

KUNESTONE

April 2021 Vol. 6



Editor-in-Chief Izzy He	Editors Remy Commisso Olivia Harkin Sophia Izzo Louis Lemperlé Meg Pardee Vinay Pendri Abby Schwartzman Angel Tang Ellie VanHouten David Wang	Design Ahmed Shah David Wang	Staff Writers Grace Bennett Remy Commisso Sophia Izzo Louis Lemperlé Yasmeen Rifai Ahmed Shah Angel Tang Ellie VanHouten Piper Wilson	Advisors Mrs. Curtis Mrs. Muoio
Design Editor Trunee Hsu		Logo/Cover Art Diane Nguyen		

ABOUT THE EDITION

Letter from the Editor

Dear Reader,

Welcome to *The Runestone's* 6th edition. Having lived in Rochester, NY, my entire life, I find it easy to remain sheltered from the happenings of our ever-changing world. As a result, I am very thankful for the enlightening power of words.

The Runestone has always served to be a carrier of student voices, and, in its pages, I hope you will find a perspective that makes you think—even if you may not agree. From the increasing impact of tech on our daily lives to a TedX event being hosted by our very own high school, please enjoy the beauty of a student-run publication.

We are very grateful for your continued support.

~Izzy He

pmhsnewspaper@gmail.com

TABLE OF CONTENTS:

COVID-19:

Is Technology a Force for Evil? 7
Hate Zoom Wednesdays? Here's Why..... 11

MENDON MOMENTS:

A New Arrival..... 5

OPINION:

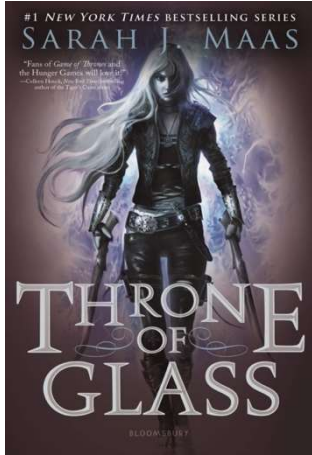
Book Recs 3
An Overwhelming Crisis in Lebanon 8
Stop Asian Hate..... 9
The Power of Scent..... 13



Book Recs

By Grace Bennett, Ahmed Shah, & Piper Wilson

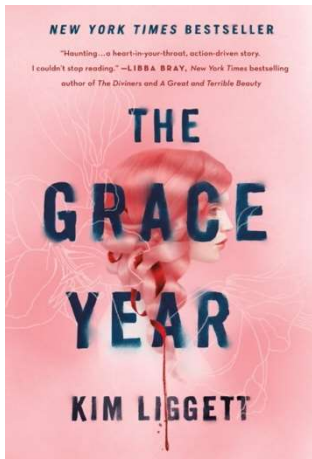
Fantasy:



Throne of Glass by Sarah J. Maas

Magic. Death. Blood. Assassins. This book has it all. A young assassin, Celaena Sardothien, is pulled out of a slave camp to participate in a fight to be the King's Champion. She not only faces trials throughout the competition (being the only girl) but also outside of it. When contenders start turning up dead, it is up to her to find out who is killing them. The dangerous killer is brought back to the luxurious life of balls, dancing, and young love. But who will learn who Celaena really is? The Crown Prince or his best friend, the captain of the royal guard?

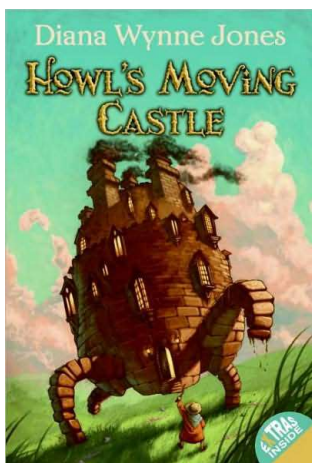
This is a part of an eight-book series that pulls you into another universe. The books gradually get longer, making it a great series to read when you are stuck at home and just want to forget about the trials of the real world.



The Grace Year by Kim Liggett

Set in a dystopian era where men are always right and women are expected to submit, the women of this county have magic. However, they are not allowed to keep it, as it is too dangerous to the men. So, during their grace year, a group of girls is sent away to purge all their magic. No one talks about what happens in the grace year, and Tierney James does not like. Growing up, her dad treated and taught her as if she were his son. The town does not like Tierney as she does not follow their expectations of what a female should be. Using her wits, she leaves for her grace year determined to come back. After all, more and more girls stopped coming back, and she is not going to be one of the dead. This is a standalone book that forces the reader to look back at their own experiences of how ruthless girls can be.

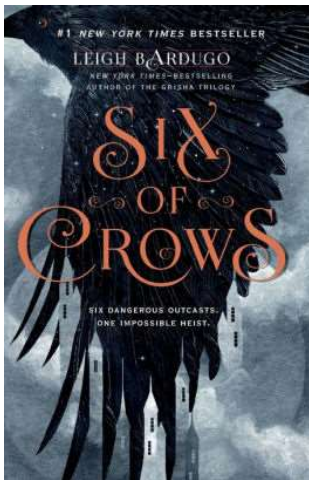
The Grace Year is a mix between *The Lord of the Flies*, *Hunger Games*, and *The Giver*.



Howl's Moving Castle by Diana Wynne Jones:

This trilogy will propel you into a magical and vivid world full of wizards, witches, spells, and curses. The story follows Sophie, a dull hatmaker, and her challenges across this magical land. Her actions attract the ire of the Witch of the Waste which curses her to look old forever. In order to lift her curse Sophie must seek help of Howl, a dangerous and sexual wizard who lives out in the Waste. This giant puzzle of a fantasy trilogy combines love and adventure in the most satisfying way. Be sure to check out the animated film version by Studio Ghibli.

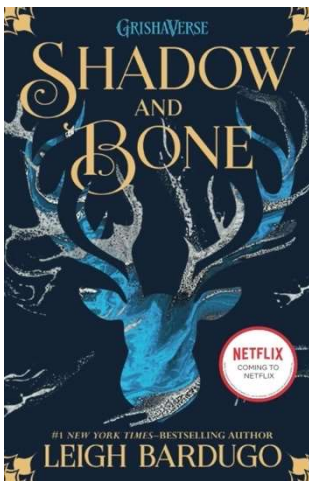
Science Fiction:



Six of Crows by Leigh Bardugo

Kaz Brekker is a 17-year-old criminal who has been promised a large sum of money to capture Bo Yul-Bayur, a Shu scientist, from the Ice Court in Fjerda. Yul-Bayur has discovered an incredibly addictive drug known as *jurda parem*, which enhances the powers of the Grisha, a group of people with magical abilities. However, the Ice Court is incredibly difficult to infiltrate and Kaz can't do it alone. He needs a crew. He recruits five unique individuals—Inej, Nina, Wylan, Matthias, and Jesper—and these Crows prepare to pull off an impossible heist.

The world of *Six of Crows* is incredibly well-developed and provides a pathway into an alternate universe. By switching between the six Crows, you get to learn about every character in-depth, which leads up to an unbelievable ending. *Six of Crows* is part of a duology or a two-book series with *Crooked Kingdom*, another incredible read.

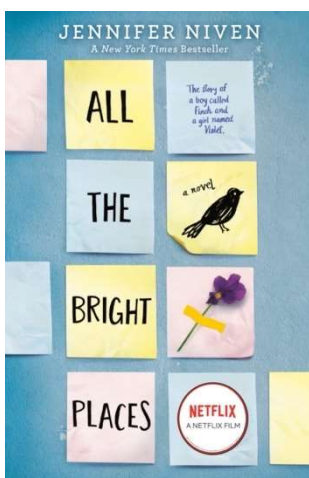


Shadow and Bone by Leigh Bardugo

Meet Alina Starkov: cartographer of the First Army in Ravka. On a trip through the incredibly dangerous Unsea (also referred to as the Fold), a wicked creature known as a volcra seizes Alina from her ship. Alina is revealed to have a surprising and unique Grisha power, one that gives her the potential to destroy the Fold for good. She is whisked away to the capital of Ravka, Os Alta, and is put into training to learn how to use and control her powers.

Preceding *Six of Crows*, Bardugo develops this world in the *Shadow and Bone* series, as well as the magic system of the Grisha. While the plot is a little predictable, this makes for a breezy and enjoyable read. Alina's story spans over three books: *Shadow and Bone*, *Siege and Storm*, and *Ruin and Rising*.

Realistic Fiction:



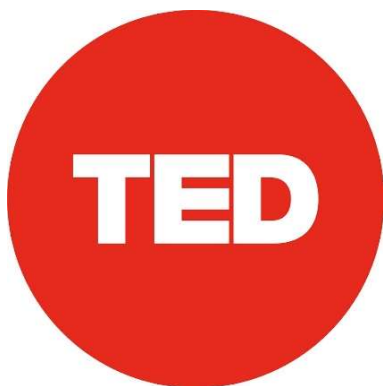
All the Bright Places by Jenifer Niven

Violet Markey wants nothing more than to go through the motions, to trick herself into thinking this is living. Theodore Finch can't stop thinking of death. Two contrasting people—the popular girl and the strange boy—become partners on a geography project that takes them all around the state of Indiana. With each adventure, Finch gets Violet to start to live again. But what happens when it is not enough to keep Finch from his own dangerous thoughts?

The story is told through alternating perspectives between the two main characters. This book can be a little slow in the beginning, but it does pick up. *All the Bright Places* is one of those books that you only need to read once, and many times can only read one time. Heartbreaking and tragic, it truly illustrates how many teens just go through the motions and the effect death can have on a young adult. *All the Bright Places* has also been turned into a Netflix Original movie.

A New Arrival

By Vinay Pendri



Swiping through YouTube, you see a video titled "Inside the Mind of a Master Procrastinator." Curious, you click on it. You hear the familiar applause and see the bright red TED logo. This is the start of a TED talk, and you settle in and prepare for your mind to expand in an unexpected way.

Hundreds of other interestingly titled videos fill the internet and garner millions of views. These TED Talks take place at a TED conference each year. Conferences are usually multiple days long, and they host some of the brightest minds in the world. Some talks give us great life tips, some showcase mind-boggling technologies, and others share significant experiences. However, many other voices also need a platform.

Enter TEDx. TEDx events are meant to be held for communities and host speakers wishing to talk about their passions and accomplishments. Even though there may not be global audiences and crowds of people gazing in awe, TEDx events hold their own special appeal. Students and community members from any grade, group, and age are encouraged to attend, and they bring people together by recognizing the voices of a local community. Unlike a TED conference, with only adult speakers, TEDx recognizes and provides a platform for students to share valuable insights. Every student who has a perspective to share and a story to tell is a valuable addition to the conference.

During a time where we are all disconnected from each other, it is essential that we find our way back to one another and celebrate the Rochester community. National issues like Asian-American hate crimes and police brutality separate people rather than unite them. Having a moment to understand others' viewpoints and hear their ideas is the first step to improving ourselves and impacting the world around us. This much-needed moment for reflection is just one of the many things that this unique event can provide for Pittsford Mendon High School. When two sophomores from PMHS realized what their school was missing out on, they decided to make their dream a reality. From December, they planned their event, and now they have reached the final stretch.

DID YOU KNOW?



The rise of artificial fragrances leaves an unsavory aftertaste; many popular scented products (perfume, cologne, etc.) only contain trace amounts of natural essences, and are also likely to contain a dozen or more potentially hazardous synthetic chemicals—some of which are derived from petroleum.

These chemicals produced from petroleum are called petrochemicals, and they provide the building blocks for many detergents. Although you can date the earliest use of petrochemicals back to ancient Egypt, where olefins (a class of petrochemicals) were created by using gas and fig plants, it wasn't until 1872 when the first chemicals were made from petroleum.

And yet, you can't find these fossil-fuel derived ingredients on the label of your detergent bottle. Instead, makers of many products containing scent can withhold their ingredients. They pick and choose from their 3,100 stock chemical ingredients and lump them into the single word 'Fragrance'. According to the Environmental Working Group, the average fragrance product tested contained 14 secret chemicals not listed on the label, including chemicals known to disrupt hormones and cause allergic reactions. For example, Diethyl phalate, a chemical found in 97% of Americans, is linked to many adverse health concerns.

~Ellie VanHouten

Read more about the significant history behind our sense of smell on page 13



Senator Samra Brouk (right) and Sheila Dunne (left) will be featured guest speakers at the TedxPMHS event.

Many speakers that will attend have their own connections with Pittsford. Speakers such as Senator Samra Brouk and Sheila Dunne—who both graduated from Mendon—will share how they have grown from students like us, to great advocates for change and progress. Senator Brouk has paved the way for students who may have ambitions of public service and community-minded activism. Her grassroots campaign and her initiatives to improve our public education system and environmental impacts have made her one of the most dedicated members of the Rochester community. Sheila Dunne—who made the Forbes Next 1,000 2021 List—is a highly successful entrepreneur and trailblazer who is a role model for all business-

inclined Mendon students. Students interested in pursuing a particular career path will have the opportunity to listen to world-class professionals speak about their work. Afterward, students will have the chance to ask questions in their areas of interest.

We are delighted to announce that this conference will take place on June 12th, 2021 over Zoom. Students from both Pittsford Mendon and Pittsford Sutherland are encouraged to attend and RSVP through the event website, which can be found at <https://tedxpmhs.weebly.com/>, or on the event's Instagram: tedxpmhs. H We will host over ten students, local researchers, activists, and politicians to build a new community of thinkers, dreamers, and team members connected through one event: TEDxPittsfordMendonHighSchool.¹



The MHS Theater Arts Class Presents:

The Laramie Project, a play by Moises Kaufman

The show will be streamed June 3-5 @ 7pm via rmd.me/7vMRdcfaLVZ. More information about streaming will be made available closer to June.

Read more: <https://www.matthewshepard.org/the-laramie-project/>

Reserve ad space in our next edition by emailing pmsnews@pmsnews.com

¹ Sources: <https://i0.wp.com/norfolkpl.org/wp-content/uploads/2019/01/ted-talk-logo.jpg?fit=900%2C900&ssl=1>
<https://newfacesofdemocracy.org/wp-content/uploads/2020/05/Samra-Headshot-1.jpg>

<https://specials-images.forbesimg.com/imageserve/60244b7a038499e9f9ea941e/0x0.jpg?background=000000&cropX1=1423&cropX2=3264&cropY1=333&cropY2=2173> (416x416)

Is Technology a Force for Evil?

By Piper Wilson

Technology plays such a major role in our lives now that it's becoming difficult to do anything without picking up your phone or typing on a laptop. Connecting with friends, cousins, and grandparents; making plans to get lunch or connecting with a tutor; and getting the latest news or figuring out the weather; they're all confined to an online database. Even schoolwork is almost exclusively online. Is this newly excessive technology usage harmful for us?

Virtually all sources point to yes, especially for students and young adults. Not only is the overload of blue light from screens anxiety-inducing, but it's incredibly damaging to your eye health. Blue light penetrates the retina—a layer of light-sensitive cells located in the back of your eye—which can cause long-term damage to its light receptors¹.

In addition, apps have become increasingly addicting. TikTok, Instagram, Snapchat, YouTube, Twitter—even games like Animal Farm and Hotel Hideaway have tactics to draw your attention to their app. Push notifications and slot-machine tactics entice users, sucking them back to the app as often as they can².

Due to this newfound addiction, we often end up multi-tasking and exerting weak effort into both the task at hand and the app we use. Conveniently, for the app, not much effort needs to be put in. But the task at hand—whether it's schoolwork, family time, or practicing an instrument—usually requires a significant amount of effort to yield any form of desirable result. By multitasking with our phones in hand, we run the risk of submitting sloppy homework, weakening family ties, or failing to grow as musicians.

Screens also cause sleep problems and severe mood swings. Sure, some of this may be a side effect of adolescence, but screens play a surprisingly large role. Screen light can reduce the amount of melatonin—the hormone that aids and maintains your sleep—that your brain produces³. As a result, a lack of sleep weakens the immune system and concentration during the day. Similarly, many studies have shown a correlation in increased screen use and symptoms of depression. Correlation does not always indicate causation, however, and there are many other factors that contribute to a depressive state. But an increased use of screens has indeed contributed to the neglect of responsibilities and the reliance on devices as means of controlling stress levels³.



“Apps like TikTok, Instagram, and Snapchat have tactics to draw your attention back to their app”

A study by Common Sense Media showed that, on average, teenagers use devices for seven hours and twenty-two minutes a day—excluding schoolwork³. With Zoom meetings and schoolwork becoming progressively commonplace, the numbers have certainly increased. Unsurprisingly, excessive hours of screen time can have a debilitating effect on the physical structure of the brain. In a study done by Adolescent Brain Cognitive Development (ABCD), teenagers who use devices for over seven hours per day display a thinner cortex—or outer layer of the brain—than teenagers who use devices for less than seven hours per day³. This is a recent discovery; thus, the long-term effects are still unknown. But teenagers are in a crucial stage of developing their minds; screens shouldn't be destroying their mental state before they've had the chance to fully develop.



We can combat this by making an intentional effort to reduce our screen time. Try hard locking your phone at least thirty minutes before you fall asleep; this can help with melatonin production and sleep problems. With the extra half-hour, try reading a book or meditating—both activities can help reduce anxiety levels. Take time to do activities without a screen. After all, so much of our schoolwork is already on a device. Especially with the weather improving, spend time outdoors, pick up a new pastime, or go on a walk with a friend! Although technology is threatening to overrun our lives, these tactics can be used to effectively diminish technology’s destructive consequences.²



“Tactics like hard locking your phone thirty minutes before bed can help diminish technology’s destructive consequences”

An Overwhelming Crisis in Lebanon

By Yasmeen Rifai



Lebanese currency has dropped to a record low, leaving over half of its people struggling to afford necessities.

For the past two years, Lebanon has faced crisis after crisis. Whether it be the gigantic explosion that swept devastation across the country, the arrival of COVID-19 that overwhelmed its hospitals, or the long-brewing political conflict, the country has been in a steep decline—and its people are as well. Unfortunately, one more issue has been stacked onto the shoulders of the Lebanese people. Recently, the Lebanese currency dropped to a record low due to disturbingly high inflation rates.

In 2019, the nation’s banks prevented its citizens from being able to access the money in their accounts. Additionally, money could no longer be transferred abroad. This forced Lebanese citizens to turn to the black market to obtain their currency and resulted in the value of the Lebanese pound decreasing by 90% over the past eighteen months. Currently, one U.S dollar is equivalent to 15,000 Lebanese Liras.

This economic collapse has resulted in 55% of Lebanon’s population being in poverty, which leaves over half of its people scrounging to afford basic necessities. Those who may have been perfectly well off before now have lost their savings and aren’t sure how they will pay for next week’s groceries, especially with soaring food prices.

As if this wasn’t bad enough, the government has provided zero aid to the people and made no efforts towards damage control. Government officials are too busy squabbling over who holds the most power as the country around them is crumbling. It is clear that the government has no intention to do its duty and plans to ride this crisis out on the funds provided by its grossly underserved people. Knowing this, one can empathize with the frustrated and exhausted people of Lebanon who have



² Sources:

1) “Blue Light.” Science of Light, Ott Light Systems, 4 Mar. 2021, www.scienceoflight.org/blue-light/?campaignid=1500355801&adgroupid=63325713052&adid=482197922541&gclid=CjwKCAjwr_uCBhAFEiwAX8YJgW7M8YKA1ry0ZiGzmAZwsLvv2yjWvCNa9_Sqf4ELUuZEyAwWjGzbwhoCvm0QAvD_BwE.

2) Hartmans, Avery. “These Are the Sneaky Ways Apps like Instagram, Facebook, Tinder Lure You in and Get You ‘Addicted!’” Business Insider, Business Insider, 17 Feb. 2018, www.businessinsider.com/how-app-developers-keep-us-addicted-to-our-smartphones-2018-1#twitter-uses-a-psychological-trick-to-lure-you-in-the-same-one-used-in-slot-machines-3.

3) Can Too Much Screen Time Harm You?, National Scholastic Magazine, 2020, headsup.scholastic.com/headsup/cantoomuchscreenarmy.

Images:

<https://i.pinimg.com/originals/f8/86/0a/f8860a7a3129b833d058e57d0866fca5.png>

<http://www.farmlib.org/wp-content/uploads/2017/08/common-sense-media-1.png>

<https://www.extremetech.com/wp-content/uploads/2016/02/iPhone-locked.jpg>

passionately taken to the streets for the past few years, protesting and fighting for their right to a strong central government that serves its people instead of its own greed. Lebanon's people are desperate for a better tomorrow.

Seeing the decline of the situation in Lebanon hits me particularly hard, as it is the place I was born. It ruins me to see the place I hold so dearly drowning in the ocean of its hardships. Additionally, almost all of my relatives live in the city of Beirut—the heart of Lebanon—which, sadly, happens to be the heart of where this conflict is taking place. Talking to them gives me a unique perspective on what is unfolding there. It's one thing to read it on the news, but it is entirely another to hear it from your family who partake firsthand in the struggles each day. Just the other day, my uncle was telling me how lucky people are to get their hands on a loaf of bread.

With the economic and political situations worsening by the minute, I worry for the safety and livelihood of my family. I cannot put into words how terrible it is, not knowing if things will ever be stable enough to go back home and see them. Every day I hope for things to improve, but, realistically, they seem to be going in the opposite direction. For now, that's all I can do. Just hope for a better tomorrow for the country—and the people—that I love. ³

Stop Asian Hate

By Jisu Oh



Xenophobia against Asian populations has been on the rise ever since Covid-19 was discovered in China.

On March 16, 2021, a 21-year-old white man walked into three spas in Atlanta, Georgia, and fired a 9mm handgun upon the occupants, resulting in the deaths of six Asian women. Unfortunately, this brutal incident is not the first act of violence against Asian-Americans. Asians have been receiving an onslaught of extreme discrimination since the outbreak of COVID-19. The use of “Chinese Virus” or “Kung-Flu” to describe the pandemic has only increased anti-Asian sentiment, leading to a drastic rise of hate crimes. Many people of Asian descent have been beaten, pushed, spit on, and called slurs. This swell of xenophobic action even dared to attack elders. A 91-year-old man in Oakland's Chinatown, an 89-year-old woman in Brooklyn, and an 84-year-old man in San Francisco were brutally assaulted earlier this year. These events continuously strike fear within Asian communities, and people have become afraid to walk their own streets.

Racial hostility has been continuously present within language as well. The usual insults being “Go back to China.” “The coronavirus is your fault.” and “You are the virus.” Even before the pandemic, casual discrimination has been a constant through slips of microaggressions, slurs, and mockery of culture in everyday conversations. Ethnic traditions have been reduced to stereotypes, and the American opinion of your heritage seems to be the only one that matters.

As an Asian-American myself, I have experienced amplified actions of bigotry during the pandemic through obvious taunts and slurs that were designed to hurt. However, the true, consistent form of

³ Sources:

<https://www.hrw.org/world-report/2021/country-chapters/lebanon>
<https://english.alarabiya.net/News/middle-east/2021/03/02/Lebanese-take-to-streets-to-protest-economic-collapse-as-currency-hits-all-time-low>
<https://www.usnews.com/news/world/articles/2021-03-04/protesters-block-lebanon-roads-for-third-day-as-economy-falters>

Images:

<https://apnews.com/article/middle-east-lebanon-coronavirus-pandemic-financial-markets-beirut-a415a44f56c1f4ef11ef75208bd82d53>
<https://www.aljazeera.com/gallery/2021/3/7/in-pictures-lebanon-on-edge-as-protests-persist>

humiliation arises in the comments that are blind to both sides—the giver as well as the receiver. Every year I have lived in this country, I have received comments that were lightly passed on

as jokes but have only struck as hurtful and uncomfortable. Since the early years of elementary school, I could never voice my discomfort because of the offhand manner that the insults were delivered.

My peers didn't understand what microaggressions were, and teachers—if they noticed my hesitation—would simply tell me to “move on” and “laugh it off.” My offended, hurt feelings would be brushed aside and dismissed as if I were invisible. So, I laughed along and grew ashamed of my heritage. And of course, since I never spoke out, the shame continued. I was persuaded that my treatment was normal—correct, even—and that to be treated with respect was a luxury. I tolerated it all because speaking out and making an incomprehensible mess seemed to be merely for my selfish comfort. And I know that I am not alone in my experience.

The giver does not know of the rooted violence within their language, and the receiver is groomed to endure it.

Now I understand ignorance is buried within every generation, and escape seems inevitable. They will not understand holding your heritage close to your heart and forcing yourself to throw it away, opening your eyes as wide as you can, digging every American syllable into your tongue, and laughing hollowly when they mock your ancestry. Blatant ignorance is slapped onto your face, and you are expected to overlook it. This is the tax you must pay—you are perpetually a foreigner and will always be invisible.

Because of ignorance, racism is prevalent, and people must endure constant humiliation at a young age. It is because of ignorance that they grow to believe that their unjust treatment is tolerable. The refusal to acknowledge people as Americans because of their race—whether purposeful or not—supports the invisibility that people of color face.

But I am not here to accommodate ignorance. I am here as an American citizen to live and be treated as such. I will not be invisible.

Xiaojie Tan. Daoyou Feng. Hyun Jung Grant. Soon Chung Park. Suncha Kim. Yong Ae Yue. Remember their names. ⁴



Many protests have occurred around the US in 2021 in response to the rise in Asian hate crimes.

Word Search Key



⁴ Sources: <https://blog.google/outreach-initiatives/diversity/why-im-speaking-out-against-anti-asian-hate/>

Images:

<https://blog.google/outreach-initiatives/diversity/why-im-speaking-out-against-anti-asian-hate/>
<https://www.latimes.com/world-nation/story/2021-03-05/anti-asian-crimes-harassment>

Hate Zoom Wednesdays? Here's Why.

By Angel Tang

I think the consensus is Zoom Wednesday sucks. Mindlessly sitting at your desk for six hours; mindlessly staring at your computer screen for thirty-five minutes then your phone screen during the five-minute break times nine; mindlessly taking in obscene amounts of blue light; mindlessly jumping in and out of Zoom calls... sounds like Disneyland. And that mindlessness leads to a surprising state of tiredness, even though all you've done is sit and stare at a screen. But for once, it's not just you! Scientists have deemed that tiredness *Zoom fatigue*, and more and more people working from home are complaining about it. But why are you tired? You probably didn't unmute yourself once during a meeting, and you definitely haven't taken many notes, yet you feel like you need coffee, badly.

KUWTK

Well, school has pretty much become a reality TV show, as Zoom has brought the cameras inside our homes. Even though it isn't really filming, the notion of cameras and being projected onto others' screens makes us feel like we're being watched. It also creates social pressure and the need to perform for our classmates—sitting up straight and looking at the screen instead of slouching and getting distracted by the person walking their dog outside.

In-person, our presence is enough companionship, but what presence is there when we're virtual? So, we feel the need to be witty or entertaining to make up for the lost warmth of interpersonal connection because the only thing representing us is a head shot. This performative pretense drains our energy, contributing to Zoom fatigue.

And the more people in a Zoom call, the more performative we believe we must be, as, within a larger group, there is a sense of diminishing individuality and depersonalization.

Sounds like reality TV, right?

We once were round



Looking at a screen for every event, more and more of us have a monotone feeling about social events as they are all the same.

The self-complexity theory states that individuals have multiple aspects and context-dependent social roles, relationships, activities, and goals. But in what context? The bedroom you've been in for the last nine months?

These various parts of ourselves are crucial to our health. By reducing this variety, we become one-dimensional, much like those flat characters that your English teacher is always against. No significant characteristics, no substance, no depth.

Not only is your context limited, but so is everyone else's, making it challenging for the creation of distinct types of interaction or conversation on Zoom. There is no longer a need to express a different version of ourselves for each occasion because there are no unique occasions—just one weird, school-home-professional-casual jumble for every online meeting.

Synchronization: the key to happiness

Our communication skills have been refined over centuries. We communicate through precisely timed vocalizations, gestures, and movements, and rely on precise responses from others to determine if our point has been made. This precision is hammered into our subconscious. A delay, even milliseconds long, will still be

registered by the brain, inducing it to work harder to overcome the delay and restore synchrony. This increased cognitive processing, as a result of receiving information passively during a video call, also contributes to Zoom fatigue.

Some scientists would go as far as to say synchronization makes us happy. Studies of certain biochemistry reactions have shown that when we are in person, neurotransmitters such as dopamine, which is linked to pleasure, are released due to the richer stream of social signals, and the hormone oxytocin is also released as a byproduct of synchronization.

So bad internet connection and audio disruption are deranging finely tuned communication skills, making our brain work harder, and making us unhappy. Go Zoom!

There's a bear!

Zoom has invaded our lives so much; we have even come to view it as a threat. The enlarged faces of classmates on our screens subconsciously creates a threatening feeling within us. This increases the production of stress hormones, and ultimately drains your energy as your body is preparing to confront this stressor (the enlarged faces), and thereby uses more energy than normal so you'd be able to run away or go into combat at a second's notice. This is known as the fight-or-flight response.

In an early study, participants were monitored by electroencephalography (EEG)—an electrophysiological monitoring method that records the electrical activity of the brain--as they were stared at from distances of two to thirty-two feet. The recorded electrical brain activity reflects biochemical changes in the subject representing a range of physiological states including high alert and fight-or-flight. In this study, the brain activity of the participants peaked when the researcher stared directly into their eyes from two feet away, and this two-foot distance is replicated in a Zoom call twenty times over with our classmates' enlarged faces.



Our social skills have become diminished, and interactions now feel extremely tiring; we feel less attached to others.

Is she mad at me? I think she's mad at me. Yup, she's mad at me.

Having not properly socialized in the last nine months, our people skills have diminished. Specifically, we are less able to tap into the “theory of the mind” and sense others’ intentions and emotions. So, you’re probably taking critiques harsher than the speaker intended, and may have the feeling that someone somewhere is mad at you. Because we are virtual, you can’t clear up these misunderstandings, and instead continue down the path of a one-sided narrative of other people’s thoughts. This over-analyzation takes a toll on the brain and is another contributing factor to Zoom fatigue.

Not only are we tinting everything grey, but technology is also a pessimist. In-person, silence creates natural rhythm and pause, but in a video call, silence is awkward and implies lost connection and even negativity. A 2014 study by German academics showed delays on a phone or conferencing system shaped the views of people undesirably—even a delay of 1.2 seconds made people perceive the responder as less friendly or focused.

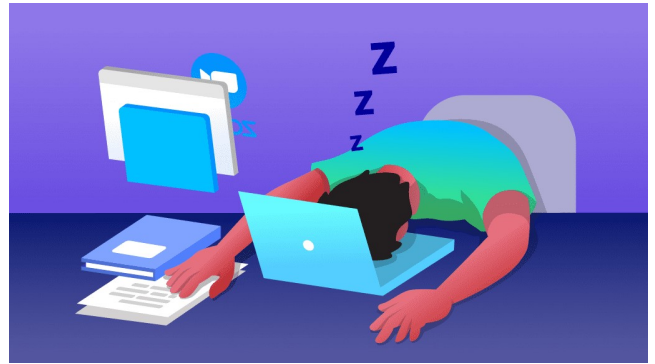
How to combat Zoom fatigue

Though the only true cure to Zoom fatigue would be to eliminate Zooms, here are some tips to alleviate the effects of heavy Zooming and help you get through Zoom Wednesdays:

Avoid multitasking. I know your phone is right there, and Netflix is just a click away on your computer, but humans are just not meant to multitask. Try to focus on the lesson, not only because you need to learn it, but also because your brain won't be juggling three tasks at once and using up your energy.

Reduce on-screen stimuli. Admit it. You're staring at yourself most of the time during a Zoom call, making sure you don't look stupid or do anything stupid in front of your classmates. Yet this is another distraction, and to stay focused, hide yourself from view.

Move your body. I'm pretty sure most of us are just using those five-minute breaks to scroll through Instagram or Snapchat, but try to pull yourself away from the ever-addicting screen and get your blood flowing by standing up and doing some stretches. ⁵



The Power of Scent

(under our noses since the rise of civilization)

By Ellie VanHouten

Walk down any laundry detergent, hand sanitizer, deodorant, soap, perfume, cologne, cleaner or candle aisle to witness society's obsession with the scented product. Name any fragrance of your fancy, and chances are it's been concocted and bottled, ready to be spritzed and suffused in whatever setting you may desire.

So, when did this obsession with scent—the underappreciated, often forgotten fifth sense—become so pervasive in human culture? Where are the ancestors of our modern perfumes, the predecessors that primed our scent palettes for the specific taste of 'Jasmine

Leather,' the mysterious 'Moonlight Breeze,' and the ever-ambiguous perfumes like 'Perhaps'? It turns out, creating scents has been a revered and widely practiced art since the rise of human civilization—and it's remained in our culture ever since; a purveyor of emotion and memory, and one of the most overlooked senses in our bodies.



In 1200 BC, the world's first recorded chemist, Tapputi Belatekallim, assumed her role as the overseer of perfumery in the royal palace of ancient Babylon. Through clay cuneiform texts, Tapputi takes us through her step-by-step process in the creation of a royal ointment containing water, flowers, and calamus (which can refer to the reed-like plants or lemongrass used in today's perfumes). Using her 'still,' a filtration and distillation apparatus, Tapputi skillfully blended a fragrant salve for the Babylonian king.

⁵ Sources

<https://bond.edu.au/nz/files/4829/How%20to%20Combat%20Zoom%20Fatigue.pdf>
<https://www.liebertpub.com/doi/pdfplus/10.1089/cyber.2020.29188.bkw>
https://www.counsellingresources.co.nz/uploads/3/9/8/5/3985535/the_reason_zoom_calls_drain_your_energy.pdf
<https://tleonestoga.ca/zoom-fatigue/>
https://www.darley.com/documents/general_content/Why_Does_Zoom_Exhaust_You_Science_Has_an_Answer_-_WSJ.pdf

Image Sources: <https://www.adweek.com/wp-content/uploads/2020/11/ZoomClassIllustration.jpg>
https://www.rev.com/blog/wp-content/uploads/2020/07/ZoomFatigue_Blog-1024x576.png
<https://www.scmp.com/news/hong-kong/health-environment/article/3081314/bad-dreams-more-stress-and-nowhere-hide-zoom>

As Tapputi worked at her still, a new culture of perfume gently settled on the society around her. Ancient Egyptian civilizations, including that of Babylon, became the first to integrate perfume into their customs—pungent fragrances associated with the gods. Natural deities were personified by the essence of flowers, and perfumes were believed to make people more attractive in the eyes of those they worshipped. Of course, fragrance could have also been popular because of its ability to counteract the stench of the cities before modern hygiene.

Because of its religious significance and its general appeal, fragrance was rapidly accepted into society. In fact, it was so widely used that one of the most common uses of glass, invented by the ancient Egyptians, was for perfume bottles.

Fragrance even became a symbol in life and death events; scented waters were sprinkled on guests during banquets and rituals, and aromatics permeated mummies. Several pots of perfumed ointment buried with King Tutankhamen around 1350 BC were still pungent when opened in 1922, their robustness signifying a close connection to their culture.

Soon, perfume wasn't just relegated to India and the Middle East, where pungent plants such as cinnamon, myrrh, jasmine, violets, orange, lemon, and sandalwood were abundant. With production facilitated by Persian and Arab chemists, it soon drifted across Europe and Asia, immersing Chinese, Hindu, Israeli, Carthaginian, Arab, Greek and Roman cultures in florid fragrances.

However, during the dark ages, many of these societies were thrust into cultural deterioration. The arts flailed with people too busy just trying to get by. It was during these years that perfume underwent a metamorphosis in purpose. Kept alive in the cocoon of the Muslim world, perfume gradually re-emerged in the dawn of the Renaissance—but now, instead of symbolizing the gods, perfume was blended on the basis of attraction.



The geranium, a flower whose scent was recreated in one of the world's earliest chemical perfumes.

lengthy process of growing, harvesting, and extracting the natural oils themselves. The very first chemical aromatic was nitrobenzene, prepared from nitric acid and benzene and producing the smell of almonds. Coumarin, another chemical aromatic, was developed in 1868 by Englishman William Perkins, and captured the freshly mown hay scent of the South American tonka bean. Synthetic vanilla and violet, created by Ferdinand Tiemann, was also introduced, as well as Francis Despard Dodge's citronellol, which had the odor of rose or geranium.

Scent—a purveyor of emotion and memory—is one of the most overlooked senses in our bodies.

Perfume's new purpose was on full display in mid-19th century France, where King Louis XV promoted scents in his La Cour Parfumée. "Society went into a frenzy over perfume. Custom dictated everyone leave a distinct aura in their wake," noted the guide at the International Museum of Perfumery in Grasse, France, where the modern history of perfume began. Everything—from furniture to gloves and clothing—was drenched in scent.

The fragrance fervor continued into the 18th century, only spurred by the invention of the perfume Eau de Cologne, which was mixed in with wine, drizzled on sugar, and added to bathwater, poultices, and even enemas.

The 18th century also witnessed the turn to synthetic aromatics, the intent to isolate the "odorous principle" from natural oils to avoid the labor-intensive and

Synthetic perfumes revolutionized the world of perfume. Producers were no longer dependent on the weather for the harvest of flowers and could increase the variety of scent palettes. However, not every perfume producer agreed these scents were equal replacements of the originals. "It's like silk against polyester," explains Françoise Marin, Roure perfumer and director of its perfumery school. "You cannot replace the touch of nature."

Nevertheless, synthetics continued to grow, only adding to the plethora of perfumes introduced and popularized in the 20th century—often referred to as “knock ‘em dead” scents because of their strong and aggressive nature. This trend swiftly evolved into more subtle scents in the 90’s, hinting at floral freshness and the sea. Now, perfumes are more sophisticated and niche than ever before.

But perfume only constitutes a subsection of scented products; enter the laundry detergent, hand sanitizer, deodorant, soap, perfume, cologne, cleaner, candles, and countless other products we see in stores today. For this we have to thank the 1980’s, when the boom of products and swell of consumerism ushered in the new age of scented products. It was the 80’s and early 90’s that witnessed the rise of Yankee Candle, the addition of perfume to Liquid Tide, the start of Bath and Body Works, a plethora of newly scented deodorants, and the very first study of scent marketing in retail. Through the myriad of products now available, fragrance had become undoubtably meshed with our society.



Scented laundry detergents are commonplace in modern-day supermarkets.

But the question that remains is—why? Why *scent*? In a 2019 survey, most adults ranked smell as the least important sense. Even Aristotle criticized our sense of smell, stating quite clearly, “Man smells poorly.” We associate smell to “lesser” animals, associating the act of sniffing to animals rooting around in the dirt for food. After all, our noses aren’t like those of dogs, cataloguing information with a single whiff. So why do we continue to live in cloud of fragrance?

Because of our grudge against our sense of smell, the study of olfaction has only just begun to pick up speed. Scientists are still trying to piece together how we label scents, and why certain scents are attractive to some and revolting for others.



“Scent has the capability to unearth strong memories and emotions”

Despite the limited amount of information, researchers have formed a hypothesis explaining our varying relationships with different scents. According to Brown University psychologist Rachel Herz, our scent likes and dislikes start to form in the womb, as the chemical composition of a mother’s breast milk or amniotic fluid can become scented by what she consumes. Our preferences then continue to evolve through our lifetimes, and sometimes the arbitrary pairings of experiences and odors creates these preferences, giving us life-long associations with particular scents.

Say you find a candle that smells like freshly baked cookies. You are immediately whisked away by nostalgia into those Saturday afternoons in your grandmother’s kitchen, therefore forming an emotional connection to that candle.

This may seem obvious, right? Scent has the capability to unearth strong memories and emotions. But our sense of smell is more sophisticated than nostalgia, and it is more powerful than we believe. While trying to classify various scents, we've been avoiding the connection of our olfactory systems to our behavior and health.

For instance, humans have the power to differentiate our immune systems from someone else's just by their scent. After a sniff, we can determine if someone's histocompatibility complex (a group of genes working for the immune system) is different from our own. If it is, we would theoretically be attracted to them. This is what makes perfume intriguing from an evolutionary perspective: Essentially, when we douse ourselves in fragrance, we obscure this natural scent, thereby producing a more personally optimal relationship over one more favorable to our entire species.

What's even more fascinating is the fact that olfaction is closely intertwined with our immune systems. If you look in your kidneys, small intestines, lungs and stomach, you can find olfactory and taste receptors which notify tissues of approaching pathogens.

Needless to say, we shouldn't underestimate the power of smell. Although scent is so pervasive in society, although we can trace our infatuation with perfume and fragrance back to ancient Egypt, sometimes it's easy to forget how important it is to our daily existence.

Take COVID-19, in which the loss of smell is a documented symptom. In the early stages of the pandemic, the newly created Global Consortium for Chemosensory research conducted a survey of people with respiratory illnesses who lost their ability to smell. Participants wrote pages in open-ended text boxes, describing their feelings as "disconnected" and "adrift". Similarly, a member of the G.C.C.R who lost her sense of smell in 2012 said "Life lacked color, luster...my sense of humor had deserted me."



Next time you wait for your morning cup of coffee to brew, next time you reminisce about standing on the edge of the ocean, step outside when the trees are blooming, or even hug a loved one, think about how different that experience would be without your sense of smell.

Maybe then will you understand humanity's enduring obsession with scent—it's been under our noses since the beginning of civilization, but we have yet to appreciate how powerful it really is.⁶

“
Applications are live on our website!

- Have any coding experience and love to teach?
- Want to learn Scratch, Java, Python, or other languages
- Join ROC to learn computer programming or get rewarding volunteer hours



ROCHESTERCODE.WIXSITE.COM/WEBSITE

QR Code for Website:



⁶ Sources:

<https://www.dana.org/article/ah-sweet-skunk-why-we-like-or-dislike-what-we-smell/>
<https://www.thoughtco.com/history-of-perfume-1991657>
<https://cosmosmagazine.com/chemistry/for-gotten-women-in-science-tapputi-belatekallim/>
<https://www.jstor.org/stable/25092493>
<https://www.jstor.org/stable/486753>
<https://www.nytimes.com/2021/01/28/magazine/covid-smell-science.html>
https://link.gale.com/apps/doc/A243895070/GPS?u=nysl_ro_pmh&sid=GPS&xid=5bd3c493
https://link.gale.com/apps/doc/A10852987/GPS?u=nysl_ro_pmh&sid=GPS&xid=88a87b01
https://online.salempress.com/articleDetails.do?bookId=723&articleName=PBH_0156&searchText=perfume&searchOperator=any&category=Health
<https://www.temptationgifts.com/gifts-by-brand/yankee-candle/the-history-of-yankee-candle>
<https://www.latimes.com/archives/la-xpm-1989-12-31-fi-270-story.html>
<https://www.nytimes.com/1990/08/12/business/all-about-deodorants-the-success-of-sweet-smell.html>
<https://airescentials.com/history-scent-marketing/>

Sources for artificial scent section:

<https://www.scientificamerican.com/article/toxic-perfumes-and-colognes/>
<https://www.symtor.co.uk/chemical-history/>

Images:

<https://intotheboss.com/2014/07/perfume-fragrance-definition/>
<https://www.thebalanceeveryday.com/how-to-save-money-on-laundry-detergent-940557>
<https://hgic.clemson.edu/factsheet/geranium/>
<https://stock.adobe.com/si/search?k=smelling%20cookies>
<https://blogs.webmd.com/public-health/20200706/can-i-drink-coffee-while-fasting>
<https://www.ulta.com/n5-cau-de-parfum-spray/productId=pimprod2015864>

Word Search

N B V D B J P V L O S I Q U G
W U W L Y I Z L Y K U P L H E
A D T H O Y K M R O N G H L M
R S D F B U A I H X S S I A F
M Y H A M U T J N J E K K P L
B Q E N L P T D P G T C I R O
Z D E I D R Z T O A S L N I W
A S M M F H J E E O X D G L E
V T D A U I S A I R R O C S R
R R Y L Q X S S F J F S F H S
A Y V S Y Y M H P Q L L Q O B
I M F R E S H A I R B H I W E
N Z Y R U A F S W N P O W E E
Y R A I N B O W S A G Q Y R S
U S P R I N G Z O U J P O S N

April Showers

Sunsets

Animals

Rainy

Butterflies

Outdoors

Hiking

Warm

Fresh Air

Fishing

Biking

Buds

Rainbows

Spring

Flowers

Bees

Created by Abby Schwartzman

Key on page 10