

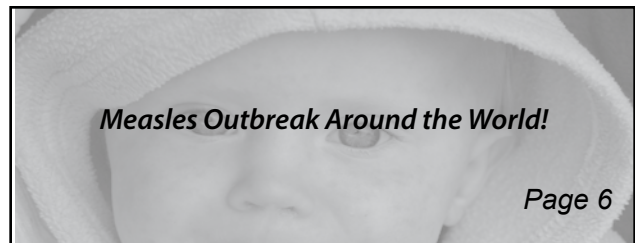
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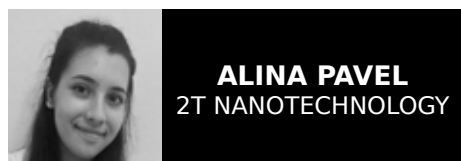
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## The Grammy Awards 2019

A Quick Recap of the Most Awaited Music Awards of the Year



**ALINA PAVEL**  
2T NANOTECHNOLOGY

The 61st annual Grammy awards took place on Sunday, Feb 10th and were hosted by singer and songwriter Alicia Keys. Overall, there were many talented nominees across 84 categories in various genres. While the number of awards hasn't changed since last year, there were a few important changes made for this year's awards. The biggest change in the structure of the award show was that the number of nominees for the 'Big 4' categories was upped from five nominees to eight nominees. This was done in an effort to introduce more diversity into the event following criticism over last year's show.

Starting with the biggest 4 categories; Record of the Year and Song of the Year both went to Childish Gambino for his song "This is America", Album of the Year went to country singer Kacey Musgraves for "Golden Hour", and the Best New Artist was pop singer Dua Lipa. The biggest winners of the night were Kacey Musgraves and Childish Gambino, with four Grammys each. Notable performances included: tributes to Dolly Parton, Donny Hathaway, and Aretha Franklin; a 10 song, a dual-piano solo performance by Alicia Keys; a Motown 60th anniversary performance; and songs from Lady Gaga, Post Malone, Travis Scott, Cardi B, and more.

This prestigious event in music often draws a lot of controversies, and this

year was no exception. Many big-name artists such as Drake and Kendrick Lamar flat-out refused to perform, and Ariana Grande and Childish Gambino were no-shows. 2018's Grammy awards were disappointing to many viewers due to the lack of diversity in the winner's pool, with pop artists like Bruno Mars and Ed Sheeran beating out artists that had a stronger impact with their music – such as Logic and his song "1-800-273-8255."

Many artists and fans believe that the Grammys are nothing more than a popularity contest – giving the most attention to artists who sell more copies, rather than to those who have a more meaningful effect on the industry and on societal issues. While this year's awards did improve on the diversity factor thanks to more female winners, it seems that the Recording Academy (they have the final say in who wins) still need to do a better job listening to the artists they represent.

For example, Drake literally got cut off while doing his speech, after encouraging fellow artists that they "don't need [a Grammy] right now" and pointing out that "a bunch of people" (presumably Academy members) don't understand the cultural impacts behind the music. Ariana Grande explained over Twitter that the reason she failed to perform at or attend the event was because she felt that her "creativity and self-expression was stifled" by Grammy producer Ken Ehrlich who would not let her perform the songs she wanted to.

While it is true that music is entirely subjective, many hardworking artists still get snubbed every year. The Grammys



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Alicia Keys hosted the 61st Annual Grammys

need to embrace music as a platform for change, and not only for its appeal to people's ears and wallets. They have made slow progress over the years by awarding more and more diverse artists,

but it seems this has all been due to backlash from previous years. For the Grammys to stay relevant, they need to respect the one thing they stand for – the artists.

## Benefit Cosmetics Hires Model with Down Syndrome



**MRIDU WALIA**  
MECHANICAL

It is so wonderful to see major cosmetic brands that are making efforts in promoting inclusivity and diversity in their marketing campaigns, as well as engineering cosmetics that include every skin type, colour etc. Benefit Cosmetics Ireland recently hired Kate Grant, a model from Cookstown in County Tyrone, Northern Ireland, who is also the first model with Down Syndrome (DS) to be named Teen Ultimate Beauty of The World in July 2018, as one of the four "wing woman" hired to be the brand ambassador for their new Roller Liner Liquid Eyeliner campaign. They took it to their Instagram page (@benefit\_ire) to make the official announcement on January 9, 2019, captioned, "Our #womancrushwednesday goes to Ireland own @kategrantmodel wearing the NEW #rollerliner matte liq-

uid eyeliner! Kate is a true Benebabe from Tyrone, who recently modelled for our Roller Liner campaign!"

Benefit Cosmetics is a globally renowned manufacturer of cosmetics, with over 2000 store counters in over 30 countries. Their bestselling cosmetics include everything from eyebrow products to face primers to bronzers and mascaras, and each of these products resonates with their unwavering belief in the phrase "Laughter is the best cosmetic!". According to DailyEdge, in 2016, Benefit Cosmetics sold the Hoola Bronzer (one of their bestsellers) every 10 seconds, making it one of the world's most popular bronzing products. Kate Grant, 20, was featured in a documentary called Role Model on BBC1 about her journey as a model. She has walked the Belfast Fashion Week as well as appeared on ITV show This Morning. A representative for Benefit told DailyMail, "We discovered Kate by chance in the summer of 2018 when we saw a Facebook video about her journey to becoming a model".

They loved her for her "infectious smile", "amazing energy" and "incredible zest for life". In an interview with HER, Mark Rogers, head of marketing for Benefit Ireland, said he was looking forward to working with Kate. "I am personally super excited to work with Kate," Rogers said. "She embodies everything we believe in, from overcoming adversity and living and breathing positive vibes."

Kate wanted to be a model since she turned 13, however, she struggled to find any good gigs because she has Down's syndrome, which is a disorder caused due to a chromosome defect, specifically chromosome 21. People with DS have a third copy of this chromosome, also called "trisomy 21", which causes intellectual impairment and physical abnormalities such as short stature, broad facial profile etc. She emailed many agencies but did not get any work and was crushed. Kate's mother, Deirdre, uploaded a picture of Kate from her prom, wearing a sparkling blue dress, and asked if it was unreasonable for Kate to aspire

to be a model on Facebook. To her surprise, the post went viral and was shared over 26,000 times. Kate received lots of compliments and words of encouragement. She was also asked to participate in the beauty pageant and represent Northern Ireland by the pageant director, Taylor-Rae Hamilton after he saw the post on Facebook. The Ultimate Beauty of The World is an international beauty pageant that has three sections: Junior (3-12), Teen (13-20) and Senior (20+). It celebrates diversity and people who are "beautiful inside and out". The contestants participate in fundraising for charities and last year's charity was Make a Wish Foundation. She won the beauty pageant and was on cloud nine, but she knew her work wasn't done. She told the Mirror, "I want the next generation who have any special needs to know the true meaning of beauty is who you are, not what you look like. Kindness, compassion and inner sparkle, that's the ultimate beauty. If the judges saw that in me then I'm happy".

# Letter From the Editor

## What Did You Read This Reading Week?



**SAMRIDHI SHARMA**  
EDITOR-IN-CHIEF

It's just the beginning of reading week as I am writing this. With the whole week ahead of me, I just feel like diving into a book with a cup of hot chocolate and literally do some reading (ha-ha, I know!), curled up next to a fireplace. But let's be real. I live in a student housing and there is no fireplace or hot chocolate for that matter. So, I really just feel like reading a book, sans accessories. To share the joy of reading, I thought I'd recommend some of my favourite books to you, with my reviews. To be fair, I haven't read these in a while, but they have changed my life in small, little ways.

Talking about changing my life, my favourite book of all time has to be *I am the Messenger* by Markus Zusak. The story is told from the perspective of the protagonist, Ed Kennedy, who has a strained relationship with his mother and lives alone with his dog, the Doorman. Ed has three friends, one of whom, Audrey, he is in love with. One day, Ed accidentally comes in the way of a robbery and is dubbed a local hero. A few days later, he receives an envelope containing an Ace of Diamonds, three addresses and times written on it. At one address he finds a woman who is being raped by her husband, at another a girl who runs barefoot everyday and still keeps losing at her track meets. The third address is of a widow. The story follows Ed as he comes up with unique solutions to take away these sorrows from these people while putting himself through emotional and physical agony. More Aces keep showing up after he accomplishes these tasks. His own life takes a backseat in the process as he is consumed by curiosity – he doesn't know who is sending him these cards. However, the character development of Ed, and how his relationships grow because of that is the central idea of the book. I call this book life changing because it reinstates the idea that you don't have to change the world to be proud, or a good person. Even if you are just the messenger, like Ed, you can still change the lives of only a few people and that would change the world for them. After reading the book, I remember seeing the people around me in a new light. More often than not we are so consumed by our own life that we forget that the people around us have their own struggles, thoughts, conscience, and it is unfair of us to perceive them with biases that often fog our eyes. I highly suggest reading this book if you would like to refresh your perception of the world around you, or even for just a quick light read. You will not be disappointed.

Zusak is better known for *The Book Thief*, easily his most popular work. This book follows the life of Liesel, a young girl who loses her father and moves in with her foster parents. The book is set in Nazi Germany. Her foster father, Hans, a gentleman realizes the importance of teaching Liesel how to read in this destructive environment. Liesel befriends Max, a boxer they are hiding in the basement, and also Rudy, a neighbour who ends up falling in love with her. Liesel starts stealing books that the Nazis are trying to destroy and reading them. While the story itself is heart-clutching, to say the least, what struck me the most about this book is the narrative. Zusak introduced Death as a narrator in this novel. We see Death personified as gentle and caring. It makes sense to have Death as its own character because he sees everything. In the Nazi regime, death was so prevalent that only Death could accurately describe the happenings. The mortality of everything around Liesel is what makes this book so beautiful, heartbreaking, and touching. The reader feels for her as she risks her life to read books that she isn't allowed to read. She proves to us that unbiased learning is worth everything that you can give. This book made me cry real tears of sadness for this girl, who despite her courage and maturity is faced with numerous obstacles that she needs to overcome before she can obtain the knowledge she deserves. I recommend reading this book if you are a history enthusiast. It is in no way a light read but once you start reading it, it is almost impossible to put it down. Just, read it for Liesel.

The next book I really enjoyed reading is *The Time Traveler's Wife* by Audrey Niffenegger. In this book, Niffenegger tells the story of Henry DeTamble, a librarian suffering from a genetic disorder that lets him time-travel. He cannot control where he goes and for how long, but usually ends up in places significant to his life. He also can't bring any belongings with himself. When he reaches the past or the future, he always ends up naked. Consequently, he teaches himself skills like lock-picking and self-defense. When he meets his wife, Clare, for the first time, she has actually known him for all of her life. This is because once he does meet Clare, he starts travelling to the past all the time to go visit Clare in her childhood. The book follows the life of Henry and Clare as a married couple and their struggle with this disorder. I enjoyed this book so much because of its cathartic nature. It highlights very real problems which are exaggerated by the inclusion of these extraordinary circumstances. I also really thought it was mind-boggling that while most of us consider time-travel as

a superpower, Niffenegger reimagines it as almost a disease. The feminist in me loved this book because of Clare's strong character. She is there for her husband and supports her family through Henry's unexplained and unpredictable absences. You will love this book if you enjoy science fiction and are a little bit of a romantic at heart.

Finally, I want to bring your attention to *The Handmaid's Tale* by Margaret Atwood. The setting for the book is a dystopian republic that has replaced the United States of America. The story follows Offred, a handmaid who has been employed to bear with and for her commander. The "ceremony" for this happens silently, dispassionately, and with her commander's wife holding her hand. She is not allowed to leave the house, except for shopping trips with a peer. The Eyes, a secret police force, are always watching her and other handmaids. In the novel, Offred breaks rules by befriending her commander, being friends with a member of an underground rebellion, and having an affair. She recalls events leading up to her becoming a handmaid and misses her daughter from her free life dearly. The mystery develops as her commander's wife promises to reconnect her with her daughter, in return for a favour. My favourite part about the book is that Offred, even in this situation where she cannot help herself, shows courage in any way she can. Little anecdotes in that are dispersed throughout the novel display the author's genius in shining light on how rebellious Offred can be. I love Atwood's way of writing a feminist story when the whole setting is sexist. This book is in no way an easy read. I took a number of breaks just to catch my breath from the stress of reading it. Nonetheless, it was so worth it. You will definitely love this book if you are a feminist or like strong characters in your prose.

*The Book Thief* has also been made into a motion picture that you can watch if reading is not something you like to do. *The Handmaid's Tale* is a TV show as well. All four of the books I have mentioned are really relevant today despite being set in various timelines. As you can tell, I enjoy catharsis and books seem to do the trick for me. This list is in no way complete. There are so many beautiful books out there! I hope you find a format that you enjoy, or maybe even a different book. Some of the books that I enjoyed reading in the past include *Of Mice and Men*, *The Kite Runner*, and for some light reading *Me and Earl and the Dying Girl*. If you have read or are reading any of the books I mentioned, or if you have any recommendations for me to read, feel free to reach me at [iwarrior@uwaterloo.ca](mailto:iwarrior@uwaterloo.ca).

THE IRON WARRIOR

The Newspaper of the University  
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# Ontario's Electricity Generation

## Where Does Your Power Come From?

**DAVID MENDOZA**  
1B CHEMICAL

The implementation of solid biomass to produce electric power can be achieved with different methods. The environmental impact can be diminished considerably, and since Canada has a high availability of biomass, sustainable power generation system can be developed using this renewable source. The energy production in Ontario has been based on nuclear power. As a result, "nuclear power meets more than 60 percent of Ontario's electricity needs" as shown in Table 1. Using uranium as a primary source to produce electricity in an efficient way maintains greenhouse emissions relatively low. However, uranium is a radioactive non-renewable resource that can produce significant industry hazards such as health repercussions, and nuclear waste needs to be transported and stored "High-level wastes remain deadly for up to 10,000 years" representing high maintenance budgets and affecting to the environmental degradation.

The solution proposed relies on the implementation of solid biomass waste for

energy production and restructuring of nuclear power plants in Ontario Power Generation. Forest residues comprise the majority of biomass available in Canada. Biomass is defined as a sustainable source that requires considerable amounts for power generation regulating the organic waste present in the environment, and the carbon neutrality of bioenergy production systems allows for the significant mitigation of the carbon footprint. The generation of bioenergy using biomass, agricultural and forestry waste specifically, depends on the type of biological waste using different physical and chemical processes to obtain biofuels at low cost rates. The most effective methods are pyrolysis and gasification. Pyrolysis consists of the exposure of biomass to high temperatures in a close system without oxidizers to obtain liquid biofuels. Gasification comprises the thermal degradation of biomass using air and oxygen to produce gas biofuels.

As a result, the energy production in Ontario will not rely only on nuclear power which has limited Uranium sources but also will give the aperture to devel-

op a new ecological system that produces clean energy and helps to reduce the environmental problems.

There are several renewable sources such as biomass, hydro, wind, and solar that can be implemented to develop sustainable bioenergy production systems in different countries. Nonetheless, this research is focused on biomass as the primary source for electricity generation because Ontario has great availability of agricultural and woody waste, but this province has not developed a sustainable power system based on biomass. Hydro and wind bioenergy systems have been established in Ontario, for this reason, it would not be useful to research topics that are already developed. Analysis of the solid biomass availability and the required processes to produce biofuels will offer Ontario Power Generation a better understanding of the bioenergy efficiency and reliability to mitigate nuclear energy production.

Several effects are caused by the overuse of nuclear power in Ontario. One effect is the reliability of the energy generation system. The extraction of uranium

resource will affect the availability of the source for the generation of electricity since it is a non-renewable resource and the disposal of uranium is limited. Moreover, according to Ontario Power Generation, uranium is eco-friendly because of the low emissions of greenhouse gases; however, affirms that Uranium produces several polluting repercussions to the environment due to its radioactive composition and high-level waste storage. Another impact is the overconsumption of electricity in Ontario since the subsidy provided by the government encourages individuals to waste significant amounts of energy. For example, according to Atomic energy of Canada Limited (AECL) is a financial basket case that has received \$17.5 billion in subsidies already.

In conclusion, more research is needed in order to develop a sustainable power generation system based on biomass, which is a renewable source, in Ontario since the environmental impact generated by nuclear power production can be diminished considerably, and Canada has a high availability of biomass.

# Apple Disrupts App Development at Facebook, Google



**RATAN VARGHESE**  
3A COMPUTER

In the final days of January, Apple got into a bit of a spat with both Facebook and Google over the latter two companies abusing Apple's Enterprise Developer Program. The Enterprise Developer Program is intended to allow companies to distribute apps to company-owned iOS devices, without putting them on the App Store or needing to comply with App Store guidelines.

From 2016 onwards, Facebook was using this program to distribute an app called "Facebook Research". The entire purpose of the app was to collect data about the user's device usage. This data included browsing history, message contents, app usage habits, and location data. This is against the App Store guidelines, and Facebook had a

similar app named "Onavo Protect" that was banned from the App Store for similar data collection. However since "Facebook Research" was not on the App Store, the guidelines did not apply. Facebook distributed the app on its own, drawing in users with advertisements on Snapchat and Instagram targeting people between 13 to 35 years of age. The users, 5% of whom were teenagers, were each provided with a \$20 gift card for their participation.

On the 29th of January, Apple revoked Facebook's Enterprise Certificate, disabling the "Facebook Research" app on all iOS devices. Facebook had used the same certificate for all their internal apps and for beta testing apps on the App Store. While this may have caused a lot of chaos for Facebook's programmers, it was also entirely laid out in Apple's official policies regarding Enterprise Certificates.

Google had a similar app for iOS called "Screenwise Protect", but immediately discontinued it after Facebook's certificate

was revoked. They even posted a public apology for their actions. However, on the 31st of January Apple decided to revoke Google's Enterprise Certificate anyway. Throughout the day Google's programmers could not test beta versions of the Google Maps, Hangouts or Gmail apps for iOS. Google employees using iOS were also unable to use employee-only apps, such as internal transportation and cafe apps.

Google and Facebook both entered negotiations with Apple to have the certificates restored, and later in the day, their internal iOS apps were functional once again. However, Apple's Enterprise Certificate woes have not ended. Various other companies are using the Enterprise Developer Program to distribute pirated apps, pornography apps and even apps for real-money gambling. These shady developers are impersonating legitimate business in order to have access to the Enterprise Developer Program.

It's easy enough for an ordinary

consumer to avoid such seedy software sources. However, the spat between the silicon giants reveals a lot about them. For one thing, the depths that Facebook and Google will stoop to for access to user data: Facebook was essentially paying teenagers for private, perhaps even intimate, information. There is, of course, the other side of the coin: the level of control that Apple holds over the devices it sells. Even with internal enterprise apps, Apple has the power to do as it sees fit. It may have been a public good to eliminate "Facebook Research" and "Screenwise Protect", but that does not mean their decisions will remain consumer-friendly until the end of time.

Most telling of all is the resolution of the conflict. Facebook and Google had the opportunity to negotiate their way back to having their internal apps functioning. Companies with less clout would have probably not been so lucky, but the silicon giants must look out for their own.



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## The SFF Memorial Leadership Award Nominations

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The Leadership Award is granted to an intermediate-level undergraduate student in the Faculty of Engineering who has demonstrated outstanding contributions to the Faculty in the promotion of extra-curricular activities, including, but not limited to: Intramural Athletics, promotion of Engineering Society and Sandford Fleming Foundation events, competitions, etc., and for the support of associations, both on and off campus.

Nominations for the Memorial Leadership Award can originate from student groups, faculty members, or other individuals. A Letter of Nomination and Letters of Support from colleagues, faculty, and others familiar with the nominee's accomplishments are extremely important and form the major basis upon which the Executive Committee of the Sandford Fleming Foundation will form its decision. Nominations must be submitted to the Foundation by April 30, 2019 and/or before the last day of the student's 3A term.

The Memorial Leadership Award consists of a Certificate plus a citation, and an honorarium of \$1,000.

**Nominations Must be Submitted to SFF Office Manager by April 30, 2019**

E2-3336, Extension 84008, [sff@engmail.uwaterlo.ca](mailto:sff@engmail.uwaterlo.ca)  
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# The Ins of Waterloo Campus

## So You Never Have To Go Out



**SAATVIK WALIA**  
3B COMPUTER

With the snow days at their peak in Waterloo and the first year's being on campus for their first winter, it is important to travel safely through the campus, whether you are getting to a lecture room or going out on your 10 minutes lecture break to grab a snack. In this article, I will share a few tips and tricks that can help you plan your commutes within the campus and also allow you to make short stops for grabbing some healthy snacks on your way.

For all us engineers, mostly all the lectures are held in the east and the south-east buildings on campus and if you commute by bus, there are a bunch of different stops that you can walk to from the nearest building. Commuting into the campus on bus 7D, I usually get off at South Campus Hall stop and walk into SCH to grab my morning coffee. During my first year, most of my lectures were in

DWE and RCH and I would walk a few steps and enter DWE, go downstairs to the first floor and take the tunnel to RCH. Once you are inside RCH or DWE, you can commute to any engineering building without going out in the snow. The tunnel from the first floor DWE opens in the 2nd floor RCH, and if you keep walking straight on that floor you will enter into the 1st floor of E2. You can also enter to E2 from the overbridge on DWE 3rd floor which connects to the 3rd floor in E2. E2 is connected to CPH, so if you feel hungry on the way to your lecture room in E7, it is time to grab a snack from the CnD near poets in CPH. CPH is also one of the buildings on campus that are closer to the university plaza shops, instead of walking out in the snow all the way from SCH you can now walk to CPH comfortably and run to the plaza right across ring road. From the 2nd or the 3rd floor in E2, you can enter E3 and walk through the mechanical labs and take the stairs to the 3rd floor to get to E5 via the overbridge. Feel free to stop on the overbridge to take a quick selfie if there's a need to update your LinkedIn profile

picture otherwise keep walking to enter into E5 on the 3rd floor. E5 is connected to E7 on every floor. If you are already out of coffee from the Tims in SCH, you can grab another one at the cafe on the 1st floor in E7 and hopefully stay alive and up in your lecture. From E7, you can enter E6 using the overbridge on the third floor. For your lunch and dinner, you can easily go out to your favourite shop in the plaza from E5, E6 or E7.

Now if you are looking for a library to get some "actual" work done, you can walk outside from E5 to DC building, or you can take a bit longer but indoor route where you cross the E5 overbridge and continue to get to DC 2nd floor from E3. DC has a couple of Tim Hortons, one of which is an express. You can also grab food from Bon Appetite on DC ground floor. To get to DP library, you can walk out from RCH instead of taking the outdoor route and keep yourself safe from the black ice.

Another indoor route that one might find useful in their day to day campus commute is getting to SLC. For the most part, you can take an indoor route

to QNC and walk to the nearest SLC entrance from there. To get to QNC, you can go from E3 to 3rd floor EIT and enter Biology 1 and Biology 2 and finally take the overbridge from Biology 2nd floor to QNC 2nd floor. This route is also useful for students who take buses that usually run on Columbia street, as they can get to the bus stops on the west side of ring road by getting to STC from 2nd floor in Biology 1 building and walk outside to their nearest bus stop.

Lastly, by covering all these indoor routes, one should also take full benefit of the cafes and other eating services that come on their way. With a small amount of smart commute planning, you can enjoy a latte at Starbucks on one day and a coffee at Tims on another day. Or you can choose from various coffee flavours offered at different cafes around the campus and not get tired of eating the same things every day. The tunnels and the overbridges might not be the fastest ways to get from point A to point B, but they definitely help you get your steps in and keep you warm and safe from the snow outside.

# Saskatchewan vs. Canada

## The Carbon Tax Legal Dispute



**KIRSTEN EHLERS**  
1B BIOMEDICAL

Recently, I have been discussing Doug Ford's condemnation of the carbon tax. However, this issue extends beyond the border of Ontario. Saskatchewan is arguing that the federally-imposed carbon tax is unconstitutional. The court challenge began on February 13th.

This case is not about the validity of climate change. Lawyer Mitch McAdam stated that "The government recognizes that climate change is a serious issue that has to be addressed and that effective measures are required to deal with greenhouse gas emissions".

Instead, the province is concerned about whether or not Ottawa has the authority to impede on provincial jurisdiction of the carbon tax. The specific question asks if the entirety or part of the Greenhouse Gas Pollution Pricing Act is unconstitutional.

Saskatchewan, a province with large oil and energy sector, is being represented by lawyer Alan Jacobson. The province is requesting that the court rules that the Greenhouse Gas Pollution Act is unconstitutional and thus should be void. They cite that the policy treats provinces unequally because the policy changes depending on Ottawa's approval of the province's specific carbon-pricing plan. Furthermore, it "disregards the fundamental principles of Canadian constitutional law, in particular, the principles of federalism".

Additionally, Saskatchewan argues that the federal government's claims that the tax belongs to the responsibility of Ottawa for peace, order, and good government is "sweeping, radical and intrusive". Moreover, he added that "Ottawa is not a big brother over provinces".

In order for the federal government to use this peace, order, and good government clause from the Constitution, they must prove that the reduction of greenhouse gases is crucial to the safety of the nation.

Lawyer John Whyte who is the former deputy attorney general of Saskatchewan

is concerned about the increased use of the peace, order, and good government clause which had been rare for nearly a century. However, he believes that provided that Ottawa can prove this clause, the federal government has a much stronger case than Saskatchewan.

There are 16 interveners on the carbon tax case.

Indigenous groups including Alberta's Athabasca Chipewyan First Nation intervened on behalf of the federal government saying that the carbon tax impacts the treaty rights of Indigenous peoples. The carbon tax is necessary to reduce the impact of climate on Indigenous peoples and territories. Thus, Canada is constitutionally obligated to impose the tax so that provinces comply.

Attorney generals of Ontario and new Brunswick argue that carbon emissions do not comply with the criteria of national concern. They also suggest an upsetting imbalance between the federal government and the provinces.

The United Conservative Party of Alberta agrees with the sentiment of the federal government that carbon emissions are a national concern. However, they argue that the federal government's expanded jurisdiction will impede Alberta's attempts to reduce emissions on their own.

The Attorney General of British Columbia advocates on behalf of the Government of Canada. They argue that without a federal carbon tax, B.C. would be at a competitive disadvantage because they have already priced carbon to combat the negative impact climate change has on the province. They cite B.C.'s cement industry as an example.

Canada's EcoFiscal Commission and David Suzuki Foundation argue that carbon emissions are not only a national concern but a transboundary issue that needs immediate action.

A coalition of environmentalists advocates for the carbon tax because Canada is obligated to follow international commitments and uphold

the Charter of Rights and Freedoms. Carbon emissions threaten the "right to life, liberty, and security of the person".


The Canadian Taxpayers Federation argues against the carbon tax. They argue that the tax is ineffective and puts the affordability of energy at risk. Moreover, they insist the tax violates the not-so-original "no taxation without representation" principle.

The Agricultural Producers Association of Saskatchewan argues that the carbon

tax puts unnecessary strain on farmers who have already made great lengths to reduce carbon emissions.

SaskPower and SaskEnergy are concerned about the added costs of energy for consumers.

Other interveners include the Canadian Public Health Association, Canadian Environmental Law Association and Environmental Defence Canada, International Emissions Trading Association, and Climate Justice.



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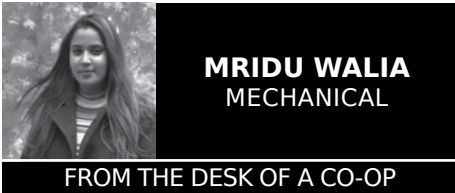
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## I Spy With My Little Eye...



Welcome, readers of the Iron Warrior, to this week's issue. As you may recall, we started a new rotating column in the last issue called "From the desk of a coop", where Gabrielle talked about some things she did during her past work terms to kill time when she had no work to do. So, in this week's issue, I will be taking over the column to talk to you guys about some of my past coop experiences and things that I did to kill time. To re-iterate what Gabrielle said in the last issue, obviously this does not mean to waste company time and resources, however, sometimes you find yourself sitting idle with absolutely no work to do. Here are a few things that were a part of my coop experience, few things I did to enjoy my work more and occasionally kill time. Keep calm and read on!

I was working as a Product Verification Specialist for one term in Burlington. Now, I am an international student and I have never lived in another city except Waterloo. So, I obviously have to move to this city for my coop and believe me, I was terrified. First of all, I did not find a place till the day before my work term started. So, I moved a day before and this left me with absolutely no time to explore the city,

check out the bus routes and commute time to my new workplace. Secondly, I am a Capricorn and therefore, I will lay the blame for my paranoia on my zodiac sign. You see, I need to FEEL prepared before a big day, I am not good at the let's-wing-it thing. My landlady was super nice, she welcomed me and made me feel at home. A bonus for me was when I found out she has a cat because I absolutely love cats. So, I go to bed at a reasonable hour, but because I was feeling so unprepared, I legit woke up every other hour that night and dreamt on loop that I have missed my bus! Ridiculous? I know! Naturally, I was not well rested for orientation, regardless, I was so excited for my first day because this was my first work term. It went well and after orientation, my supervisor took me and my co-worker out for lunch. When we returned, he introduced us to our Product Verification team. This may not sound as cool to you as it does to me, but I was the only female on the team. So, overall: I felt really happy and excited after my first day.

Okay, let me tell you about some of my job responsibilities, so you can better understand what I will be talking about next. My company had designed a new product and I was supposed to perform functional and regression testing on the product, you know, the typical Quality Assurance (QA) stuff. In simple terms: I had to find ways to break the software and then collaborate with the developers to push out new firmware. To sum up:

test, break, report, repeat! Capisce? I was assigned a separate lab to set-up all the hardware and equipment that was supposed to be tested. It took me one whole day, but I configured 3 PC's, 2 HD cameras, 6 pieces of AV hardware, routers etc. and connect countless LED screens and keyboards. At one point during my work term, I was testing so many pieces of equipment that I had to set up extra keyboards and screens. It was as if it was raining keyboards and screens in there. This is what my workstation looked like, once I was done setting up:

Okay, so now a tiny problem presents itself to me: I worked alone in the lab and it was really noisy inside - with all the equipment and fans and PC's running. So, I could never hear people come in and since my back was to the door, I never saw them coming either and so I would get startled very easily. So, I decided to set up the one of the cameras facing the door and route it onto one of the screens (as part of the tests I was supposed to be doing). Thereon, if anything was approaching the door, I could easily see it on the screen in front of me and not get startled.

Halfway through my work term, we had a huge exhibition coming up and my supervisor asked me to do performance tests while simulating a power outage scenario to see how long was the system recovery time and some technical stuff which I will not get into. This required me to power down all hardware in the lab for certain time intervals, ranging from

5 minutes to a max of 72 hours. For the smaller time interval cases, the frequency of the test cases was high to get a better estimation due to the larger sample size. It would get monotonous and boring at times because I was working alone in a lab. So, I decided to make things more interesting. I would play my favourite music on YouTube and route the audio and video onto the screens, which as you can see were surrounding the room. This was a part of the tests as well, so if there were any issues with the audio or video, I would be able to see it on the screens or listen for it, usually in the form of distortion. Occasionally, I would leave a movie running on one of the screens, when I was required to test for glitches in the video.

So, here is the takeaway: my job was pretty foreign to me because I had never worked with hardware or software; the thought of working on an upcoming project independently was exciting and terrifying at the same time; my workstation was suffocating and noisy; the cafeteria had two vending machines, so I thrived on 5 cups of coffee. Yes, it was terrible at times, but what got me through it was thinking about how this was an opportunity to be creative and how I came up with ways to entertain myself while making my work more fun and challenging; how cool it was to be the only female on the PV team and to be working on a project independently. Overall, it was an enriching learning work experience!

## Robot or Not?



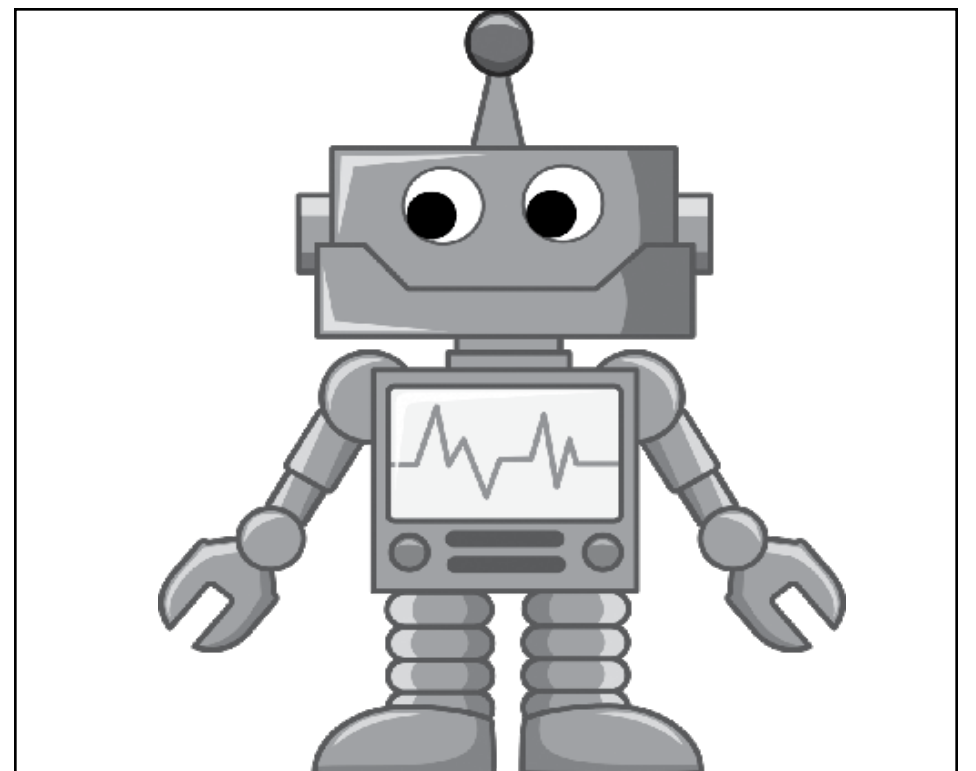
"Is it a robot? Robot or not?" These are the immortal questions that Jason Snell and John Siracusa have set out to answer. It is probably best to be upfront about this: "Robot or Not?" is not in any way, shape, or form an academic approach to the question in its title. There's no particular reason to think the lines these two men have drawn in the sand are significant in any way. In fact, the hosts very deliberately hide the definition they are using, to keep up the suspense of early episodes.

Why would the question of robot-hood be controversial in any way? Well, consider this: is a self-driving vehicle a robot or a vehicle? Any TRON student reading this would probably exclaim "Both!" but this podcast is entirely about meaningless distinctions: the less meaning the merrier. Eventually the hosts moved away from asking "robot or not?" and now use the podcast

feed to ask "sandwich or not?", "bagel or not?", "pet or not?" and similar questions. At this point, it should be clear what's going on here, the reason this podcast is listened to at all. This isn't a "History of Philosophy Without Any Gaps"-style search for truth. No, it is simply a Two Dudes Talking podcast, dependent on the listener's interest in the Two Dudes.

Or in this case, of the One Dude. Jason Snell doesn't reveal too much about his opinions on this podcast, although he has other podcasts with that purpose. Instead, he is focused on probing John Siracusa for data, trying to map the hills and valleys of the Siracusa mind. John Siracusa, for anyone unaware, is better known for the reviews he wrote for Ars Technica of each version of Apple's Mac OS X. These reviews, written between 1999 and 2014, sometimes ran for as long as 30000 words. He continues to make his opinions on Apple public in the "Accidental Tech Podcast". That isn't a Two Dudes Talking podcast... but a Three Dudes Talking podcast.

Back to the topic of "Robot or Not?", it is funny at times. However, it is perhaps more interesting as an illustration of what it



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means to be a geek. The podcast is at once pedantic and whimsical, simultaneously scientific and steeped in fiction. And while robots may seem to be an inherently unusual topic, the enthusiasm of the hosts extends to other, often mundane, aspects of human life. Is geekiness really defined by particular topics of conversation, or is it more of a state of mind, a style of presenting yourself, a sort of obsession with detail? Luckily for us, episode 137 of "Robot or Not?" focuses on the distinction between nerds and geeks. I always get that the wrong way around, so it's a good thing Siracusa's words were there to set me straight while I was writing this.

Given the prior experience of the hosts, it is no surprise that "Robot or Not?" has good audio, intro music, and outro music. The show actually cycles through different styles of intro music, which spices things up a little for binge listeners. Despite the style variations, there's no mistaking the intro for any other podcast because the

song is always dominated by the first seven words of this article.

"Robot or Not?" has the shortest episodes of any podcast I have listened to recently: Each one is less than 10 minutes long. However, it is worth noting that while podcasts such as "Accidental Tech Podcast", "Hello Internet", "Unmade Podcast" and the like last for hours, they only linger on a single topic for short periods of time. "Robot or Not?" is comparable to a single corner of "Hello Internet", or perhaps even a single column of "Iron Warrior". In fact "Robot or Not?" was partially spawned from Snell and Siracusa's prior interactions in the "Incomparable" podcast, a geeky panel show with multi-hour episodes.

"Robot or Not?" episodes are released about every two weeks. I wouldn't say I'm on the edge of my seat waiting for new releases. However I do sometimes binge listen, and other times find it a pleasant surprise sandwiched between two other podcasts in my playlist.



## Twitter: A Politician's Best Friend?



**KIRSTEN EHLERS**  
1B BIOMEDICAL

Twitter has irreversibly changed the political landscape. Most notably, there is the rhetoric of Donald Trump. Doug Ford has some fun tweets to read too. However, this is not just a dilemma for conservative politicians.

On February 3rd, Liberal MP Adam Vaughan from Toronto tweeted:

"Next he will go after young offenders & end "free school" in detention centres ... Instead of playing whack-a-mole; Let's just whack him."

The tweet was inspired by Doug Ford's statement that he was going to cut the full-day Kindergarten program. However, Adam Vaughan argued that the Kindergarten cut-back was a ploy to keep Ontarians distracted from the cut-backs to

OSAP for university students.

After the tweet, Vaughan retweeted images of Doug Ford's face on the moles of the popular Whack A Mole game. Moreover, the joke continued when Vaughan tweeted that a lawyer representing the moles of Ontario did not appreciate the comparison.

People got very upset that Vaughan was implying harm against the current Premier of Ontario. However, others argue that the tweet was a funny joke.

The question is: what standards must a politician uphold when tweeting?

If your average Ontarian tweeted what Vaughan tweeted, would it be different? Surely, the backlash wouldn't be a result of an average tweet. Maybe individuals should step back a take the joke. It's not a big deal.

On the other hand, the tweet could be interpreted to incite violence against the premier. Whacking does mean harm. In fact, the definition states that it could lead

to the killing of someone.

Society is experiencing an upward trend of political correctness. That is a whole debate in itself. Meanwhile, politics is transcending the legislature. Social media is a crucial platform to inform and communicate with voters.

The problem with twitter is that communication is instant. There is no need for comments to be screened before they posted. Some people like that. It gives insight into who politicians really are as opposed to the sentiments of their campaign coordinators. However, this tweet would have never been seen as an appropriate statement by an MP. And asking Ford to be 'whacked' isn't exactly kind words.

Maybe there's no space for political correctness in politics. Maybe politicians, including influential ones should be allowed to say anything they want on-line. Even if it is offensive, the only thing they are destroying is their own careers.

In this context, the tweet doesn't seem to be a big deal. It was a joke and Doug Ford isn't necessarily the most well-liked individual in politics right now.

What if that comment was applied to another individual or a group of people? Is it perceived as a threat then? What if Adam Vaughan used A Duck Hunt shooting metaphor instead. (Duck hunt is another arcade game where players try to shoot ducks down from a wall). It's a joke, but telling the public to shoot the Premier is way out of line.

I'm not saying that this tweet is wrong, or even right. What I'm saying is that there is a serious need for some rules to be made. What is appropriate to tweet on-line? Do we hold politicians to higher standards than ourselves? Is the intention more appropriate than the words themselves?

The point is that Twitter is changing the face of politics. 180 characters can lose or gain a vote for a politician. So what is really okay to tweet online?

## The Anti-Vaxxer Movement and The Measles Outbreak



**SAMRIDHI SHARMA**  
3B CHEMICAL

Have you heard? Measles is back! Measles is a highly contagious viral disease. The symptoms of measles include fever, cough, runny nose, and inflamed eyes. Small white spots form on the inside of the mouth and a flat red rash forms on the body. Complications related to measles can include pneumonia, inflammation of the brain, seizures, deafness, brain damage, and even death. Because measles is airborne and spreads by coughing and sneezing, there really is no prevention except for the measles vaccine. Once a person is infected, no specific treatment is available. Symptoms are treated using antibiotics, rehydration solutions, and healthy foods.

In 1980, 2.6 million people died of measles. This number dropped two 73,000 in 2014. 2017 took a sharp turn as the rates of measles related deaths increased due to a decrease in immunization.

"Vaccine hesitancy" is a real thing. It refers to a delay in acceptance, or complete refusal of vaccines despite availability. The anti-vaccination movement began in France in 1763 and still continues

today. In 1763, France banned inoculation because Gatti, the Italian Doctor who introduced inoculation in Paris did not properly quarantine the inoculated people, thereby risking the lives of many Parisians. This made sense for the time. In 1998, a British doctor released a research paper investigating the relationship between the MMR (measles, mumps, and rubella) vaccine, and autism. In 2011, the paper was found to be fraudulent but the hesitancy around the vaccine remained. Also in 1998, the "Green Our Vaccines" movement came into being. It was a public campaign to remove thimerosal, a compound used as a preservative in vaccines, and other toxins from vaccines. Despite there being no evidence of harmful side effects, the U.S. public health and medical organizations agreed to reduce or remove thimerosal from vaccines. Both these instances from 1998 are the basis for the Anti-Vaccination Movement today.

By 2000, measles was eliminated in the U.S. and there were no cases of measles transmitted by patients within the U.S. In 2007, Jenny McCarthy, an actress, announced her son was diagnosed with autism, blaming it on vaccination. She became the face of the anti-vaccination movement. 2013 to 2015 saw a sudden spike in the number of people suffering from measles in the U.S. The majority



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**Toddler Suffering From Measles**

of people who got measles had not been vaccinated. The first person to die from measles in 12 years passed away on July 2nd, 2015 in Washington.

Currently, there is a measles outbreak in British Columbia. This is directly

linked to a family travelling to Vietnam, while the family's three children had not been vaccinated against measles. In British Columbia, it is not mandatory to be vaccinated to attend public schools. In Ontario, Manitoba and New Brunswick, the vaccine is mandatory unless an exemption is issued.

In the U.S., more than 270 people across the country have been infected by measles. It is all being blamed on vaccine hesitancy. This is putting all those people in jeopardy who cannot be immunized, such as people who are allergic to the vaccine and new born babies. These people depend on the herd immunity to stay protected from measles. When immunisation rates fall, as has happened in the past few years, herd immunity can break down leading to an increase in the number of new cases.

If you are unsure of your immunization status, check with your doctor. They may be able to pull your immunization records. If you are still uncertain, it is suggested to get a booster shot from your local health practitioner. Keep yourself safe from this epidemic, and keep others safe in the process.

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# Anxiety vs Panic

## Know the Differences and How to Deal with Both



Today I will be mainly be talking about the differences between an anxiety attack and a panic attack because more often than not, people talk about it as if they are the same thing and use the terms interchangeably in a conversation. However, that is not the case as even though the symptoms for both anxiety and panic are kind of overlapping, they have key characteristics that distinguish one from the other. Therefore, we will be beginning with an overview of the symptoms experienced during an anxiety and panic attack respectively, and then go on to outline the main differences between them. We will also discuss some ways to deal with both anxiety and panic attacks, including home remedies and simple lifestyle changes you can implement, as dealing with these issues can be both difficult and disruptive.

Anxiety attacks are more gradual and less intense as compared to panic attacks. Some of the emotional symptoms for an anxiety attack include - stress, restlessness, nervousness, fear, irritation; whereas some of the physical symptoms would include: shortness of breath, muscle tension, disturbed sleep, headache, sweating etc. However, these symptoms do overlap with the emotional and physical symptoms experienced during a panic attack along with some key ones that include: chest pain, heart palpitations, shaking/trembling, abdominal pain, intense pangs of fear, nausea etc. In the moment, it can often feel like you might be dying from a heart attack. Panic attacks are generally unexpected and sudden and bring on a sense of overwhelming and intense fear. Sometimes, an anxiety attack can lead to a panic attack too. Allow me to draw on my personal experiences and share this with you.

It was my first year at the university and I was supposed to participate in a presentation on our team project. The entire week I spent preparing for it, I remember being constantly anxious, eating lots of ice-cream (oh common? It was summer, and I was really stressed) and just pacing back and forth as I was trying to remember the lines for this presentation. I could not stand still in one place, I was so nervous. But I practiced a lot and finally began feeling confident that I might be able to pull this off. So, fast forward to the day of the presentation, my team and I have been watching our classmates present their projects. When it's our turn to present, I get so majorly anxious as I walk towards the podium. My anxiety attack had turned into an intense panic attack because I have stage fright. I remember feeling nauseous, dizzy and light-headed as I waited for my turn to speak, and then when it was finally my turn to present, I remember my legs going numb and feeling this blinding abdominal pain. I wanted to sit down to catch my breath because I literally could not breathe. Needless to say, I didn't do a great job presenting that term. So, just wanted to share this little anecdote before I continue talking about the differences between anxiety and panic attacks. But don't worry, I will be sharing another incident that happened with me later on, so keep reading!

So, we now know how the symptoms can align as well as differ between anxiety

and panic attacks. But what would also help, is to look at the clinical differences between these two terms. The Diagnostic and Statistical Manual of Mental Disorder, 5th edition or DSM-5, acts as a standard and is used by mental health professionals to diagnose mental illnesses. According to VeryWell Mind, the DSM-5 uses the term "panic attack" to describe the hallmark features associated with the condition known as panic disorder, which is categorized as an "anxiety disorder". The term "anxiety attack" is not defined in the DSM-5. Rather, "anxiety" is used to describe a core feature of several illnesses identified under the headings of generalized anxiety disorder (GAD), obsessive-compulsive disorder (OCD), post-traumatic stress disorder (PTSD) etc.

Alright, Ms. Walia, why don't you Hakuna Matata? Well, if you have made it so far, thank you for being so patient. So that was a lot of information, right? Let's give you a breather and discuss easy home remedies and lifestyle changes along with treatment options. I have GAD and here are a few things that have worked out for me and some people I know. Again, I am not a mental health professional, however, I would definitely like to share things that helped me deal with anxiety and panic attacks, in the hopes that it would help someone else out there.

I found out that drinking cold water or taking a walk in the cold really helps me to calm down and reconnect with my body. Deep breathing, I know it sounds cliché, but trust me when I say, it works! Panic attacks are commonly characterized by hyperventilation, which can amplify emotions such as fear, making it worse. By practising deep breathing, you are teaching your body how to control your breathing which can significantly reduce the hyperventilation. According to Healthline, focus on taking deep breaths in and out through your mouth, feeling the air slowly fill your chest and belly and then slowly leave them again. Breathe in for a count of four, hold for a second, and then breathe out for a count of four. I know we have very busy lives, however, try and exercise on a regular basis. I am sure you all know the benefits to exercise, however, a quick recap: Having an active lifestyle not only keeps you fit (Confidence++) but also, releases endorphins in our systems. According to mindbodygreen, even moderate walking helps boost cognitive functions like reasoning, memory, attention span,



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and the expansion of information and knowledge.

I find that taking a hot shower or drawing myself a luxurious bath with salts really helps me deal with stress. If you are prone to panic attacks, have a travel size bottle of lavender oil on you. When you feel like you're overwhelmed with anxiety or it feels like the onset of a panic attack, rub a few drops on your arms and just breathe in the scent. Lavender scent has stress-relieving and soothing qualities which, according to research, lowers the heart rate and blood pressure.

Enforce positive thinking by recognizing behaviours that affect you negatively. For example, consider this: you stepped on black ice, slipped and sprained your foot. Instead of saying, "Why does this happen to me?", consider saying, "Okay, remember to walk like a penguin next time!". Lastly, and this one is important, be forgiving of yourself. I strongly believe that things happen for a reason. Yes, when your life starts falling apart like dominos tiles, it's difficult to believe that. I was very self-critical of myself and would internalize everything that happened in my life. But with time, I would realize, well this wasn't really my fault now, was it? So, I am pretty new to this myself, but I try and forgive myself if something is not going the way I anticipated it to go. I tell myself: okay, take a minute and analyze what did you that was wrong and how could you do it

better the next time? I know it is not as simple as that sounds, but if you get in the habit of thinking positively, it will become a behaviour eventually. I know I am going to try and implement this in my life, and I strongly encourage you all to try the same, because if you don't love yourself, then who will? Forgiveness is a big part of loving someone, so answer me this: Do you love yourself enough to forgive yourself?

Alright! So, remember that other incident I mentioned about 750 words ago? Here it goes: I gave a presentation last term as part of my work term experience. I am proud to say it went very well! Naturally, I was anxious, but because I had been implementing positive behaviours and my coping mechanisms, I prevented that anxiety from turning into a panic attack. End result? I delivered a great presentation in front of the entire staff and 26 other coops and got a great evaluation from my supervisor too. It was an amazing experience altogether! Which brings me back to the conclusion: anxiety and panic attacks are different based on the intensity and longevity of the symptoms, but with the correct combination of treatment i.e. coping mechanisms and therapy etc, it can be a lot easier to deal with. To my readers, I hope you enjoyed reading this article and had a good reading break. Also, if you have midterms coming up, I wish you good luck!

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# Disorientation: The Best of the Best Pranks from 2019



All the engineering programs tried to claim E7 for themselves with banners.



Chemical engineering, true to its nature, made a packed bed reactor using only 6000 balloons.



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# There's a Lot Going on in the CFES



**GRANT MITCHELL**  
VP COMMUNICATIONS

Hi everyone, I hope all of you enjoyed your reading break. Over the reading break, the CFES has been jam-packed with preparations for the last two conferences of the school year.

The first on the list of conferences is the Conference on Sustainability in Engineer-

ing (CSE) taking place in Prince George, BC. By the time you read this, we'll have taken our delegation of 5 to the conference to learn all about this year's theme, "The Triple Bottom Line". If you want to learn more about CSE and the other initiatives of the CFES, I recommend that check out this year's conference website at [cfes.ca/cse](http://cfes.ca/cse).

Next up on the list of CFES conferences is the Canadian Engineering Competition (CEC). CEC is coming to Waterloo from March 1st - March 4th. There are current-

ly calls for volunteers out to help run the competition. They are looking for volunteers to help run events, translate, and set-up for the competition. It's going to be an awesome event and it's a great opportunity to meet engineers from across the country and expand your network. Everyone should take this opportunity to and apply using this link: <http://bit.ly/CECVolunteer>

Since we last spoke, we also took a group of ten delegates to the First Year Integration Conference put on by ESSCO and hosted by Laurentian University. Our

delegates represented the University of Waterloo excellently and had the chance to network with students from all across Ontario. To find out more, I recommend that you look out for our report written by our delegates coming in the near future. Make sure to check out the EngSoc website in the near future for the new conferences page where all of our applications and conference reports will be located.

If you have suggestions please feel free to come by CPH 1327 or drop me a line at [vpcomm.b@engsoc.uwaterloo.ca](mailto:vpcomm.b@engsoc.uwaterloo.ca).

## Here Comes the Sun (We Hope)



**ASHLEY CLARK**  
VP STUDENT LIFE

Welcome back, I hope midterms went well! Now that we are in the latter half of the term I thought I would share some more upcoming events that I am excited about!

In the next few weeks, there will be an event for every taste. Whether you're look-

ing for a professional development activity that will let you add some valuable skills to your resume, to social events and community outreach activities, there is a wide breadth of topics to choose from.

On February 26, the second SolidWorks Workshop of the term will be happening. This is a great chance to spruce up some rusty skills or to add a new line to your resume for continuous round job applications! We will also be running a Soldering Workshop the next week on March 7, if

you are looking to gain some more hands-on skills. We will be running the second Resume Critiques event of the term on March 5. With all of your newfound skills, your resume is sure to need a boost and sharing it with upper years is a great way to make that happen.

If you are interested in making a difference in our community, we will be running our termly Blood Runs event on February 27. Join us as we take the trip to donate blood to Canadian Blood Services. If do-

minating blood has you feeling philanthropic, you may also wish to join us on March 5 as we volunteer at the KW Food Bank!

Also, a quick reminder: March is National Engineering Month! This year, we will again be taking part in the Construction event being held at the Conestoga Mall. If you are interested in helping out with this, or if you want more information about any of the events listed above, check out our Facebook page at <https://www.facebook.com/uwengsoc/>.

## Snow day Snow day SNOW DAY

### Some Issues and Benefits to Engineering Students



**BENJAMIN BEELEN**  
VP ACADEMIC

February 6th and 12th have both had University closures and let us talk about what that means! First off, the class time is going to have to be made up. As engineering students, we have to see a strict number of hours from P Eng professors and for a course to count for its "accreditation units" it also needs to have a certain number of hours. You can bet that this time is going to be made up, at least officially made up, before the end of the term as there is a Canadian Engineering Accreditation Board visit this fall. To learn more about

CEAB, come to Council meeting number 4 where Christine Moresoli will be visiting to talk about accreditation and answer questions on what we as students have to do.

Back to snow days, they are wonderful at the time of, but they lead to a lot of other administrative challenges as well, especially at Waterloo. All interviews, meetings, and services are also cancelled. Now, these do seem like a small hurdle, but CECA is already dealing with so many interviews per day that their personal offices are being used for interviews during the day. On top of that, while we are all enjoying the snow day, people from CECA are trying their best to reschedule a possible 1000 interviews with hundreds of employers. We are at the peak of first-round interviews, and the clock is tick-

ing for that March 1st ranking date.

Now services, health services are operating on skeleton staff, and as far as I could find online, counselling and other mental health services are also closed or on skeleton staff. That means if you're waiting for weeks to get in to see a counsellor, that just got moved to an unknown time. I don't have good solutions to this problem, other than phoning in, but there is a reason I'm saying all these bad things about snow days.

This explains why the university has in the past resisted snow days or closures even when neighbouring Universities have been closed (such as the Laurier terrorist threat incident). It is hard enough for schools to reschedule classes to make up time, but the interview weight of the Co-op school that is

Waterloo adds another significant challenge. At the end of the day, snow days are very expensive for the school.

Does this mean the school doesn't care for the safety of their staff and students? Of course not. The university has shown that when the weather is truly awful, they will close. But if you're looking for reasons on when the university remains open during rough weather, read the above.

On a personal note, I've managed to hit the snow day lottery and had interviews scheduled on both snow days. Also just those two days I've missed 11.5 hours of class. Though this is a pain in the behind, I enjoyed the hell out of my snow days! There is something about studying, and playing CIV 6 all day that feels good ya know?

### Upcoming Events Calendar

Wednesday Feb 20	Thursday Feb 21	Friday Feb 22	Saturday Feb 23	Sunday Feb 24	Monday Feb 25	Tuesday Feb 26	Check out up-to-the-day event postings on the EngSoc website at <a href="http://engsoc.uwaterloo.ca/event/calendar/">engsoc.uwaterloo.ca/event/calendar/</a>
					EngiQueers 6 - 9 PM POETS	SolidWorks Workshop 5:30 PM - 6:30 PM Multi Media Lab	
Wednesday Feb 27	Thursday Feb 28	Friday Mar 1	Saturday Mar 2	Sunday Mar 3	Monday Mar 4	Tuesday Mar 5	
Blood Runs 3:00 PM - 5:30 PM  EngSoc Council Meeting #4 5:30 PM - 7:00 PM E7 3353		Fourth Year Friday 12:00 PM - 4:00 PM POETS	Dungeons and Dragons 1:30 PM - 5:30 PM POETS		EngiQueers 6 - 9 PM POETS	SolidWorks Workshop 5:30 PM - 6:30 PM Multi Media Lab	

# Point Vs. Counterpoint

POINT

**LEAH KRISTUFEK**  
CHEMICAL

The University of Waterloo has had two snow days in the last two weeks. TWO! While the university has had completely valid snow days in the past be it resolved that the most recent snow days are setting a poor precedent for ongoing snow days.

As an undergraduate student, I battled my way to campus rain or shine, snow or sleet. There were days when students could literally cross-country ski directly to class and the university was still open. Unfortunately, I was on co-op during the only snow day to take place during my degree but I did get the email from the graduating class of 2013 telling me that while the school was closed, engineering classes were most definitely still open.

I always thought the reason the university stayed open was because the co-op program and the need to have a certain number of teaching hours for engineering accreditation in all 3 terms meant that the university had less wiggle room than others. During the Feb 2nd 2015 non-snow day, provost Ian Orchard explained that they chose to keep the campus open based on the fact that plows were out, city buses were running and plant ops was successful at keeping walkways on campus clear. That assessment proved valid as students made it to campus despite Laurier, Conestoga college and Guelph university all being closed.

Realistically most programs at the University of Waterloo are intensive enough that the majority of student live within walking distance of their classes. We have a low population of students commuting to campus unlike universities like York or the Scarborough campus of U of T where many students live at home. At least a couple of students will make it to class, and if there's nothing else UW engineering students are good at, it's sharing notes with our cohort.

The University of Waterloo does not always show its love for its students. The university believes firmly in short term suffering for long term gains. They chose to renovate both libraries at once offering only earplugs as compensation, they cleave the campus in pieces with endless construction, FEDS was repurposed and the Bomb Shelter was suddenly and unceremoniously closed. However, in the case of inclement weather, I believe the university expects us to use our common sense. If a student commutes in from afar they might have to miss a lecture or two but the majority of students will still make it to campus. Maybe the university simply needs to create better guidelines for accommodating students and staff making longer commutes. Snow days are different for universities compared to High schools and elementary schools. It's not just that University snow days inspire the mixed feelings and mild panic of re-arranged schedules. The public-school system is in control of fleets of seatbelt lacking buses and is responsible for the wellbeing of thousands of kids who can't be left home alone. One high school snow day in my youth we were sent home in the middle of the day, BUT, they sent two rounds of buses because they couldn't send elementary students home before the end of the day in case there was no one home to meet them at the school bus. Whether they call it a snow day or not the University is are only really making a suggestion.

## The University Should Have a Better Criteria To Pick Snow Days

So it is true, snow days are a tricky business. The decision to close the university has to happen early enough to get the news out, depending on the forecast that might entail closing the university even though the weather hasn't gotten nasty yet. The provost has to account for the length of time students will be on campus once they arrive. As engineering students who often stay on campus into the early hours of the morning, it is easy to miss developing weather, and the university has to keep that in mind.

Let's take a look at the few snow days that have happened in the past, although to be fair Waterloo has terrible timing with snow days. Starting with these past two days, February 6th and 12th. Environment Canada had issued storm warnings due to the threat of multiple types of severe winter weather including freezing rain and snow conditions. One possible consequence of freezing rain is power outages and downed electrical wires due to ice build up on wires. Several ice storms have completely shut down Toronto.

Now let's move onto this past April during exams several days were partially cancelled. Since cars were literally blown straight off the road by the winds and some Ontario highways were closed, these snow days were completely warranted. The university simply couldn't win. There was frustration from some students and staff that the university opted to open at noon on Monday, April 16th, but students were also frustrated about how their exams were being re-scheduled and the implications for travel plans. School closures during exams are more important since skipping exams can make or break passing a course. Safety wise even though the school re-opened at noon the police were still warning against anything but essential travel and Conestoga and Laurier remained closed. Prior to 2018 UW hadn't closed in April since 2003.

The internet does make school closures difficult to find but to my best knowledge, the most recent weather-related school closure prior to April 2018 was February 8th 2013 during IRS. Inconvenient yes, especially since disappointed 4th year students probably had to be forcibly led off campus.

Winter weather is dangerous, it should be taken seriously but that does not mean that the university should completely close at the slightest threat. If anything, more flexible policies for attendance on bad weather days are in order to avoid disruptions to busy schedules. Between interviews, assignments, projects, classes and midterms students are busy enough without shifting deadlines due to snow days. Studying for midterms or finals only to have them cancelled and rescheduled results in undue stress.

Hopefully, it has now become apparent that as intelligent adults we can make our own decisions about travelling dangerous weather. Closing the university is a tool that should only be used in extreme circumstances. As an institution, it can be easy to become too cautious about safety and to worry too much about liability. However, in a dynamic university where students disperse at the end of the term to every corner of the world on co-op too many snow days really do cost money.

**SAMRIDHI SHARMA**  
3B CHEMICAL

I am sure that we are all aware of the unthinkable, unimaginable, and unfathomable event that has occurred, twice now, may I add, all in a week's time. Yes, the University of Waterloo, for the first time in the history of the University, shut itself down twice in a week. I realize that people are very divided about the whole thing. Some believe that it was totally unnecessary. Snow has existed in Canada forever and the university has never closed before, so why start now? There are others who think that safety should be a priority and snow days really should be in place when weather conditions get intolerable. I agree with the latter.

Reddit tells me that the university last shut down twice in a semester in 2007. Never, before has it been closed twice in a week. Maybe we should consider climate change here. It is no secret that the climate has drastically altered in the past few years. Blame pollution, greenhouse gases, or whatever you may, the point is that things aren't the way that they used to be. With changing times, comes the need to change. With Mother Nature trying to prove her point about being misused, who are we to come in her way? The university definitely did what it needed to, and I couldn't be happier that my safety was not at stake.

Let me paint you the picture of my commute to campus everyday. The walk from my apartment to the bus stop is about four minutes on a good day. Lately, it has been taking ten. Why, you may ask? Because of ice on the sidewalks, and the snow in my eyes. In this really cold weather, pedestrians really do get the short end of the stick. Let's be real, the sidewalk cleaning guidelines are barely enforced in this city. In a stretch of about a hundred meters, only about twenty meters worth of sidewalk has been shoveled in front of my apartment. I have almost fallen several times and wiped out a couple times because of this. But I digress. My point is, it is bad enough with the un-shoveled sidewalks and the snow, imagine what could happen if you throw wind, rain, and hail into the mix.

So, does it not make sense to close the campus in case of severe weather? Would you really rather waddle on to campus like a penguin? I know we have all seen negative forty-degree weather and it seems like it is worse than when the university did shut down, but the severe weather warnings are issued when various elements of the weather come together to make it severe. So, it may seem like it is not as bad, but really, if you step outside you might realize that it is worse than you think, and not just for pedestrians. People who drive are also met with really bad driving conditions on these days, increasing the risk to their lives and everyone else on the road. Especially in a small city like ours, where the inner roads are sometimes left uncleaned for the longest time, it is very risky to drive when there is no visibility and there is ice on the road.

When the university shut down twice in a week, we all were very confused. What happens to our labs, interviews, tests, assignments, classes? The list could go

COUNTERPOINT

on. While there were many questions, the snow day was in place for our own safety and I was a little bit relieved to be honest. While saluting those of you who would risk your lives to obtain the education and learning that the school promises, there are those of us who also appreciate the fact that our safety takes priority above the school's rigid work culture.

Nick Manning, the associate vice-president of communication for UW told CBC News, "We're kind of aware of our own reputation as the place that never closes... We've certainly heard from the community over recent years and have thought hard about the circumstances under which we need to make decisions about the operation of campus." It's that simple. The university takes these closures really seriously. If they are shutting down, it is because the safety of the staff and the students are at stake.

When the university is closed on snow days, it is posted to the university website around 7:00 am. It is best to have checked the weather at night to see if there are any warnings, and if there are, check the university website before heading on to school the next day. Even if you don't, I am sure someone else did and your social media would be flooded with snow-day related memes in the morning. Either way, be sure to stay informed.

Finally, going to Waterloo almost ascertains a no-break culture. Especially if you are in engineering you have already kissed your summers goodbye and the two week breaks between classes are barely enough to resurface from the depth of the university. So, when the university shuts down like this, unexpectedly, for a snow day, we are all a little happy on the inside. Sure, we will have to make up that time on another day but right now, this means another day to prepare for the midterm, or another day to submit an assignment or a lab report. Why would you curse the gods for giving you this wonderful opportunity?

The fact is that winter has been a little extreme this time around. It may seem like the university is declaring a snow-day for no reason at all, but the reason is our safety. So, take this time to catch up on studies, or not. While the snow days come at a cost of having to be replaced over a weekend, I am glad that I don't have to risk my life for the learning that the school provides. To all you folks, stay safe, stay inside, and stay warm on snow days, if there happen to be any more.



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**Struggling Through the Weather**
**Editor's Note:**

*Point Vs. Counterpoint* is a feature meant to stimulate discussion on thought-provoking topics. The views and opinions expressed here do not necessarily reflect those of the authors, *The Iron Warrior*, or the Engineering Society.

# The Heartbreaking Tale of Child Brides

## It is More Prevalent Than You Think



**SAMRIDHI SHARMA**  
3B CHEMICAL

DID SHE JUST SAY THE F-WORD?

This column is usually my rant about sexist things that bother me personally. I have come to realize that there are people out there, that I may not know, but who still face issues that I cannot relate to. My goal is to educate myself and you readers about these issues. Spreading awareness, I believe, is the first step to making a change, and we all need to come together for that. It is going to be a learning experience this time around as I talk about child marriages. Child marriage is a truth many little girls around the globe are facing today. It is most prevalent in developing and under-developed countries.

According to Girls Not Brides, Niger is the country with the highest prevalence rates of child marriage with the percentage of women 20-24 years old who were first married or in union before they were 18 years old being 76%. 28% of girls in Niger are married before the age of 15. It has the 14th highest absolute number of child brides – 676,000. Girls from the poorer households are married off to richer households as a survival tactic. Younger brides are considered more attractive so polygamy is prevalent as child brides usually become fourth or fifth brides. Purchasing of girls is also not uncommon. Girls are perceived pure before they get their first period, and therefore, are married off before that happens.

The Central African Republic takes second place in the prevalence rate of child marriage. 68% of girls are married before the age of 18 and 29% are married before the age of 15. More than 75% of adult women in the Central African Republic are able to read and write. Girls' only expectation is to get married and have children. Some families have even sold their daughters for a price to increase

income. Legally, in this country, men can take up to four wives, and younger wives are considered more prestigious. Female genital mutilation and cutting are also regarded as a sign that the girl is ready for marriage.

Chad isn't far behind. Here, 67% of girls are married before the age of 18 and 30% before 15. In 2015, Chad increased the legal age of marriage from 15 years to 18. However, according to their Criminal Code, customary law marriages of girls over 13 years are legal. As in the Central African Republic, female genital mutilation and cutting is seen as a sign of readiness for marriage. Some girls are forced to marry their attackers in case of harassment. In 2013, it was found that the driving force of child marriage is the failing economy and education system. On average, girls without any education got married at the age of 16, as compared to girls who have completed secondary education who got married at 19 on average.

In the continent of Asia, Bangladesh takes the lead. 59% of girls are married by the age of 18 and 22% by the age of 15. It has the 2nd highest absolute number of child brides – 4,451,000. The main reasons that girls in Bangladesh are subject to child marriage is because of poverty. Dowry prices tend to increase as women grow older, and "less attractive". Therefore, parents tend to marry off their daughters earlier as they don't have much dowry to give. Bangladeshi girls without education tend to get married at 15, compared to 20 for those who have completed secondary education. Another reason for child marriage is survival. Since Bangladesh is prone to flooding, families in insecure regions marry off their daughters earlier. There have also been reports of refugee families marrying off their daughters to access food rations and to protect them from sexual violence in refugee camps.

In the Americas, Brazil has a child marriage prevalence rate of 36% and 11% of

girls are married off before they are 15. There is no minimum legal age of marriage. Some of the child marriages are surprisingly self-initiated. Girls believe that they can only influence their life using marriage as a tool. Marriage is also seen as a passage to adulthood, so girls take on adult responsibilities and raise children at young ages. Some girls are even married off to drug traffickers for protection against violence. Some men desire brides who are "more attractive" and easy to control and therefore demand child brides.

India, however, takes the cake for the absolute number of child brides with a whopping 15,509,000. It is 14th in terms of the percentage of child marriages, 27% of girls are married before their 18th birthday, and 7% before their 15th. The legal age of marriage in India is 18 years. Girls in poorer households are sometimes perceived as a monetary burden and often married off at a young age as it lowers the dowry that the parents have to pay. Some girls are even promised in marriage before they are even born! At puberty, these girls who were betrothed at birth are sent off to their husband's home in a send-off ceremony. Many girls are seen as someone else's property (it is customary for women to move into the husband's family after marriage) and are often not sent to schools as their main expectations are to raise children and do housework. It is not uncommon for girls to get married for protection against violence and rape. However, child brides in India are at a greater risk of sexual and physical violence within their marital home.

This list is in no way complete. There are so many countries that turn a blind eye to the customs of child marriage. The reasons are mostly along the lines of gender inequality to begin with. In many of the places where child marriage prevails, girls are perceived as inferior to boys. Tradition plays a huge role as well since in many places child marriage is a tra-

ditional practice. Female genital mutilation and cutting is a harmful traditional practice that is barely ever questioned because, well, it has been in practice for centuries. Poverty is a common reason throughout most of the countries. In poor households, marriage is seen as a ticket to a secure future. The reality, more often than not, is actually the opposite. Especially in communities where dowry or bride-price is a thing, people prefer to marry off their daughters at younger ages because they get a better price that way. Marriage, in some parents' eyes, is a way out of sexual and physical violence for their daughters. The reality, again, is quite the opposite for a lot of young girls.

It is pretty appalling how women are perceived in these cultures. It is upsetting to see how objectification is deep-rooted and even customary. It is okay for women to be placed a price on, is what is being taught and propagated in many of these countries. These young girls, for the most part, have no choice in who they want to become as an adult. There is no question of what is right. So much pressure is put on the purity of the girl, that their true innocence, their childhood is lost in the process. Imagine if this was a reality where you live. Imagine if you were one of those young girls being sold-off in marriage. Imagine if your own parents saw you as a burden.

Now you may ask me, what can we do to make it easier for these young girls? In my opinion, spreading awareness is the first step. These girls deserve so much more than just a marriage. If you can do more, sponsor a child. There are organizations such as Girls Not Brides and Plan International which connect you to young girls in faraway lands at the risk of being child brides. You can sponsor their education and ensure that they aren't married off young. Every little step counts! Last but not least, educate yourself so you can educate others. This is a real issue in the real world and if we don't raise our voices about this, then who will?



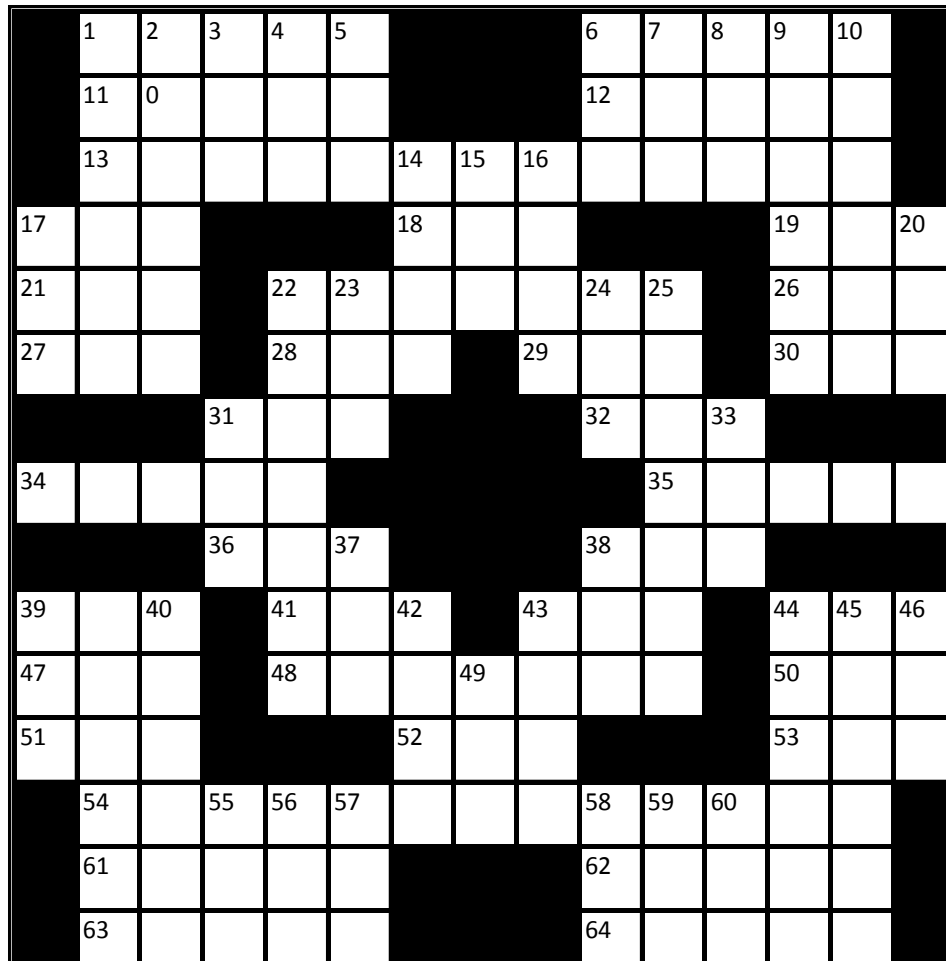
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Child Marriage is a Serious Issue in Many Parts of the World

# The Iron Crossword

## Grey's Anatomy

**KIRSTEN EHLERS**  
1B BIOMEDICAL



**ACROSS**

- 1: Larvae of a neuroparasite
- 6: Season 10 Episode 20: Go it \_\_\_\_
- 11: Ellis Grey had early \_\_\_\_ Alzheimer's
- 12: what an episode of Grey's Anatomy is called when CTV plays it again
- 13: McDreamy
- 17: Unit of weight in India
- 18: Mneumonic for tangent in right angled triangle
- 19: Season 3 Episode 8: Staring at the \_\_\_\_
- 21: Former name of tangerine
- 22: With 34 across, the name of the hospital where Dr. Grey was an intern
- 26: Gauss error function
- 27: Infection of sebaceous glands of the eyelids
- 28: To do this is human
- 29: What is for horses
- 30: The type of shells she sells
- 31: Acronym of a non-polar, apliphatic amino acid

**DOWN**

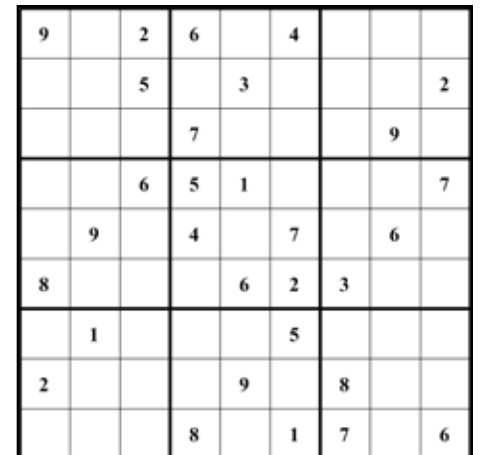
- 1: Mice, hamster, squirrels
- 2: Measured in Joules
- 3: Acronym for what "Battleship Island" does
- 4: Acronym for elements with same charge
- 5: Opposite of AFK
- 6: Currency in Argentina before 1985
- 7: Town in India; previous capital of Hialayn kingdom
- 8: Swedish subunit of currency
- 9: The staff who went on strike in season 2
- 10: To last
- 14: What 19 across is
- 15: Opposite of cold
- 16: Not difficult
- 17: Relationship between Lexie and Meredith
- 20: Movie awards in India
- 22: Third person singular present form of to choose
- 23: A long period of time
- 24: Jet \_\_\_\_
- 25: A yong hawk, plural
- 31: Billy bishop was one of these
- 33: Acronym for Star Trek simulations
- 37: With 57 down, Univeristy of Ottawa's mascot, singular
- 38: Nickname for the ER in Grey's Anatomy
- 39: What rabbits do
- 40: Nickname of 35 across
- 42: 43 560 square feet
- 43: Season 5 Episode 5: There's no 'I' in \_\_\_\_
- 44: Season 15 Episode 7, Frankie dies after this organ is removed
- 45: Cell in ovary
- 46: Acronym for the US deprtament that has the army
- 49: Kanga's baby in 100 acre woods
- 55: Acronym for when coffee is gone
- 56: License that 9 down have
- 57: With 37 down, University of Ottwa's ma-cot, singular
- 58: Energy currency of the cell
- 59: Acronym for the time allows to be in contact with Pb
- 60: Acronym for an amplifier with low-power signals

# Sudoku

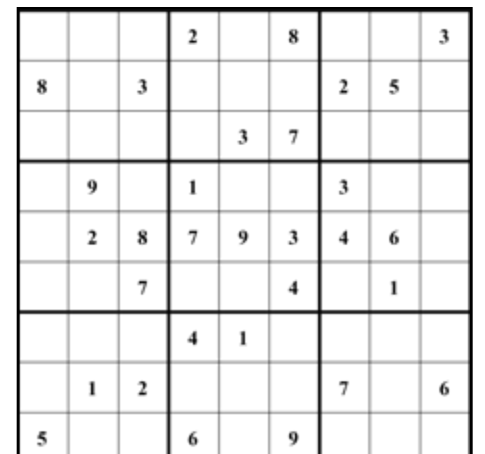
#2019-03

**MRIDU WALIA**  
MECHANICAL

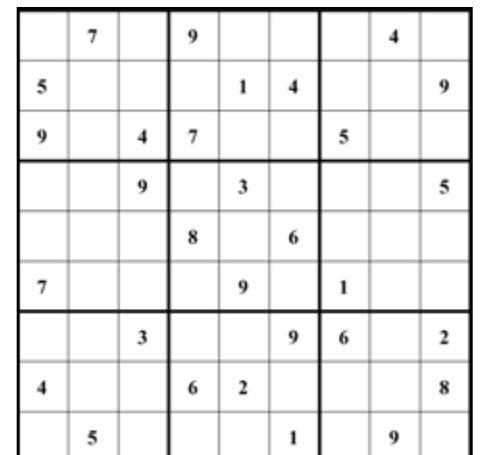
Easy



Medium



Very Hard



Solutions for previous crosswords can be found on *The Iron Warrior's* website at [iwarrior.uwaterloo.ca/distractions](http://iwarrior.uwaterloo.ca/distractions).

**THE IRON INQUISITION**  
Saatvik Walia, 3B Computer

### "Have you found love in a hopeless place?"



*"Love? What's that? Change my mind at 519-722-LOVE."*  
Akash Gill, 3B Computer



*"It's a hopeless world. What do you think?"*  
Ami Patel, 3B Chemical



*"Who's asking?"*  
Farzeen Titina, 3B Computer



*"Never been in love except every dog I have ever seen."*  
Katherine Muir, Psychology



*"I don't know about love, but I found myself."*  
Mit Patel, 3B Computer



*"In ECE..."*  
Tyler Nincevic, 3B Computer