected"; currently, the Facebook group has reached 615 members. The explosion of interest turned their thoughts into action; the Facebook group evolved into a school-wide walkout. Cooper stated that "there's power in numbers... The more people we get to join these walkouts, the more power it's going to have on Congress."

"A lot of people think that they're just one person. But if you think about it, we were just two people, and we created this huge thing that we never expected. And you have to think of the chain reaction that you as one person is gonna have," Pryke says. Each person tells their parents and friends, who tell their parents and friends, "so you are one person, but you're one person... that's part of a movement."

Cooper and Pryke also discussed the gun control as a whole. In response to the argument that limiting guns rights would lead to extreme action, Pryke countered, "we're not saying ban guns. That's what a lot of people automatically assume: they think there's a black and there's a white and there really isn't." She gave examples of alternatives to a complete ban on guns such as waiting periods and background checks. Cooper furthered that "there's no use for assault weapons... When the Second Amendment was made that stuff didn't exist... Assault weap-



AB students at the walkout showing their concern for gun violence.
David Tsitrin / Photographer

ons have no use in our society except killing a lot of people quickly. It's a military weapon." She argued that it doesn't serve the purpose of the Second Amendment: to defend yourself. Consequently, she concluded, "it's not taking away the right that was intended by the Second Amendment." Pryke also pointed out that potential gun buyers "have the right intentions... will [have] no problems" purchasing them; they will simply have to go through a longer process.

As a whole, the March For Our Lives movement is a fight against government inaction. Pryke pointed out that in the past, "the government [has looked] for a scapegoat. First it was mental illness, then it was violence in our video games and movies. I think that the government is going to keep looking for a scapegoat... We really need to break the stereotype that with mental illness, comes gun violence" and vice versa. "We need to start looking at them as separate issues for change" to truly occur, stating that "only 4-6% of gun violence committed is by a person that has mental illness." The other issue is the political aspect. Cooper explained how "a big problem is that the NRA is giving tons of money to politicians to get them to be pro-gun. At this point the NRA is just for the gun manufacturers, they're not about the people... They're not showing the viewpoints of the people; it's really about the people that make and sell the guns. That's really prevalent in the fact that no action is being done."

During the walkout, Pryke and Cooper delivered empowering speeches. Cooper began: "While this school shooting will be added to the list of countless other school shootings that have happened in this country over generations, it is not something we will ever forget. Nor will we forget everyone else

that has been lost due to gun violence. But we shouldn't have to be saying any of this. We shouldn't have to grieve anyone lost to gun violence because this... was preventable."

Pryke went on to list the seventeen victims of the Parkland shooting and called for a moment of silence. "After Sandy Hook, we did nothing. After Orlando, we did nothing. After Las Vegas, we did nothing. This pattern can not continue. It ends here. The students of AB are saying enough. The youth of America are saying enough," Cooper said. Finally, Cooper urged the crowd to "get involved in every way possible because this is your country too."

In the end, the walkout gathered over a thousand participants. The crowd included students from the high school, middle school, and parents from the community. AB students continued to show their support for gun control during the March for Our Lives protest in Boston on March 24th.

Regardless of political beliefs, the root of contention on the topic of gun control remains in the balance between public safety and individual rights. Liberals tend to justify their viewpoints by connecting gun rights with violence. Conservatives argue the importance of civil liberties; they worry that an overbearing government could destroy American liberties, starting with gun restrictions. The question remains as to whether gun accessories are distinct from owning guns—more importantly, whether gun control legislation truly conflicts with the Second Amendment. Across the United States, The March for Our Lives movement and school walkouts, have reconstructed the potential for change. As one of over twenty schools participating in Massachusetts, AB has found its place in this movement.



Student made sign declaring: "No more silence, end gun violence."
Anna Charisse / Photographer

Negative Competition

By SOMYA PRABHAKAR '19
Copy Editor

"How'd you do on the test?" This question is a familiar one—asked by students in every corner of AB, sometimes anxiously, other times smugly. Although teachers oppose grade-sharing, the conversation persists as students continue to measure their worth relative to those around them.

Due to the importance of grades in school, students often allow their report cards and how they compare with others guide them in their learning experience. However, Michael Grisafe of *Scientific American* says, "the grade game seems to have become a detrimental obsession in which students stress themselves to the point of getting sick." Mental health problems have emerged in schools across the country, stemming from the need to perform better than peers on assessments. Even though many high schools like AB have taken action against this growing epidemic, few have overhauled their grading system or addressed the side of the problem fed by competition.

In a survey sent out by *The Spectrum*, one student commented that "I share my grades when they're high in the hopes that they're better than those of my friends to validate that I've done well. When I don't share my grades, I'm afraid that my friends will know I did badly, which adds stress to the situation of earning a low grade." However, other stu-

dents said that they shared grades "to check if the teacher [made an] error" or "because it's fun." So, while some people do believe that grade sharing adds to stress, others take it as a social norm or a way to check any of the teacher's mistakes.

Moreover, the school's most visible method of reducing stress, no-homework holidays, seem to be working only for some. One respondent to the survey commented that "Non-homework days make stress worse by far; teachers have no choice but squeeze all the work into weekdays instead because they have an obligation to preserve the quality of our education... Weekends help because I can devote my time to my work so it is not as difficult during the week." Another student thinks that "they are good... they let me relax and sometimes get a head start on studying for the coming week." Although these students have mixed feelings on the homework-free holidays, both use the time to study instead of spending time in other areas of their lives.

While assessments are an integral part of the AB school system, they exert a pressure on most students, which leads to mental and physical illnesses. Despite AB's attempts to improve mental health, competition has seemed to have left many students comparing themselves to others. To address this problem in our community, we must take action to discourage grade-sharing and promote a healthier culture of caring for our own mental health.

New Superintendent

By MICHAEL CHENG '20
Spectrum Staff

The School Committee has chosen Massachusetts administrator Peter Light to become the next superintendent. Light, a Massachusetts native and Yale graduate with a masters in Music Performance, served his entire career in the Franklin school system; he started his career teaching music before moving into the administrative ranks. Later, he became the principal of Franklin High School for six years and most recently, Light served as the assistant superintendent. He has experience with all aspects of district administration, but he has never before been a superintendent.

Light was one among three candidates, including Weston High principal Anthony Parker, and a third finalist who dropped out due to personal considerations. Both finalists received generally positive reviews on their student oriented approach according to survey responses written by staff, students, and community members. Parker, an African American, was praised for promoting diversity and cultural awareness among not just students but also staff. In general, both finalists seemed supportive of the district's general direction. However, Light expressed curiosity about how the community viewed the relationship between student achievement and wellness. He stated that he viewed the two goals "not as an 'or' statement, but an 'and' statement." Light emphasized that working on wellness could help achievement, not hinder it, and that both should be achieved. Regarding a staff member's concerns about instability and low morale in the district, Light stressed stability and that there would be "cultural healing." He also stressed listening and trust, at one point, saying that the best

way to show that you're listening is to make change. As for when that change would take place, Light stated that he would spend much of his first year getting to know the community and building relationships as opposed to making immediate changes. He stressed putting the students first in any decision making, a position the School Committee shares. He also believes in providing a variety of courses, especially at the high school level. There were some concerns that Mr. Parker had never served in a central office and similar concerns that Mr. Light spent his entire career in one district. However, Light was seen overall as the more polished and knowledgeable candidate.

Light will likely be working with an \$89 million operating budget, a marked increase over the \$60 million at his disposal in Franklin, which has a student population size similar to AB. 80% of the expenses at ABRSD are allocated to staffing costs, which the teacher's union negotiates every three years.

Recently, some taxpayers have been displeased with the growing cost of education: the schools' annual budget has routinely exceeded 60% of Acton's overall tax revenue while many similar districts are closer to 50% committed to their schools. Nevertheless, for now, there seems to be little to no threat of the budget being rejected at town meetings, showing that the community's commitment and passion for education is still strong. Light noted that this commitment was one of the main factors that drew him to this district. These concerns regarding budget may become more of an issue, though, when the district requests an additional \$150 million bond issue to fund the construction of a new elementary school next year.

Growth

Role Models Around US (cont.)

By LIZETTE STA. MARIA '19
Spectrum Staff

"I try my best to embody the values and actions of a good student, and the kids that I mentor seem to be picking up on the actions that I do." Having role models is vital for growth as they demonstrate aspirational behaviors that people strive to attain. Mentors are especially important because they are the ones who actively work with you to unlock your full potential.

Imagine being stuck in a jungle, fenced in by vines and vegetation. You have a machete in hand, but it never occurs to you to use it to slash through the shrubbery to try to escape. The thought of clearing a path out of there is alien to you because you've never seen anyone do it before.

Albeit dramatic, this more or less describes the plight of marginalized people who do not see themselves represented doing great things in the world. Last year, the Cooperative Children's Book Center released statistics revealing the diversity gap in children's literature from 1994 to 2016. Within that twenty-three year span, only 11% of children's books contained multicultural content, and in 2016 alone, African American, Native American, and Latino authors combined

wrote 6% of the children's books published. In entertainment, television host Jeannie Mai, who co-hosts alongside a diverse panel of women on *The Real*, is only the third Asian American woman to be a regular on a daytime talk show. On the show's March 5th episode, Mai expressed her true thoughts on having this accolade: "When people say this, you feel like, 'Oh my gosh, I feel so honored.' No, y'all, I feel lonely. I want more of my sisters and brothers [in the entertainment industry]."

Luckily, some innovative and determined individuals are taking steps out of that secluded corner in the jungle that keeps marginalized communities boxed in. Radio producer Patty Rodriguez, for instance, started her very own bilingual publishing company called Lil' Libros after being told by an independent publisher that she was wasting her time trying to create books for Latino people, who, he claimed, don't even read to their children. As of June 2017, Lil' Libros has published nine books, and Rodriguez has since gone on to give a TEDx talk entitled "Why Our Children Need Role Models that Look Like Them." Further, CAPE, the Coalition of Asian Pacifics in Entertainment, produces its #IAM campaign every May to recognize the achieve-

ments of Asian American actors, dancers, bloggers, story-tellers, and game-changers.

As for the big screen, the highly successful Marvel movie *Black Panther* with its majority black cast that features women who wear their natural hair proudly is simultaneously groundbreaking and glass-ceiling-shattering. None of this would be possible without role models. In a 2013 Vogue interview, Lupita Nyong'o, who plays Nakia in the film, revealed what inspired her to become an actress: "What really did it for me was watching *The Color Purple*... when I saw Whoopi Goldberg, and she looked like me, I was like, 'I could do this.' I could do this for a living."

March 8th 2018 marked International Women's Day, a time for people all over the world to celebrate influential women in their lives and pay tribute to the ones who helped to shape them. Who better to honor than my mother? My hero, role model, and mentor all in one. While it does help that she looks like me too, what I really strive to embody is the confidently beautiful, fiercely intelligent woman she is inside. With her in mind, I know I'm following a trailblazer, not to walk in her exact footsteps, but so that I may be able to forge my own path one day.

Students' Growth

By SONALI RAI '20
Spectrum Staff

Sometimes we reflect on our past selves, either wincing at the people we used to be or simply feeling thankful that we have evolved. Interested in how others feel they have developed, I asked a few students for their thoughts on this matter. Most felt they had grown either mentally, academically, or physically.

At AB, adapting is essential. More often than not, things do not go as expected; bouncing back from such mishaps is extremely important. Thus, many find that their ability to respond to difficult situations has gradually improved throughout high school. Dora Xiao ('20) admits that, in her case, "motivation [was] the hardest 'mental capacity' to gain." As a freshman she found her hefty workload difficult to manage, but when she stopped "worrying over things [she] couldn't control or fix," Dora learned to pull herself together. Likewise, Sam Roughsedge ('21) feels that she has "definitely developed ways to deal with bigger problems [. . .] like stress or social issues." By doing so, she also gained "a lot more respect for [herself]." Both students demonstrated significant mental growth through motivation and self-respect. With these qualities, many often experience academic growth too.

Improving academically is a subjective matter; it can mean different things to different people. For some, it may be achieving better grades; others strive to improve their focus. Sarah Jin ('20) explains that in nearly a year, her "ability to take concise notes and not pro-

crastinate went through the roof." Because of this, Sarah mentions that class has become less stressful. Without procrastinating, she can focus on current assignments without worrying about put-off work. Further, she often has extra time left for other activities aside from schoolwork. More often than not, these extracurriculars have much to do with physical wellness.

A major part of many students' lives is physical activity. For many, maintaining proper health—and a spot on the school team—is as important as academics. Nearly everyone who spoke about physical growth mentioned training and exercise. Eileen Kou ('20), a setter for the ABVB team, states that because she "routinely exercised [her] legs, [she] is now able to jump much higher than last year." She continually "practices setting the ball by [herself] in [her] free time," making her sets even more precise this season. Similarly, Alpine Ski team member Emily Zhao ('20) improved her fitness by "training more and running a lot during dryland [conditioning]." Commitment to a sport cultivates both a sense of personal accomplishment and, as Emily says, makes one more "swole."

Everyone has developed during high school, whether mentally, academically, or physically. Though one may feel that he or she hasn't experienced much development, major growth is gradual. We're constantly thinking, rethinking, and taking in the world around us. All of that is progress. Everyone has different views on what it means to grow; let's be proud of our growth and who we've evolved to as people.

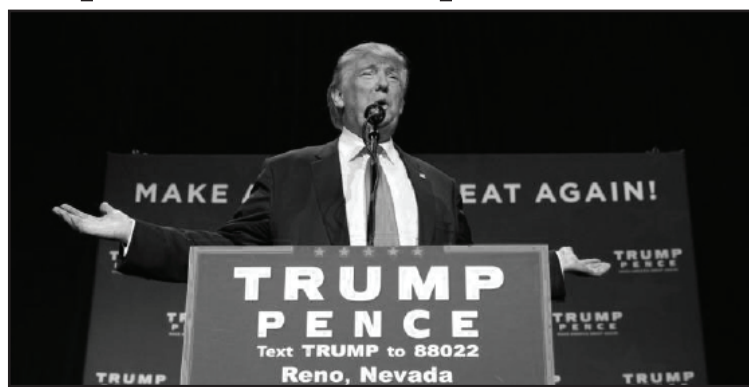
Donald Trump's Development

By SRIJA NAGIREDDY '19
Spectrum Staff

2017 was certainly a year of unexpected and explosive news. Every day seemed to bring up a new story, with one man at the center of it all: Donald Trump. His stances on issues have fluctuated since he assumed the presidency, causing some to interpret this as evidence of his evolution. However, he has not truly grown as a president; rather than changing his ideology, Trump has simply made shallow reversals on policies.

Trump made many promises on his campaign trail: his high-energy rallies resounded with chants of "Build the wall" and "Lock her up." However, life as a presidential candidate differs radically from life as the president, and promises are not always kept; Trump has left some of his campaign's major points unfulfilled. One example is his guarantee to repeal the Affordable Care Act, or Obamacare. Despite controlling both houses, Republicans failed to repeal Obamacare because senators within the party resisted their efforts. Unable to follow through with this promise, Trump has repeatedly attempted to undercut the act by limiting advertisement and ending the cost-share subsidies previously offered to insurance companies. Recently, the new tax plan has repealed the individual mandate, which will deny Americans easy access to insurance.

Another defining feature of Trump's campaign platform was his emphasis on immigration. Though the recent travel ban—an executive order from Trump—has gone into effect, his most distinct immigration promise remains unfulfilled. In his presidential announcement speech, Trump claimed he would "build a great, great wall on our southern border" and "have Mexico pay for that wall." This, along with Trump's infamous comments on Mexico—"They're bringing drugs,



President Donald Trump during his campaign.
ONLINE SOURCE

They're bringing crime. They're rapists. And some, I assume, are good people"—has sparked much outrage. However, there is no wall. The closest thing America has to a wall is a few prototypes standing in the desert. Because Trump's vision lacks a clear source of funding, this project seems unlikely to succeed. Yet, Trump still insists that he will build the wall. Retaining his anti-immigrant sentiment, he has cracked down on illegal immigration using other methods too by increasing the amount of power given to immigration enforcement officers. Additionally, the debate over the fate of DACA recipients under the Trump administration has reached a fever pitch. This debate will be one to watch in the coming weeks.

Donald Trump has consistently shown a clear desire to redefine the presidency himself. On many occasions, he has shocked many by disregarding precedent. While some of these things may seem minor, such as his failure to attend the White House Correspondents' dinner, they reveal a man largely unaffected by previous standards of conduct for presidents. Trump seems shockingly immune to scandals that would have toppled any other presidency. The allegations of Russian collusion within the election exemplify this. Not to be ignored either are the multiple sexual misconduct allegations that have

been brought against Trump. At least nineteen women have come out against him with allegations of harassment and assault. Trump has denied all of these allegations, but the troubling fact that our current president has been accused of sexual harassment remains.

Trump has no doubt changed as a president. Some would argue that he has toned down his message since assuming the presidency, adopting a more balanced agenda. Others, however, would argue that Trump has become even more radical, his presidency deeply dividing the nation. Regardless, it is clear that Trump has not grown as a president.

Tech and Growth

By NEHA VIJAY '21
Spectrum Staff

In 2001, Steve Jobs released the first iPod. His innovations were novel for his time. Since then, the technological landscape has changed immensely: new inventions such as smartphones, smartwatches, and other smart technologies have become increasingly popular. These innovations have rapidly changed how the world works and how we live. Though technological growth has largely improved the average American's life, these leaps and bounds certainly come with major drawbacks.

In just one generation, computers have become astoundingly efficient, communication systems incredibly intertwined, and medical treatments exceedingly effective. Through it all, these technologies have become even more accessible to the public. As stated in the Statistics Portal, in 1984, only 8% of American households owned a personal computer but, by 2010, the figure had increased to 77%. In the past, computers filled entire rooms, but today, the smallest computer's volume is one cubic millimeter. Computers have also developed into tablets and wearable technology. The 1970's computing concept called Moore's Law, which says that "the number of transistors per square inch doubles approximately every 18 months," reflects these advances in technology. There is debate surrounding whether this phenomenon will continue and its current relevance. According to Quartz Media, modern transistors, made of silicon—an element with an atomic size of about 0.2 transistors—measure fourteen nanometers across. Because of this, some consider Moore's Law obsolete as semi-

conductor technology, which helps control electricity, has evolved so rapidly that it may be approaching its limit. Therefore, we will not be able to progress as rapidly in technology as we did before. Some, however, argue that this law will endure because of nanotechnology. Nanotubes, a new type of semiconductor, have allowed us to take Moore's Law a step further. This technology was developed and studied to be applied to the medical field because, according to OMICS, nanotechnology can cure diseases like cancer and neurodegenerative disorders by using nanoparticles during drug delivery. Nanotube technology is so powerful that we feel confident placing human lives in its capable hands, so to speak.

With all these advantages in the growth of technology exist specific drawbacks. Distractions from the internet and social media plays a part in destroying productivity. Walking may have been rendered obsolete by technology: now, we can simply press a button on our phones to summon an Uber, leaving little room for exercise. And within fifteen years, a third of US jobs will allegedly be claimed by automation. For example, due to bills and information sent via the internet instead of by mail, post office are in slow decline. As technology has developed, we have also grown into a habit of avoiding face-to-face interactions with others thanks to constant phone and laptop use. According to CNBC, 87% of young people have ignored a conversation due to being distracted by their phones. On the other hand, the development of technology has actually helped to connect our world. Nowadays, we enjoy instant communication globally without having to travel.

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Growth

Fashion, Rap, and Glowing Up

By OLIVIA OLAYIWOLE '18
Spectrum Staff

In Drake's most recent album, *More Life*, the song "Glow," featuring Kanye West, opens with the lyrics "Watch out for me, I'm bound to glow." "Glowing" is often used to signify achieving success. The concept is widely discussed in rap music, with many hip hop and rap artists incorporating luxuries that indicate success such as Giuseppe Zanotti shoes, the Rolex watch, or Gucci belts. For example, Migos' song "Versace," named after well known Italian clothing brand, opens with the lyrics, "Versace, Versace, Medusa head on me like I'm 'luminati.'" Migos shows off their success using fashion brands, reflecting how rap has long maintained a connection with fashion; as a result, rappers often collaborate with designers.

Rap has had a strong connection to fashion since the genre's early days. In 1986, hip hop group Run-DMC released a song called "My Adidas." The song was a huge hit and earned them the very first endorsement deal in hip hop. The fashion industry became very involved in the rap industry, with designers like Dapper Dan and Karl Kani demonstrating this relationship clearly. Dapper Dan's work was worn by many rap artists such as LL Cool J, Salt-n-Pepa, and Eric B. & Rakim. His designs became synonymous with rap culture, having shaped the world's perception of rap. Karl Kani is considered to be the godfather of urban streetwear. Growing up in Brooklyn, his style was influenced by hip hop and street culture. He created the famous 90's baggy jean concept, and his brand was famously worn by Tupac, Aaliyah, and Biggie. Both of these fashion innovators

illustrate how fashion and hip hop depend on each other.

Eventually, many rappers took an interest in fashion, starting brands or collaborating with designers to produce a line. The first line created by a rapper or rap group was Wu-tang Clan's Wu Wear. Their line pioneered streetwear and is re-emerging through the work of Wu Tang Clan member RZA. Other artists such as Diddy started a brand called Sean John, a widely successful streetwear brand that influenced pop culture of the '90s and '00s and won him a CFDA award. Jay-Z was also able to create a successful brand called Rocawear that mostly produced sporty pieces. Today, we have Pharrell's Billionaire Boys Club and Kanye West's

Yeezy line, which are both essential brands to a streetwear-enthusiast's closet. Today, anyone who knows hip hop can associate it with the hottest trends in fashion. In turn, fashion often relies on hip hop to display new designs, as seen with Young Thug and his album, *Jeffery*. On the cover, he wears a dress by a designer for the VFFiles, Alessandro Trincone; when the dress was shown during 2017's New York Fashion Week, it received a lot of publicity.

Ever since, the two industries—fashion and hip hop—connected, they have become inseparable. It certainly is easy to see how both help each other grow and how both offer unique ways for artists to express themselves.



Fashion and rap are inseparable.
Grace Du / Layout Editor

Time's Up: Sexual Harassment

By SOMYA PRABHAKAR '19
Spectrum Staff

In October 5th, 2017, *The New York Times* published an article exposing Harvey Weinstein for decades of alleged sexual harassment against women in the entertainment industry. In the months following, dozens of women from countless backgrounds have spoken up, revealing their own experiences with sexual misconduct. The stories are long-suppressed, hidden by the fear which stems from the restrictive power dynamic between an actor and a producer or an illegal migrant worker and her citizen boss. While the accusations continue to pour in, one thing is clear: sexual harassment has grown into a deep-rooted problem in the United States, hidden by a fear of retaliation and the lack of women in positions of authority. Time's Up, a movement created by 300 celebrities, seeks to fight the systemic sexual harassment that has become prevalent in workplaces across the nation.

Following the *Times* article, over fifty women accused Weinstein of actions ranging from generally inappropriate behavior to rape. Like a chain reaction, legions of women stepped up to allege sexual misconduct against other well-known men like Matt Lauer, Dr. Larry Nassar, and Senator Al Franken. Suddenly, in a world where a man who bragged about sexual assault on tape had been inaugurated as president, women saw others with similar experiences begin to speak out and finally felt safe enough to

call out their own oppressors.

With the increased awareness of the sexual harassment problem came the realization that change was necessary but not inevitable. Time's Up unifies the powerful women of this era to give voice to the thousands of women who are unable to speak for themselves. In their open letter, the leaders of the movement speak for and to "every woman employed in agriculture who has to fend off unwanted sexual advances from her boss, every housekeeper who has tried to escape an assaultive guest, every janitor trapped nightly in a building with a predatory supervisor" and many others; they promise to support them and use their own platforms to help change the lives of every woman experiencing sexual misconduct in the workplace.

Aside from the open letter, Time's Up includes a legal defense fund backed by \$21 million in donations, which is administered by the National Women's Law Center to provide support for men and women who have experienced sexual assault. It manages groups that advocate for legislation against the toleration of persistent harassment and demand promises of gender parity from Hollywood businesses. It unifies many groups seeking rights for all minorities and addresses the negative effects of nondisclosure agreements on sexual misconduct. Most importantly, it provides a unified front for people of all backgrounds to seek help and take action. Time's Up displays such as the blackout at the Golden Globes

and the white roses at the Grammys help keep all eyes on the issue as the world moves forward.

Although Time's Up represents a reaction to a widely recognized social problem, it may be different from other movements in that it has set achievable goals and actually met some of them already. While gun control movements have fruitlessly fought for universal background checks and other safety laws for years and women continue to leave their jobs to care for families despite 1970s' second-wave feminism, the leaders of Time's Up ask for gender parity in the workplace and protections against harassment and have already received pledges from businesses in diverse industries. This movement is different because it manages groups with immensely different agendas and unifies them behind a single name that holds a more powerful influence than any one organization alone. By doing so, it has already brought about some of the change our society so desperately needs.

While sexual harassment has proved itself to be a huge problem, not enough is being done to create enforceable consequences and to give voice to women who fear for their careers and livelihoods. Time's Up is a step in the right direction for providing justice to the people experiencing sexual assault in the United States and beyond. Although there is still a long way to go, the movement to expose misconduct and generate change represents all we hope to achieve.

Mike Vick's Future

By DANIEL POULTON '19
Spectrum Staff

When the Atlanta Falcons selected Vick with the first pick in the 2001 draft, it appeared franchise-altering. Vick made the Pro Bowl roster every year between 2001 and 2006. He had the talent, the numbers, and a future. Vick was on top of the world, until he wasn't. In July 2007, following an infamous dogfighting scandal, he traded in his number seven uniform for a new number, 33765-183, as an inmate in federal prison.

Vick was sentenced to eighteen months in prison for his undercover dogfighting ring. Named "Bad Newz Kennels," Vick ran a coordinated operation resulting in extreme brutality. According to a report by a government investigator, his ring hung dogs from tree branches, "drowned approximately three dogs" by holding their heads in water, and slammed dogs onto the ground to break their bones. Clearly, Vick and his conspirators deserved every minute in prison that they received.

For Vick, prison was a wake-up

call. It all hit him when his grandmother passed away and he couldn't be there for his family. After 548 days behind bars, he was released early for good behavior. He returned to the NFL and played until 2017 when he announced his retirement, leaving the league as a famed talent who spent the prime of his career behind bars.

Still, the question remains: has Vick shown growth after serving his time? Many doubt that he is truly remorseful. However, Vick has made all the right moves since his release in 2009. He has repeatedly backed animal cruelty legislation and is a member of the Humane Society's anti-dogfighting movement. Regarding his activism, Vick says "I know that I'm an unlikely advocate [...] I was part of the problem. Now, my perspective can help reach people that activists can't reach. I can help others become agents of change."

Only Mike Vick can know whether he has truly matured. Growth is not something that can be publicly judged or evaluated. Rather, it is something profoundly personal. And perhaps that's okay.

The Patriots' Growth

Niraagi Shah '20
Spectrum Staff

An original member of the American Football League (AFL), the New England Patriots, formerly the Boston Patriots, joined the NFL in the 1970 merger of the two leagues. Now, in 2018, after ten Super Bowl appearances and five wins, the New England Patriots played the Philadelphia Eagles in Super Bowl LII, resulting in an Eagles' win. Through the past few decades, the Patriots have evolved and grown through their many wins and losses.

The Patriots struggled for most of their years in the AFL. They appeared in only one AFL championship game, lost to the San Diego Chargers, and did not appear in a postseason game for another thirteen years. When the NFL and the AFL merged in 1970, the Patriots moved to a new stadium in Foxborough, Massachusetts, which serves as their current home. Bill Belichick later became the Patriots' head coach and led them to eight Super Bowl appearances in the following years.

Soon after, a tackle out of bounds led to a life-threatening sheared blood vessel in then-quarterback Drew Bledsoe's chest. Current Patriots quarterback Tom Brady replaced him. Bledsoe eventually healed in late November of that season. However, Bill Belichick decided to stick with newcomer Tom Brady, despite only a 5-5 record. After this decision, the Patriots won their last six games, rolling into the playoffs. Though Bledsoe would have to get off the bench to rally the team to a victory over Pitts-

burgh, it was Brady who led them to a 20-17 win over the Rams. That was the first Super Bowl win between the Belichick-Brady tandem, with four more to come down the road. The Belichick-Brady dynamic soon became the most successful coach-player duo in NFL history.

However, the New England Patriots has had its share of controversies. The 2007 controversy, conveniently dubbed "SpyGate," refers to an incident in the 2007 season in which the league reprimanded the New England Patriots for videotaping the New York Jets' signals in an unauthorized spot. After an investigation by NFL commissioner Roger Goodell, head coach Bill Belichick was fined \$500,000 and the Patriots were fined \$250,000. In addition, the team was relieved of its first-round draft pick of the 2008 season. More recently, "DeflateGate" has caused major controversy involving players on the team, namely Tom Brady. This incident involved deliberately under-inflated footballs that were allegedly used in AFC Championship during the 2014-2015 season resulting in a Patriots win over the Indianapolis Colts. It ended with Brady being suspended for four games and the team being fined \$1 million with a loss of two draft picks.

The Patriots have grown and developed to become one of the strongest teams in the NFL. Even after a devastating loss in Super Bowl LII, the Patriots seem to have gotten past the storm and, though it won't be smooth sailing on here on out, Patriots fans remain hopeful for the next season.

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Forum

The Debate on Net Neutrality

By BEN ORR '21
Spectrum Staff

"Net neutrality" has made recent headlines following the FCC's decision to repeal the freedom of an open internet. From its small beginning in the 1960s, the internet has grown into a vast world of information and connection. It now allows us to share our views and to talk with people sitting halfway across the world. It is a revolutionary and accessible invention that our society depends on.

The concept of "net neutrality" began in 2003, stating that the internet was free and not to be owned or used for profit. In 2005, the FCC, or Federal Communications Bureau, fined an internet service provider that was not allowing its users to use services from their competition. Three months later, the Supreme Court confirmed that cable internet access was to be unregulated. Just months afterwards, AT&T's CEO spoke up, saying that he planned to charge successful websites so that customers could enjoy faster a connection to them.

After a number of other large companies also acted against Net Neutrality for profit, the FCC stepped in again in 2010, preserving the Open Internet rules. Then, in 2012, AT&T blocked FaceTime on all of its users' devices, forcing them into a more expensive plan. Although this would later be taken down, it foreshadowed what was to come in the near future.

This brings us to 2017, when Ajit Pai and two other FCC members voted for the repeal of the Net Neutrality bill. This bill will affect not only consumers but growing small businesses that cannot afford additional charges for their websites to be accessible.

Purposeful throttling of web connections allows cable companies to affect their clientele. Although only small businesses and other independent websites will be forced to pay more, cable companies will use potential customers as pawns—impacting every internet user.

Website owners are forced to pay an additional amount for a server to host their website. Now, they may be forced to pay a larger sum of money each month to keep

their website accessible because Verizon is threatening to slow its website down for all of its customers. With this extra payment, independent businesses will need to find new ways to make money from their sites. They might be tempted to fill their pages with advertisements. They might have to start charging the people who have made accounts on their sites as well. All of this will have a negative effect on customers and could potentially lower companies' profits.

Although net neutrality's repeal is scheduled to take effect April 23rd, Congress has yet to vote on it. The vast majority of Republicans are ready to vote for the repeal, while almost all Democratic members of Congress are against it. Because of how little traction the fight for the open internet gained before the FCC voted, few people were aware of Net Neutrality when the FCC's vote was cast. Now, net neutrality is in the hands of our representatives, and there is very little that residents can do to combat the repeal. We may very well soon live in a future where we pay for our spot online.

AB Runs on Dunkin'

By MILA RUSHKIN '20
Food Columnist

While walking down the halls of school, you are bound to spot students with their Dunkin' cups. About 83.2 % of high schoolers drink coffee regularly. While living in Massachusetts, that means going to "Dunkin" everyday. One particular question has long drawn my attention: what makes Dunkin Donuts so popular?

Dunkin' Donuts was founded by William Rosenberg around 1950 in Quincy, Massachusetts. Rosenberg's main goal was to "make and serve the freshest, most delicious coffee and donuts quickly and courteously in modern, well-merchandised stores." His business skyrocketed in the next few decades, and soon, he was opening chain restaurants all over the United States and other countries around the world. Now, Dunkin' sells approximately 1.9 billion cups of iced and hot coffee daily.

Dunkin Donuts' popularity was not so easy to gain. Having competitors like Starbucks and Krispy Kreme made it harder to become customers' top choice. However, Dunkin's ability to maintain customer loyalty and reach a younger demographic has made it easier to climb to the top. The Dunkin' app has allowed customers to order while on-the-go and gain points in doing so; overall, this is far more convenient than ordering in person.

Dunkin's wide variety of customers includes both newcomers and people who have been loyal to them for years. Whatever the case, Dunkin' always seems to have people coming back for more. One of the main reasons for Dunkin's popularity is its prices, including the extremely low costs for a Cup o' Joe or a box of munchkins. You have most probably heard the phrase "America runs on Dunkin'." This catchy slogan appears in commercials on almost every T.V. channel, leaving the name "Dunkin' Donuts" stuck in many heads. The overall culture of New England has been shaped by this well known coffee chain. I doubt you could meet someone from Massachusetts who hasn't been to Dunkin' Donuts at least once in their life!

As for the coffee, people either love it or hate it. Many people who oppose Dunkin's coffee say that there are far too few flavors, but they are wrong: Dunkin actually boasts a variety of flavors, all free of charge unlike other coffee shops! Another perk to Dunkin' is their donuts. Their donuts and munchkins are a huge hit and have everybody leaving with a smile on their face. These almost-addictive baked goods are a perfect complement to the coffee as well.

Over the last seven decades, Dunkin' has slowly integrated itself into the lives of millions of people. It has become an essential part of our morning routines here in the Northeast.

The Effects of Cryptocurrency

By EMMIE OHNUKI '19
Spectrum Staff

Over the past few months, the media has been buzzing about Bitcoin. Bitcoin is the first of many cryptocurrencies, created anonymously under the pseudonym of Satoshi Nakamoto. Like all cryptocurrencies, it is a decentralized, virtual currency run by investors' transactions. Instead of being government-controlled, it is regulated by code and "peer-to-peer networks." Bitcoin's anonymity, open-source nature, and usability have attracted billions of users from around the world. One unit's average value is estimated to be roughly \$9,000 - \$10,000. Despite the Bitcoin market's constant price changes, prices can skyrocket, inevitably creating "Bitcoin millionaires."

For those interested in getting involved, there are multiple ways in which one can obtain a Bitcoin. Online "Bitcoin exchanges" allow users to buy Bitcoin using other currencies. Similar to digital money exchanges, Bitcoins are traded and stored on computers. People can obtain and even create a Bitcoin through "mining," a complex process that is considered the most original way to obtain a Bitcoin. According to *The Economist*, users mine computers to collect a "block" of pending bitcoin transactions and to convert it into a mathematical

puzzle, which miners are challenged to solve. The first miner to find the solution shares it with the bitcoin network, where other miners determine whether he or she is correct. If the majority agrees, then the block is added to the blockchain and miners move on to the next "block" of transactions. The miner who solved the problem receives twenty-five bitcoins after another ninety-nine blocks are added to the chain.

However, there is wide debate over whether Bitcoin should be used. Bitcoin users can keep their identities anonymous despite each transaction being recorded, thus allowing illegal transactions like online drug sales and ransom payments. On the other hand, Bitcoin has benefited many people and countries economically. "Venture capitalists invested more than \$1 billion into at least 729 Bitcoin companies which created thousands of jobs," writes Marc Bevand in his blog post, "Bitcoin Mining is Not Wasteful." Another important issue that many are not aware of is energy.

A Bitcoin system requires a huge sum of energy. To solve these mathematical problems, miners must use a series of complex computer calculations. Chris Mooney and Steven Mufson from *The Washington Post* point out that the increasing popularity of blockchain results in more and more complex math problems—creating the necessity for

higher power computers and more energy to perform calculations. According to *New York Times* writer Nathaniel Popper, "the computer power needed to create each digital token consumes at least as much electricity as the average American household burns through in two years." He goes on to write that "[t]he total network of computers plugged into the Bitcoin network consumes as much energy each day as some medium-size countries." Eric Gimon from *Forbes* speculates that cryptocurrencies will have plenty of room for growth without "eating the world" as long as they stay below 19% growth per year. Gimone further notes that "[b]itcoin mining currently thrives on cheap electricity from power plants which have lost customers, like hydropower and coal plants," however, "on its current trajectory Bitcoin will require new power plants or compete with electricity consumers where miners have ready access to transmission."

Claire Henly, currently a manager at RMI, suggests two possible solutions: changing Bitcoin's protocols or switching to a less energy-consuming cryptocurrency. As Bitcoin is significantly decentralized and therefore difficult to change, she suggests a different, slightly more centralized currency called Ethereum, whose leader is actively trying to improve the system's energy efficiency.

Bitcoin's future is highly unpredictable. Its exponentially increasing popularity is undeniable, but it seems that the path of bitcoin specifically may lead to a highly unnecessary amount of precious energy loss that will contribute to global warming. With hundreds of other cryptocurrencies on the market, such as Ethereum, that have room for improvement, it is possible that there may be a better alternative to Bitcoin that provides investors with the same benefits as before. Although the future of the world of digital currency is yet to be known, it is evident that it will only grow larger and larger—inevitably becoming a major part of our economy.

Wakanda Forever

By MICHELLE GONG '21
Spectrum Staff

Millions of Marvel fans are counting down the days to April 27th, when their favorite superheroes will finally come together in *Avengers: Infinity War*. Others might be excited to have the spotlight on the Wasp in *Ant-Man 2* coming to theaters in June. However, *Black Panther* was arguably the most popular movie of the year, selling more tickets than other Marvel movies within the first twenty-four hours.

By the end of *Captain America: Civil War*, many enjoyed seeing their favorite superheroes like Iron Man and the new Spider Man, but meeting Chadwick Boseman as T'Challa, the king of an African kingdom, Wakanda, was a definite highlight. The film takes place after the events of *Captain America: Civil War*. T'Challa returns to Wakanda to claim his throne but finds an enemy threatening his country and the entire world. Suffice to say, it seems like any other superhero movie at first blush.

But to many, *Black Panther* is a milestone in Marvel history. As the first Marvel movie starring an African hero along with a majority black cast, Ryan Coogler disregarded common stereotypes when directing the film. In fact, according to *TIME*, "It's a movie about what it means to be black in both America and Africa—and, more broadly, in the world." Just as the real world tends to perceive Africa as a land suffering from poverty, the fictional world in *Black Panther* perceives Wakanda in a similar light. Yet, in reality, because of its access to a valuable rare metal called vibranium, Wakanda's technology is decades ahead of everyone else's.

In other Marvel movies, heroes generally stop villains, causing much destruction in the process. In *Black Panther*, though, T'Challa focuses on

how Wakanda's resources can help others. Coogler thus portrays Wakanda as a peacemaker between nations. Moreover, unlike in other Marvel movies, some of the fiercest fighters of *Black Panther* are in T'Challa's all-female royal guard.

Though this Marvel movie already boasts spectacular fight scenes, the subtle, underlying messages and slightly controversial themes easily trump any combat sequences. Wakanda has access to vastly advanced technology, but it never lost its culture. Instead, it struck a fine balance between the two, allowing it to flourish beyond other societies. Essentially, the movie is about embracing the past but not letting it influence the future. The film touched upon whether minorities should be given the opportunity to dominate over their past oppressors. Yet, the central idea of whether wealthy, developed countries are obligated to share their resources with others or whether they should focus on protecting their own people drove the plot and put forth an idea not commonly addressed.

As for what *Black Panther* stands for in our culture, it's clear that the movie industry is changing. It's adapting to modern views and perspectives to include more diversity in both the cast and targeted audience. *Black Panther* is a major step away from past films of mainly white and male casts. Hopefully, others will recognize the shift and continue the growth trend to appropriately reflect our evolving society.

Many who have already seen it claimed it was "a different kind of superhero movie." It still had the action, but it included unique moments of serenity, beauty, and clarity. Even those who don't enjoy Marvel movies will believe that the message that *Black Panther* sends was worth the \$10. If not, Kendrick Lamar's soundtrack will definitely make up for it.



Bitcoin has become a well-known presence in the current economy.

Kaitlyn Chen / Layout Editor

Forum

The Best Spider-Man

By MICHELLE GONG '21
Spectrum Staff

Over the past two decades, *Spider-Man* became perhaps one of the most popular Marvel superheroes. Since his first appearance in a comic book in 1962, Peter Parker has been portrayed in six different movies and by three different actors. This of course meant that some movies were successes, while others were complete flops. For many, the success of the *Spider-Man* movies depended on the actors that portrayed him, sparking a debate on which Spider-Man, Tobey Maguire, Andrew Garfield, or Tom Holland, was the best.

In May 2002, *Spider-Man* starred Tobey Maguire as the famous webslinger. The audience sees Peter's evolution into Spider-Man following a spider bite that gave him his abilities. His uncle's death also inspired him to take action against criminals. After the success of the first film, Tobey Maguire filmed two other movies: *Spider-Man 2* and *Spider-Man 3*. A fourth sequel was scheduled to be released in 2011, but the *Spider-Man* films were rebooted with a new director and cast.

Five years after *Spider-Man 3*, Peter Parker returned to the big screen, this time portrayed by Andrew Garfield. Renamed *The Amazing Spider-Man*, this movie also focuses on Spider-Man's origin story. However, this time, his love interest is Gwen Stacy, not Mary Jane Watson. Andrew Garfield also starred in the sequel, *The Amazing Spider-Man 2*, but after multiple negative reviews and poor performance in the box office, there was no third movie.

Other *Spider-Man* film adaptations were not expected, but after Tom Holland debuted in his role

as Spider-Man in *Captain America: Civil War*, fans were ecstatic when Marvel announced that he would return in his own movie, *Spider-Man: Homecoming*, the following summer. This time, audiences did not have to suffer through another spider bite and realization that "with great power comes great responsibility." In addition, Peter does not crush on Mary Jane or Gwen, but on Liz Allen.

Though determining which Spider-Man is best when considering the original comics is a matter of opinion, I believe Tom Holland wins. He is twenty-one, closer to the age of fifteen-year-old Peter Parker than Maguire and Garfield, who were twenty-six and twenty-eight respectively when filming. However, in the comics, Peter met Mary Jane and Gwen in college, not high school. But he did have a crush on Liz. In my opinion, Tom Holland embraced both Peter Parker's nerdiness and geekiness through his sarcasm, whereas Maguire did better as Peter than Spidey and vice versa for Garfield. However, Tobey Maguire's Spider-Man is considered to have drawn many people in to the franchise and to have made Spider-Man a favorite superhero for the past decade. Besides small errors, like his web composition, which angered many fans, the movie was quite accurate. On the other hand, less can be said about Andrew Garfield's portrayal in his *Spider-Man* movies: critics complain that these adaptations lacked a compelling and understandable plot and included too many villains without enough explanation.

No matter your stance, the only Spider-Man you will be seeing in cinemas, as of 2018, is Tom Holland, who will reappear in *Avengers: Infinity War* on April 27th.

Dangers of Sleep Deprivation

By PAOLINA GARRO '21
Spectrum Staff

It's common knowledge that students tend to procrastinate causing them to finish their homework late at night. We constantly hear adults warn us about staying up late, but we ignore it. However, after many nights of research and a few cups of coffee, I finally realized that, even though I too procrastinate and lose sleep, this lifestyle is not worth the consequences. A lack of sleep can cause serious changes in your emotions, creating issues such as depression. Considering the ample evidence that shows the negative effects of a lack of sleep, it's odd that students still do not sleep enough.

Teenage years are a stage of growth and development, meaning that teenagers actually need more sleep than adults. Your parents might go to sleep late, but that does not mean that you should too! Most of us know from health class that the average teen needs about eight to ten hours of sleep each night to feel alert and well-rested. But it's apparent that most students do not receive this much sleep—one study found that only 15% reported sleeping 8.5 hours on school nights. Students tend to have busy schedules with homework, studying, and extracurricular activities. Procrastination only worsens the situation.

Overall, the sleep patterns of teenagers vary based on their social lives. Let's say you get off your bus at three o'clock right after school. You get to your house, eat a snack, and go to your room. By now, it's probably 3:15. You start doing your homework quickly since you have softball practice at seven. Let's also say that dinner

will take you half an hour to eat. So in total, you have 3.5 hours to do your homework. That's more than enough time to complete your homework or, at least, a good chunk of it. But most of us end up either going on our phones or playing with our beloved pets and ultimately end up getting to bed late. However, a number of students make an effort to better manage their time: for example, many download apps that allow them to monitor the time spent on homework versus the time spent on their phones. Even this small step makes a difference.

Not getting enough sleep can be damaging both mentally and physically. According to recent studies, lacking sleep limits your ability to learn, listen, concentrate, and solve problems. When a lack of sleep becomes a daily problem, it will cause more drastic issues like forgetting important information such as names, numbers, your homework, or a date. The physical consequences

include pimples, which is one of the reasons why teenagers tend to develop more acne than other age groups. The side effects of sleep deprivation can also be incredibly serious: lack of sleep increases the likelihood that teens will suffer the consequences, including drowsy-driving incidents, anxiety, and depression, the latter probably leading to thoughts of suicide and even suicide attempts.

Finding a solution to the lack of sleep can be difficult, but one possibility is quite simple: changing your schedule to have more free-time. School counselors encourage afterschool activities to improve social skills, but if that affects your school grades and causes you to sleep less, then it might be better if you drop some. Finding ways to encourage yourself to do work instead of procrastinating can also help. Just remember that sometimes skipping community service once per week is okay. Don't worry, the retirement homes will understand.

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The Advantages of Artificial Intelligence in Healthcare

By GRACE GONG '19
Spectrum Staff

Nineteenth century literature, such as Mary Shelley's *Frankenstein* and Edgar Allan Poe's "The Unparalleled Adventure of One Hans Pfaall," foreshadowed the limitless capabilities of artificial beings. These works are considered pieces of fiction; however, when a group of attendees at a Dartmouth College workshop discovered and defined artificial intelligence (AI) in 1956, these stories came one step closer to reality. During the workshop, the group created computer programs that could defeat professional checkers players, solve algebraic word problems, and even speak English. Today, artificial intelligence, the development of computer systems able to perform tasks that normally require human intelligence, remains a controversial topic. Those who fear it worry about a future dominated by AI, while those who support it dream of a future revolutionized by technology.

Even before AI was discovered, tests to determine the capabilities of machines already existed. For example, the famous Turing test determined whether certain robots could converse successfully with humans. The rules were as follows: a human judge was instructed to chat online with either a robot or a human, and if the judge failed to determine which was which, the

computing system passed the test. Although such trials managed to test one aspect of computer capabilities, they failed to test the machine as a whole. Because modern computing systems have increased in complexity, one-dimensional tests are rendered futile. However, studies like the Turing test set an encouraging benchmark for the constantly-improving AI technology today. AI may even reach a point at which robots will be able to perform tasks exactly like humans, if not better.

Despite AI's potential, many people have their doubts. But to their credit, their hesitation is warranted. The idea of robots having the capability to mimic human activity is, admittedly, scary. Some believe that robots will take over the workforce, leaving many people unemployed. According to James Vincent, a writer for *The Verge*, automation will threaten eight hundred million jobs worldwide by 2030. Some fear for creativity because they believe that robots—unlike humans—cannot create new, abstract ideas. These people argue that automation will bring a lack of innovation and therefore, a lack of growth and advancement for humans. Even Elon Musk, the CEO of SpaceX and Tesla, thinks that AI will one day develop evil intent and fears for humanity.

Although some see a potential danger in the use of AI, they should not worry. James Surow-

iecki from *Wired* explains that there is no evidence of AI causing a loss of jobs, despite the growing automation industry. Moreover, he argues that not only is AI not taking jobs, but it is creating them instead. The automation industry, growing by 3.5% for the past three years, has created millions of occupations. Additionally, *Live Science* asserts that AI is thwarted by weaknesses and limits even without human intervention. Humans created AI, meaning they also control its potential. So, there is no way for AI to "turn evil." There is no doubt that it brings countless benefits and groundbreaking developments.

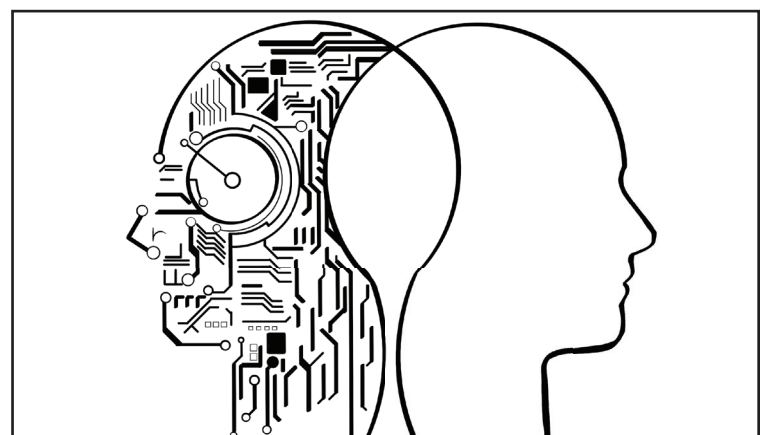
Whereas weaker AI may solve seemingly complex phenomena such as advanced calculus, strong AI could potentially excel at something that is difficult for even the most talented humans: perfecting healthcare. The artificially-created bionic hand is just one example of AI benefitting lives. Sensors in the computer can connect to neurons extending throughout the body so that the hand may perform like a healthy one. Those who use prosthetic body parts could experience and interact with the world in a completely new way. Moreover, AI has the potential for extremely accurate diagnoses. Baymax, a robot presented in the famous Disney movie *Big Hero 6*, encapsulates the idea of a machine able to diagnose someone accurately based on symptoms. When picking up and

processing what a potentially-ill person is experiencing, a machine can recall knowledge on thousands of possible diseases or conditions related to the manifested symptoms, give the correct diagnosis, and determine the best course of treatment. As computers have more computing power than humans do, the improved accuracy could save millions of lives from misdiagnosis. Moreover, AI is already improving surgical techniques: machines all over the world are used to perform surgical procedures that require the utmost caution and care. *Medlineplus* from the National Health Society on Medicine explains that "The small, precise movements that are possible with this [computer controlled surgery] give it some advantages over standard techniques." Furthermore, several different kinds of surgery have already

been performed by AI-controlled machines. These include gallbladder removal, hip replacements, and even coronary artery bypasses.

Not only can AI complete surgeries, but it can also find cures to previously incurable disease. As AI is able to experiment and think more like a human, it will become capable of drug testing, research and data analysis, and developing cures for diseases previously thought incurable. With AI advancements, the possibility of finding solutions to late-stage cancer, Alzheimer's, and diabetes seems within reach.

Ultimately, artificial intelligence is capable of far more than humans. Through its implementation, humans will continue to advance in technology and to develop solutions to difficult issues such as healthcare.



The growing capabilities of artificial intelligence.
Jackie Sater / Spectrum Staff

Off Topic

Trump's Report Card

By DIVYASRI KRISHNAN '21
Spectrum Staff

Student: Trump, Donald John
Class: Presidency 101
Year Grade: D (63%)
Unexcused Absences: 95 days spent golfing, according to CNN

See Me Please!

Subject:	Comments:
Foreign Policy: D	Struggles to get along with other students (calls Kim Jong-un "Little Rocket Man" and threatens preemptive military action). Refuses to use his words or say sorry. Continuously tries to build walls between himself and others. Does not show maturity in communication.
Legislature: D-	Plans for upcoming projects are somewhat hypocritical. Developed a trillion dollar infrastructure plan to cut spending on rail systems despite recent Amtrak derailments. Healthcare plan only saves the millennials and the wealthy money; older and poorer Americans will see higher premiums and lower tax credits. Has talent for intensifying the problem and avoiding the solution.
Leadership: F	Poor leadership in group activities. Continues to tax Puerto Rico and to withhold necessary help; 35% of Puerto Rican citizens still without electricity and half a million houses in need of repair. Fails to grasp the magnitude of certain problems. Biased towards certain friends; needs to equalize responses to Texas and Puerto Rico.
Popularity: C	Mixed popularity. Attracts like-minded students. Sometimes has inflated view of his popularity while he only has a 37% approval rating. Needs to understand and listen to opposition and criticism better. Largely FOX-centric point of view.

How to Make Bank Without Fail

By RITIKA KOIRALA '20
Publicity & Finance

Some people want world peace. Others just want money—no judgment there. Who wouldn't want to live among the top 1% and enjoy some salted caramel mocha on the daily? With the following steps, I can guarantee you more zeroes at the end of your bank balance than you ever thought possible.

Save Up Your Gold Bars: This might seem a little old fashioned, but by putting your gold bars into a vault on an isolated island, you'll have enough money saved up to buy the moon in no time. Now all you have to do is go out and find some gold bars... It shouldn't be too difficult.

Investing: It's never too early to invest! Contrary to popular belief, there is actually little to no risk when investing. What Great Depression? In fact, many would agree that the stock market crash was all a conspiracy that the government perpetuated to regain its control over the nation—but I digress. Don't just follow the masses: simply investing in developing technology and prime real estate is a mistake. Instead, you should invest in something truly valuable that will change the world. Something like my rap career.

Sell all of your possessions: Look around you. Observe all the useless items that clutter your home. We all have things around our house that we never use anymore—sell everything. For instance, why let that mountain of clothes that haven't fit you since



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elementary school grow, when you can sell them? By selling these possessions, not only can you make money, but you can also get rid of things you were too lazy to throw away, like your old jacket or your appendix.

Start A Business: Becoming an entrepreneur is not as hard as it seems. First, you need a product. Then, you need to find billionaires willing to invest in your product. Finally, you get rich. Simple as that.

Become a Social Media Influencer: Not everyone can become Jake Paul; not everyone can be a part of Team 10. But anyone can create a career out of vlogging. Just remember: there are two paths you can take to reach Mark Zuckerberg's status, creating a multi-billion dollar social media company or posting videos about your morning routine.

Go Viral: Everyone dreams of going viral on the internet, but only a select few can actually do it. It's not

always easy to meme-ify yourself, but you can do it with just a little work. I recommend hiring someone to follow you around with a camera so they can thoroughly document your worst moments. You will end up with ample high quality memes. Once your meme has reached virality, you must milk your newfound fame. No one stays viral forever, so take every chance you can to exploit yourself and the people around you.

Put in the Work: This requires a lot of time and effort, so don't choose this path.

As a rapper, multi-millionaire, elite investor, and habitual liar, I can confidently say that, by following these tips, you too can swim in your own chocolate ocean with golden dolphins and diamond sea turtles. Don't give up, and don't forget that your appendix is your most useless body part. The black market awaits you.

Big Bang Support

By SIENA BROLIN '20
Spectrum Staff

Woven between the beloved comedies and captivating dramas on television is a breed of the most mediocre shows, clogging up the On Demand ads with their cliché characters and their slight-exhale-out-of-the-nose jokes. We see advertisements for new seasons, and we think to ourselves, "No one watches these shows on purpose, right?" Wrong. Unfortunately, there is a select demographic keeping these shows alive by giving them viewership, media presence, and even a few full-volume laughs. These people live among us. Sometimes, they are even the people we love.

We want our loved ones to live their best lives and to spend their time wisely, enjoying real comedy. This can make it understandably difficult to watch them smile and laugh at shows like CBS's *The Big Bang Theory*.

It is for this reason that forty-year-old Bill Macon founded Big Bang Support, a support group for long-time fans of the show who are seeking a second chance at humor. Upon talking to Bill about his motivation for creating the support group, we learned that he, too, used to suffer in this way. "We can't look down on these people," Bill says. He continues, "They might be in a rough place, but they need our help, not our criticism. Trust me. I know...I just want people to know

that it's not too late." Bill was lucky enough to come to his senses and quit watching the show with the help of a few close friends. Once he saw the light, he decided that he wanted to make it easier for others to reach this same revelation.

To learn more about this group's impact, we interviewed a few more attendees. Thirty-one-year-old Terry says he was just flipping through channels late at night when the television landed on CBS. He recognized *The Big Bang Theory* immediately from its excessive laugh track but, for some reason, he did not change the channel. Approximately eight minutes into the show, he realized he could not stop watching: "I couldn't believe it. Here's this infamously terrible sitcom, and I was really, genuinely laughing. Before I knew it, it was two in the morning." He shook his head in shame as he recounted the events. Terry's story is not uncommon. By attending Big Bang Support, Terry, like many others, has learned that he is not alone.

Many people benefit from this support group every day. Plans for international branches are already in the works; hopefully, people all over the world will have access to this type of support group one day. If you or a loved one is spending countless precious seconds watching these worthless television programs, do not hesitate to seek help. There is always hope for a new beginning.



Making Hearts Go Bloom-Bloom

By JACK OLSON '18
The Love Doctor

Hi, I'm nervous to ask you this but, um, how do you get someone to fall out of love with you? I know you're supposed to help people find love and all, but I really need help. Thanks baby boo!

I have a few simple pieces of advice for you, my curious little caterpillar! 1. Do not shower... smell is arguably the most important factor in loving someone, so if you smell horribly, then yippee! 2. Chew with your mouth open... *nothing* is more *appalling* than seeing yucky, moist food inside of someone's mouth. So, if you show your lover that you have yucky food in your mouth, they will never want to kiss you again, and they won't love you anymore! Last but not least, step 3. Straight up tell them they're

too short... that one's like pretty self explanatory. Love ya, my cutie.

I'm in love with this boy whom I have a thing with, but my problem is that I don't know if I should keep him around because he's so smelly and greasy. Most importantly, he's cheated on people before. Do I stay, or not?

Do I need to answer this? Michael Xu, my superior and editor, do I have to? The answer is so obvious, so clear, better yet, crystal clear, so plain to see, so evident, so apparent, so distinct, so noticeable, so unmissable, so perceptible, so visible, so discernible, so unmistakable, so indisputable, so incontrovertible, so undeniable, so beyond doubt, so beyond question, and as clear as day: YES BABE! Next time you submit a question, think it over. XOXO *red lip emoji, winky face emoji, peach emoji, snake emoji.*

Should I break up with my significant other before college?

Wow. A tough last question, indeed! Dare I give the simple answer of "yes?" Yeah, I do. Let me explain, though! College is a place of discovery: students find themselves in the wild world that college is said to be—I don't know because I'm not there yet. If, god forbid, someone in your quiet, little hometown was holding you back, so you couldn't fully get to know others, you would be so sad. Ugh... I hate when people are sad. Anyways, maybe breaking up is extreme: just "zip-coding" with your significant other is perhaps the way to go. Then you never have to cut off ties completely. College is so sad, my sweet children; please prepare yourselves now, when you are young, for this huge transition because I am not ready.

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