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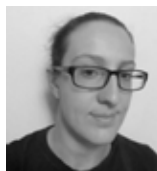
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The Twists and Turns of Executive Order 13769



Rhododendrites via Wikipedia Commons

Protesters Gathered at JFK International Airport to Protest President Trump's Travel Ban



CAITLIN MCLAREN
4B CHEMICAL

One week after taking office as President of the United States, Donald Trump signed an executive order banning citizens from seven different countries - Iran, Iraq, Libya, Somalia, Syria, Sudan, and Yemen - from entering the United States for any reason for the next 90 days. Refugees from all countries were banned from entering for 120 days. This order was highly controversial and caused immediate chaos. Protests began spontaneously at airports, as travellers who had set out before the order was signed were turned back or detained. TSA agents, police, and security were overwhelmed and unsure of how to carry out the order, which applied to legal visa holders and permanent residents of the United States. Even minors were detained in some places, such as a five-year-old American citizen who was on a flight from Iran. There are reports by the ACLU of Customs and Border Protection officers attempting to coerce permanent residents into signing I-407 forms, giving up their permanent residency.

During his presidential campaign, Trump openly called for a “total and complete shutdown on Muslims entering the United States”, and most people immediately concluded that this travel ban on travel from these seven Muslim-majority countries was the Muslim ban that he had promised. Thousands of people showed up spontaneously at international airports, many with homemade signs saying such things as “Refugees are welcome here”, decrying the ban as racist. There were also protests in Toronto outside the US Consulate, with many Canadians outraged at initial reports that Canadians with dual citizenship were being turned away at the border (this was later changed after Canadian officials contacted officials from the US). The Consulate closed on the following Monday to avoid any possible trouble, though both that protest, the larger protest the Satur-

day afterwards, and the airport protests were peaceful. Numerous lawyers offered their services to those affected by the ban for free, beginning work on lawsuits from airport lounges. Prominent in the first lawsuits were two Iraqi men, Hameed Khalid Darweesh (who had acted as an interpreter for the US military) and Haider Sameer Abdulkaleq Alshawi, both of whom were detained in the JFK Airport in New York. Their case was taken up by the American Civil Liberties Union.

Protesters and opponents of the ban pointed out that no terrorist attacks on US soil have been carried out by citizens of the seven countries on the banned list. On the other hand, numerous terrorists including many of the 9/11 attackers, came from other countries such as Saudi Arabia and Egypt. Certain suspiciously-minded people have further pointed out that several countries where known terrorists came from, which were not on the banned list, were countries with Trump business ties. While there is no evidence that this was relevant to the selection of countries where travel was restricted, it does raise eyebrows, especially considering the numerous conflict-of-interest questions that have plagued the Trump administration since his election in November 2016.

The day after the protests, US District Court judge Ann M. Donnelly for the Eastern District of New York ruled that authorities did not have the Constitutional right to remove people who were en route while the order was signed and arrived shortly afterwards. She declared that deporting them “violates their rights to Due Process and Equal Protection”. The White House denied that this did not undercut the executive order.

The next day, a federal judge in Massachusetts ruled in a lawsuit on behalf of two permanent resident university professors that lawful visa and green card holders could not be blocked. Judge Allison Burroughs, along with US Magistrate Judge Judith Dein, issued a seven-day stay on the executive order. Homeland Security Secretary John F. Kelly issued a waiver for per-

manent residents, against the reported objections of controversial White House chief strategist Stephen K. Bannon. Bannon later denied having this dispute. Meanwhile, prominent people criticized the order, including religious leaders of all sects and politicians, including former president Barack Obama. Washington’s Attorney General then sued the administration in federal court, followed shortly by New York, Massachusetts and Virginia. The White House continued to insist that the ban was in the interests of national security, and denied that the ban was directed at Muslims. However, this was belied by former New York mayor and vocal Trump supporter Rudy Giuliani, who stated on live television in an appearance on Fox News that Trump had consulted him on how to fulfill his campaign promise of a Muslim Ban legally.

On January 30, acting Attorney General Sally Yates, the incumbent Obama appointee who was still in the position of Attorney General awaiting the confirmation of Trump nominee Jeff Sessions, refused to defend the Trump ban. Yates wrote that “At present, I am not convinced that the defense of the executive order is consistent with these responsibilities nor am I convinced that the executive order is lawful”. She was fired by Trump in short order. The Trump administration continued to defend the travel ban, although the restrictions on legal American permanent residents were relaxed. Policy director Stephen Miller accused Yates of refusing to defend the ban for political reasons.

On February 3, US District Court Judge Nathaniel Gordon declined to renew the Massachusetts stay on the travel ban. However, on the same day, federal judge James Robart of the District Court for the Western District of Washington blocked the ban nationwide. A furious Trump blasted him as a “so-called judge”, complaining that blocking the ban would allow dangerous people to enter the country. This statement was widely criticized, especially since Judge Robart was a Republican Bush appointee who would have no political reason to oppose Trump.

Shortly afterwards, the Trump administration appealed the stay on the travel ban, but after hearing legal arguments, a three-judge panel on the Ninth Circuit Court of Appeals ruled unanimously not to repeal the block of the travel ban. Judges Michelle T. Friedland, William C. Canby Jr, and Richard R. Clifton declared that the ban was not in the public interest and that the President’s claim to such vast and “unreviewable” executive powers “runs contrary to the fundamental structure of our constitutional democracy.” In a much-mocked tweet, Trump wrote “SEE YOU IN COURT, THE SECURITY OF OUR NATION IS AT STAKE!”, threatening to bring the case to the Supreme Court, which currently has an empty seat left by the late Justice Antonin Scalia. Former candidate Hillary Clinton tweeted “3-0” in response. Trump’s own nominee for the Supreme Court, Judge Neil Gorsuch, expressed concern over Trump’s antagonistic statements towards the judiciary, with Sen Richard Blumenthal reporting that Gorsuch called Trump’s “so-called judge” tweet “disheartening and demoralizing”.

Eventually, the Trump administration decided not to pursue the court cases any further. Instead, according to Homeland Security Secretary John Kelly there is a newer, “more streamlined version” of this ban in the works. Although there are no details yet, Kelly indicated that green card and visa holders would likely not be banned; it was the extension of the ban to these people that was the basis of many of the numerous lawsuits contesting the ban.

The future of travel to the US is uncertain; perhaps the administration has learned its lesson regarding the limits on its legal power and the necessity of drafting legal documents carefully, but given President Trump and his staff’s controversial comments regarding the Judicial Branch, that is doubtful. However, the systems in place to check presidential power worked this time, and the American people voiced their disapproval loudly. Hopefully, if more injustices are to come, the same saner forces will prevail.

Letter from the Editor

The Pixies, Soundgarden, and More



DONOVAN MAUDSLEY
EDITOR-IN-CHIEF

Well here we are, having successfully navigated the stress filled mine field that is midterms. I hope you were able to get out unscathed.

Some of my classmates and I were talking about examinations over our Hell Week though and we realized something kind of funny. Other than Chem 102 in first year, which is entirely multiple choice, you can probably make it through most engineering programs without ever getting a question right on an exam. Food for thought.

We've put together a pretty sweet issue of the paper for you guys this time. All your favourite columns are back. Raessa makes an appearance to argue against Hasan in our Point-Counterpoint column. Our new staff writer Qianshu makes his first appearance. Tristan tells us a little more about his experiences in Germany this year. Gabrielle gives us an update on the whole Brexit situation. We've even got a comic! How cool is that?

So I just went through my (hopefully) last ever Hell Week. As usual I got way too little sleep, drank way too much coffee, and ate horribly throughout the whole week. However, before my Fluid Dynamics 2 midterm on Friday, my study group and I used some advanced geometric properties of paper to turn a single page of newsprint into a circle of paper with a diameter of around 12 feet. It was pretty awesome, but then Thomas Willert went and broke it. Nice going Tom. We also made a smaller one out of a post-it note, and you can actually fit through it.

Well, I guess it's time to get to the point of this damn editorial.

I really like music. That might seem like a stupid sentence; everybody likes some sort of music. I've been into music and music related things for years now. It started when I picked up the violin in the fifth grade. At first it was just for school, but I really liked it and my mum got me one for my birthday after I started lessons. Next came the guitar. My grandfather bought me a classical acoustic guitar from our neighbour across the street during a garage sale. I remember when I finally learned how to play "Here Comes Your Man" by the Pixies I was so proud.

I started playing bass guitar in bands when I was in eighth grade, and kept that up all through high school. Any old fool can play bass. I've never really taken structured guitar lessons though. I learned from videos on Youtube and by watching players who were better than me. Eventually I started teaching guitar at the school I took violin lessons at, which was pretty fun. I even started playing drums after a few years. My parents surprised me with a kit

last Christmas, and it's a blast to play.

Enough about me for a while though, I want to talk about the bands that I like. I mentioned The Pixies before, and want to recommend that you check them out. The Pixies were one of the first modern alt-rock bands and were way ahead of their time. Some of the songs off of their 1989 album *Doolittle* could be passed off as 2017 indie rock. Extreme uses of dynamics (louder choruses, softer verses), sometimes rough guitars, and massive vocal ranges meant that The Pixies' sound was never quite the same from song to song. They released an album a year from 1987 to 1991, and then promptly broke up.

They left one hell of a legacy though, and their records influenced pretty much every other alt-rock band from the 90s. In particular their music left a lasting impact on a young Kurt Cobain. During an interview in '94 he said that when he first heard them he connected so much that he thought he needed to be in The Pixies, or at least a cover band. In the same interview he also said that while writing "Smells Like Teen Spirit" he pretty much ripped off The Pixies.

Another great musician who stated a Pixies influence was David Bowie, which was funny because The Pixies were influenced by David Bowie in the first place. Bono from U2 also said that he thinks The Pixies are one of the best American bands ever.

Eleven years after disbanding and doing a million other projects (Frank Black and the Catholics, The Breeders, The Amps, The Martinis), The Pixies got back together and everything was right with the world. They've released a few albums since then, and played about a million shows around the world. A few members have shifted around, but the core lineup is still pretty much there. The new albums are good and I like them a lot, but they don't quite hold up to the old school albums. It sounds like they know how to play their instruments too well now...

The Pixies are tangentially related to pretty much everyone in the world of rock and roll. Their current bass player was a member of the Queens of the Stone Age, and A Perfect Circle for a while. Thom York from Radiohead has cited the band as an immense influence. Producer Steve Albini worked with The Pixies before working with a million other bands in the 90s and 2000s. The band has also played almost every major music festival in North America and Europe.

You're probably saying "okay Donovan, I get it. The Pixies are awesome. Who else are you going to talk about?" Well get ready to hear about Soundgarden. "That band that has those two songs on *Rock Band*?" Yes, Avid Reader, yes.

Soundgarden is a grunge band from (you guessed it) Seattle. Named after a statue which stood in a park near front man Chris

Cornell's house as a child, Soundgarden holds the distinction of releasing the first ever major label grunge record, 1989's *Louder Than Love*. This album wasn't super successful or super good, but their third full length album *Badmotorfinger* helped cement them as a major player in the grunge scene. I attribute this to the addition of Ben Sheppard on bass. He's probably my favourite bass player ever, and coming from someone whose primary instrument is the bass that's a big thing.

Badmotorfinger is a freaking terrific album. Soundgarden perfectly merge heavy metal riffs with radio friendly choruses. Some standout tunes from the album are "Rusty Cage", "Outshined" and "Jesus Christ Pose", which was protested as being anti-Christian but is really about the exploitation of religion for personal gain. "Jesus Christ Pose" really distills Soundgarden, and in a larger sense grunge, down to one song.

After *Badmotorfinger*, Soundgarden toured around for a while and then recorded their magnum opus, *Superunknown*. How can one album be so heavy, contain so many great instrumental parts, have wickedly awesome lyrics, and still be totally radio friendly? I doubt anyone will ever figure out the formula for *Superunknown*. Rolling Stone Magazine marked it down as the 38th best album of the 90s, which I think is total lunacy. *Superunknown* produced five awesome singles, and was nominated for the Best Rock Album Grammy Award.

After recording and touring for a fourth full length album the band members went their separate ways, similar to The Pixies. Also similar to The Pixies, they reunited twelve years later. Enter 14 year old Donovan, who woke up at 6 AM on a cold November Saturday to go downtown to wait in line for tickets to actually see Soundgarden, because online tickets sales weren't really a thing yet. I was second in line and very excited. The show was awesome, and I still have my concert t-shirt stashed in a closet somewhere.

Fast forward another 6 years and I find myself without a co-op position over the Summer '15 term, so I work part time for my cousin as a security guard. I'm working concert security for shows around Ontario and I actually got to meet Ben Sheppard for a whole minute and a half. I like to think that I didn't embarrass myself too much.

Other lesser known bands you should check out are the Sword (a more straight up heavy metal band), Motion City Soundtrack (a pop-punk quintet from Virginia), and O'Brother.

Well, that's all I have to say about myself for this issue of the paper. As usual, if you've got things that you want to tell me about (such as disagreeing over which Soundgarden album is best), please, please, PLEASE email me at iwarrior@uwaterloo.ca. Alright then, I'm going for a nap.

THE IRON WARRIOR

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Quebec City Mosque Shooting

Why turning tragedy into terror is harmful to Canadian Values



GABRIELLE KLEMT
2A GEOLOGICAL

Every once in a while, events happen that can't be ignored, events that break through the campus bubble we live in at university. The shooting of peaceful worshippers on January 29 at a mosque in Quebec City is one such event. It's the kind of shocking, unsettling thing that makes you ask, "Here in Canada? How?" the kind of event that makes our Prime Minister use the words "terrorist attack".

Three weeks ago, a man burst into a mosque in the suburb of Ste-Foy Quebec City and opened fire on the worshippers, killing 6 men, wounding 19 other people. This is an attack made all the more cruel because in Canada, where we respect religious freedom, a place of worship should be off limits to crimes of any sort, least of all murder. The six men who were killed were fathers, community figures, and upstanding Canadian citizens.

At vigils all across the country,

they were mourned by thousands who recognized the horror of this attack on peace in our country. The 13-year-old daughter of one of the men killed spoke to the crowd in Quebec City, urging them to "Take care of your parents because you never know what is going to happen". I believe that we live in a country where young girls do not have to say such things, and yet in 2017 this is something that happened.

In a time when people world-wide are looking at Trump's order to ban immigrants from seven Muslim majority countries, an anti-Muslim attack like this one could be seen as a dangerous sign. The suspect charged by police with six counts of murder and five accounts of attempted murder, is 27-year-old Alexandre Bissonnette, an allegedly far-right white supremacist. According to neighbours and those who knew him at the Université de Laval, where he studied political science and anthropology, he always seemed solitary and had political leanings towards Donald Trump and Marine Le Pen, a far right French politician.

However, despite the Canadian

government formally calling the shooting a "terrorist attack", it seems unlikely Bissonnette will receive terror charges. The laws on terror attacks in our country are such that prosecutors would need to prove beyond a reasonable doubt that the shooter committed the attack "for a political, religious or ideological purpose, objective or cause" (from the Criminal Code). Additionally, "lone wolf" attacks cannot be deemed terrorist attacks unless they are actually part of or giving money to a known terrorist group.

Although it seems like we live in an age where the word "terror" is thrown around lightly, many events cannot be deemed to be legally terrorist in nature without the correct background. This fact which seems hard to believe given that this event is so clearly considered a terrorist attack, especially by those living in fear in the small Quebecois Muslim community.

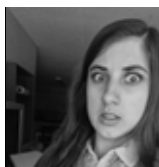
One person who really likes the word "terror", President Trump, has not commented on this issue at all. The President's lack of response to the attack comes shortly after his accusation that the American press has been under-

reporting crimes by Islamic extremists. The morning after Kellyanne Conway appeared on CNN to explain that Trump "doesn't tweet about everything," in response to a question regarding his silence on the shooting, Trump tweeted about Nordstrom treating his daughter Ivanka unfairly with regards to her clothing line.

Some people find it disturbing that since he leans heavily on the idea that terror is something perpetrated by those of the Muslim faith, Trump might be leaning on media to downplay this event north of his border. Some Canadian journalists have even looked into US coverage of the attack and seen that US news outlets covered the attack on Parliament Hill by Michael Zehaf-Bibeau three years ago much more heavily than they covered the Quebec shooting last month. Could it be the notoriously vocal President is staying quiet because this time "terrorism tables" are turned? Let's hope not. In the meantime here in Canada we can work on being good to our neighbours and remembering that in this country, and at this university, everyone is welcome.

The Complexities of Organ Donation

What happens to your body isn't a decision that is only up to you



ALEXA GRITTANI
3B MECHANICAL

There is a disconnect in Ontario and Canada between the laws governing organ donation and the actual practice. Even if the deceased person has consented to donating their organs, the family can step in and veto this decision.

In Ontario, when someone dies suddenly, making their organs viable for donation, there is a lot that physicians must go through before they can actually harvest the organs. They have to check that they have consented to donating their organs, and only about 30 per cent of the eligible population has formally registered as organ donors, even though a majority of Canadians agree with organ donation.

They must also test that the organs are healthy and that there are matches for transplanting, but then before harvesting the organs starts, the family is notified,

and "asked to reaffirm that choice" according to Ontario's organ donor website (beadonor.ca). From a legal perspective, there is nothing a family should be able to do to veto the legally binding consent to donate organs that an individual has signed prior to their death.

But, the Trillium Gift of Life Network Act gives families the right to express if they believe that their loved one may have changed their mind on the topic of organ donation. While a majority of families will honor the deceased wishes, according to CBC 20 per cent of families of registered donors blocked organ donation. According to national post, no physician has ever denied the wishes of the family when they have chosen to stop organ donation.

What is the solution to this disconnect? It may be as simple as talking about it. It is important to inform family and loved ones of your decision on organ donation, so that it cannot come as a shock to them later. Others suggest that Canada should be switching to an opt-out system like

France has recently adopted.

The new law in France assumes that everyone consents to organ donation unless they enter their names on the National Rejection Register.

One province in Canada has already been trying to move to presumed consent. Saskatchewan Premier Brad Wall tried to make the province the first to change the laws surrounding organ donation. While the committee did not support it last November, he says that the conversation is ongoing.

At the same time there has been a significant increase in the number of deaths from drug overdose in Canada, which is actually making more organs available for transplant. Since the beginning of 2017 there has already been over 50 organs donated from 20 donors that have been transplanted, according to BC Transplant. This is because there has been a deadly spike in fentanyl abuse in Canada.

Fentanyl is a potent, synthetic opioid pain medication that has rapid onset, but only a short duration. It is 50 to 100 times

more potent than morphine, meaning that the size of about four grains of salt of Fentanyl is enough to kill the average adult. In British Columbia, the head of the province's renal transplant program, Dr. David Landsberg, reports that 25 per cent of the deceased donors so far in 2017 are the result of overdoses.

This raises a risk for diseases in the organs due to the organs coming from someone who participates in "high-risk" behavior. The organs undergo careful testing to ensure they are safe for transplant, and the recipients are advised that the organs come from a "high-risk" individual. It makes no difference to the transplant receiver, as to them it is often life or death.

According to the Canadian Blood Services, there are approximately 4600 Canadians on the waiting list for organ transplant.

Registering online at beadonor.ca only takes minutes, and telling next-of-kin will make sure that your wishes can be understood.

One of these doesn't quite belong...



Leah Kristufek

Billionaire Abducted From Hong Kong

Chinese Authorities Reportedly Responsible



QIANSHU WANG
2B NANOTECHNOLOGY

Xiao Jianhua, a 46-year old Chinese-Canadian citizen and one of the richest billionaires in China with ties to top Beijing leaders, was reportedly abducted from the Four Seasons hotel in Hong Kong where he had been staying near the end of January by Chinese public security agents and brought back to the mainland for as of yet inconclusive reasons. Xiao was last seen in the lobby of the Four Seasons hotel on CCTV footage before being escorted away by mainland security agents to an undisclosed location. In essence, Xiao got batmanned hard, and this case does indeed bear many interesting similarities to that particular scene from “The Dark Knight.”

News sites as well as independent investigations performed by Hong Kong police have both confirmed that Xiao has crossed into the mainland with security agents but other details are sparse and there is a great deal of mystery surrounding the case. The mystery deepened after Hong Kong police, who were investigating this incident as a missing persons case requested by his family, soon received a request to drop the case from Xiao’s wife who had been told to by Xiao. His wife also fled to Japan after submitting the request for the withdrawal of Hong Kong police assistance. Hong Kong police are continuing to investigate.

In addition, a front page ad in Hong Kong’s Mingpao newspaper soon appeared afterwards in which Xiao appeared to deny that he had been

kidnapped. Xiao stated that he was “re recuperating overseas” and that everything was fine and that he hoped to meet with media soon. The troubling fact is that this statement appears to contradict earlier reports that he had been on the mainland. His statement also emphasized his loyalty to the Communist Party of China and to the nation as well as the fact that he is a Hong Kong permanent resident and Canadian citizen and as such enjoys the legal protections of both. Mingpao was also unable to disclose who had purchased the advert which typically costs around \$36,500. The newspaper statement was also similar to statements posted on and later removed from WeChat, a Chinese social network and messaging app, by the Tomorrow Group, a massive holding company controlled by

Xiao with stakes in banks, insurers, and property development. Chinese state-associated media report that Xiao is assisting the government with an ongoing anti-corruption probe.

Looking beyond the individual case of Xiao Jianhua, this recent incident bears a number of similarities to an incident in January of 2016, when five booksellers known for selling salacious titles regarding high-level Chinese politicians disappeared from Thailand, southern mainland China, and in one case, Hong Kong. Similar fears had also been raised at that time regarding the possibility of them being abducted by Chinese authorities as they all later resurfaced in mainland China. Lee Bo, the bookseller who had gone missing in Hong Kong, was a British citizen and the British govern-

ment believed him to have been “involuntarily removed to the mainland.” All men later turned up unharmed and Lee Bo denied that he had been abducted and had instead voluntarily left to assist with an investigation on another bookseller.

The recent incident with Mr. Xiao and the bookseller case raises questions regarding the autonomy of Hong Kong in the future and their relationship with Beijing. Hong Kong, as a former British colony, enjoys a special relationship with Beijing under the “one country, two systems” policy and as such mainland legal agents have no jurisdiction in Hong Kong. The recent cases have caused many to worry that Beijing is exerting its power and challenging the city’s autonomy.



TUBS via Wikipedia Commons

Some Worry That Chinese Authorities Operating Within Hong Kong Will Limit the City State’s Autonomy

Doctor Watson to the Rescue

IBM Supercomputer Turns Talents to Fighting Cybercrime



BRYAN MAILLOUX
3A MECHATRONICS

While it’s usually Sherlock doing the sleuthing with Watson in tow, now it’s Watson’s turn to fight crime, and simultaneously be a doctor, a journalist, and a financial analyst all at once. For the past year, IBM has been teaching its Watson supercomputer how to fight cybercrime, and now they’re making it available for commercial use. In this new job, Watson’s main role is to help security teams whittle down the list of false leads on security threats, which

are a big drain on security teams’ time and which help to hide actual security vulnerabilities. Because of its ability to crunch so much data at once, Watson is quite adept at this newfound use, and is currently being beta-tested at the University of New Brunswick and a number of companies.

Watson’s original claim to fame was when it defeated two of the greatest Jeopardy! champions of all time, Ken Jennings and Brad Rutter. Indeed, playing Jeopardy! was what Watson was originally designed for, to show off the capabilities of IBM’s artificial intelligence. In fact, for the game during which Watson beat Jennings and Rutter, Watson was running on 90 IBM servers

with a total of 16 terabytes of RAM, and all the information Watson could draw from during the game was stored within that RAM. It couldn’t be stored on hard drives because it would then be too slow to compete with the human contestants.

Since then, Watson has found use in commercial applications, such as the medical insurance field, where it helps determine health care costs and influence medical decision-making for lung cancer patients. It does this by going down to the genetic level and analyzing which mutations could have caused the cancer, and from there determining what the best course of action might be. Watson is also getting its feet wet in the Internet of Things

field, analyzing vast amounts of data coming from smartphones, wearables, and other sensors. From all this data, Watson can come up with insights into customer behaviour that could be useful in marketing, or aggregate sensor data to help engineers come up with better designs for things.

So, it’s a doctor, a cybercop, and a fancy calculator, all in one. And perhaps most impressive of all, it’s physical size has shrunk by about 90 percent since it was first created – from those 90 servers that originally played against Jennings and Rutter that could fill a whole room, Watson is now about the size of three stacked pizza boxes. Just another step closer to the robot revolution...

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Point Vs. Counterpoint

It Is Unfair to Penalize An Entire Team for Cheating of Individual?

POINT

HASAN AHMED
1B NANOTECHNOLOGY

A little while ago, Jamaica was stripped of a gold medal in the 100 m from the 2008 Olympics, due to one of the members of the 100 meter relay team, Nesta Carter, testing positive for performance enhancing drugs (methyhexanamine, to be specific). Long story short, this drug seems to give an adrenaline boost to the user and make it easier for them to take in oxygen. Like any PED, it gives an advantage to the user, and a disadvantage to the opponents. Thus, Trinidad and Tobago could be given their rightful gold medal. Now, I agree with the Olympic Committee's decision to take away the medal, for a few main reasons.

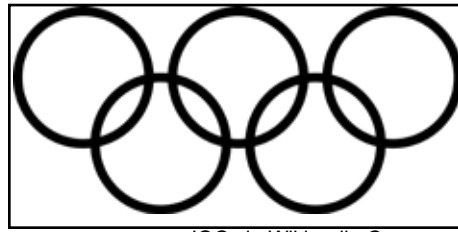
First, it looks bad on the International Olympic Committee (IOC) if they don't take the medal away. Especially since Jamaica is one of the highest supported country during the summer Olympics, failure to strip them of the medal could come across as favouritism towards that country, and not to mention, Usain Bolt. Bolt is no longer able to claim the title of triple champion for the sprinting events at the Olympics for three consecutive competitions, and that's a price he had to pay for his teammate's doping scandal. That can lead to accusations, and prevent people from watching the Olympics if they gave special treatment to Jamaica. With thousands of people watching the Olympics, and probably 10 times more watching the sprinting events, do you really want to show favouritism in front of your most captive audience?

Not only that, but taking away medals from cheaters will deter others from doing it. No one wants to be known as the guy/girl doping, and the price to pay if you are caught is too big a burden. Not to mention, you let your team down, which is extremely discouraging to re-participation. There may be legalities involved as well, and again, it's too much for a person to bear. Besides, if you're training for majority of your life in order to win the Olympics, you'd devalue all the hard work that you (and others) have put into the sport. What's the point? Do you really need the PED? Or would you rather say to yourself, "Yeah, I earned that. I'm truly the best," and feel great about yourself? There's no excuse for cheating, period. Also, drug test samples are kept for 10 years and tested every once in a while. So if you think something you use today won't be caught, think again. They can try again in a few years with new methods, and if they catch you, then you'll face the same fate Carter did over the course of the past few weeks.

Stripping the medal away will also give justice to those who actually deserved it. If you were in the Olympics, and you came second to someone who was full of steroids, wouldn't you want your rightful claim of the medal? I mean, assuming you're not doping either, you would have probably come first if that person had not used PEDs. Besides, it makes you feel good about yourself, putting in pure hard work for your goals and achievements. Trinidad and Tobago are in a spot for gold, Japan for silver, and Brazil for bronze. The gold medal can't be reassigned until Carter goes through the appeal process. Even if Carter DOES pass his appeal, and gets

the decision overturned, then we know there was a truthful process behind it, and all can be set straight in the athletic world.

Also, who cares if Bolt can't claim the title of triple repeat? His teammate caused the downfall of the title, but he seemed to react to it fine. He stated that, "Things happen in life, so when it's confirmed or whatever, if I need to give back my gold medal I'd have to give it back, it's not a problem for me." Sounds like Usain knows how much hard work he puts into his own athletic regime, and is most likely upset with his teammate. All in all, he wanted the best for everybody, and as cocky as Bolt is, it gained a lot of respect from my point of view when he was aiming for justice. Not to mention he's already regarded as the best sprinter of all time; I think a gold medal is a small price to pay in comparison to his athletic (and not to mention financial) status in the Olympic world.



IOC via Wikipedia Commons

The Olympic Rings Represent Five Continents United by Olympism

However, just during this week, as I've already mentioned above, Carter has appealed AGAINST the doping ban, claiming he didn't do it. Now this is where the grey area comes in for this PCP, as the medal has still been taken away from Jamaica. In my opinion, I agree with the IOC's decision in keeping the medal away until he can be proven innocent. Jamaica has had a history of doping contestants. The most prime example I can name is Yohan Blake, who was essentially Jamaica's second-in-command sprinter. Known mostly for his 100 m performance; although not a team event, he still put a heavy weight on Jamaica's shoulders for upholding its reputation as a sprinting nation. When he was caught for using the same substance, that put strain on the sprinting nation. Thus, the IOC cannot take any chances with keeping the medal with Jamaica. We'll see what happens after the appeal is decided, but for now, Jamaica is still disqualified from the 2008 Beijing 100 m relay race.

In the end of the day, I can relate this to academic integrity. Your work and effort gets devalued if someone plagiarizes the assignment and gets a higher mark than you. Wouldn't that make you angry? I know I would be. Especially since there's so much unspoken trust within the sporting community, you'd lose a lot of respect (as many athletes have in the past) for your performances. Lance Armstrong, David Ortiz, Alex Rodriguez, and many other Olympic participants and medalists. I'd like to conclude by saying this medal stripping should not affect the whole country; just events where teamwork is the main factor (case in point: the 100 m relay).

RAEESA ASHIQUE
2T ELECTRICAL

In a perfect world, everyone plays by the rules. No one takes performance enhancing drugs, no one gains access to another team's playbook, no one deflates footballs before the AFC Championship game.

But in a world which tempts athletes with incentives such as money and fame, as well as nationalism which motivates athletes to bring home medals and make their country proud, some athletes will do anything to get to the top.

Drug abuse is very common, from abuse of painkillers even after recovering from an injury, to taking steroids to enhance performance. Because it is common across all sports, I will focus my argument on substance-related violations.

I am going to narrow my focus on cheating in the Olympics, because this is the most relatable to a larger audience. I know I am expected to talk about Deflategate, but as a diehard Patriots fan I like to pretend that Deflategate never happened.

Currently, if one athlete on an Olympic team tests positive for performance enhancing drugs, there may be sanctions imposed on the rest of the team, such as disqualification or stripping of medals, as is deemed appropriate. The question at hand is whether it is fair to punish the whole team for the actions of one or a few, and its effect on the integrity of the sport.

The most publicized recent case that is relevant to this argument is Usain Bolt being stripped of his 4 x 100 metre relay gold medal from the 2008 Beijing Olympics after his teammate, Nesta Carter, tested positive for doping. I am here to argue that Bolt should not have been penalized. On a broader scale, the entire team should not pay the price for the wrong actions of a few team members.

The average Olympic athlete trains six hours a day, six days a week. They are symbols of pushing one's body to the next level, and achieving physical excellence. They inspire the next generation to aim high, and strive to achieve their goals.

Every Olympic athlete on the team worked very hard to reach that point, and almost every single one of them played by the rules. Unless the entire team was aware of cheating happening amongst their teammates, which is quite unlikely, there is no reason for everyone to be punished.

It is unfair to hold everyone accountable for one person's actions, and it is especially unfair to do so when the athlete who cheated did not even participate, such as a backup member of the team, or a second or third string player.

Stripping medals is a heavy punishment, and the future of an athlete's career should not rely on a factor over which they have no control. Essentially, this comes down to luck: the rest of the athletes were unfortunate enough to be on the same team as a person who made bad life decisions.

COUNTERPOINT

Some may argue that everyone on the team should be encouraging each other to play fair, or that he/she should be aware of what a fellow team member is doing. However, we cannot blame one person for the actions of another. An Olympic athlete is an adult. Even if they are not legal or allowed to vote, anyone with that kind of commitment is capable of making their own decisions. We cannot put the onus on the rest of the team to monitor each other. Anyone who cheats fully knows the potential consequences of their action, but one person's decision should not bring everyone else down. The rest of the team is consciously playing fairly, and this needs to be acknowledged.

So what is the intended effect behind stripping the rest of team of its medals? The league or committee in charge (such as the International Olympic Committee, in this case) wants to show everyone who is boss. They want to establish a standard that says "we don't condone cheating". They want the athletes to know that their actions have consequences.

Yes, it is important to punish cheaters, or else the integrity of the game is greatly compromised. But does the whole team need to pay the price? Theoretically, the peer pressure and the possibility of letting down your teammates is theoretically an additional deterrent to potential cheaters.

However, stripping medals does not actually achieve the desired effect.

First of all, the incentive to cheat (including money, recognition, and national pride) outweigh the deterrent of letting down one's team. As long as these exist – and they will exist, for as long as the general public is interested in watching their countries' athletes compete – some people will be willing to take this chance.

Secondly, this breaks trust between teammates, and destroys the team dynamic. Punishing the entire team is the equivalent of keeping the whole class in for recess because one student misbehaved. The rest of the class is going to hate them. Causing division within the team is not the appropriate way to address this issue.

Finally, people are selfish. Call me a pessimist, but I believe that everyone is out to make it for themselves. This is especially the case when money is on the table. If an individual is willing to risk his/her own career in order to be the best, he/she will definitely be willing to risk their teammates' careers as well. An athlete who was planning to cheat beforehand will do so anyway, regardless of this additional so-called "deterrent", without giving a second thought to the rest of the team.

In conclusion, it is unfair to penalize the entire team for the actions of one individual, when that individual is aware of the consequences of his/her actions, and is an adult perfectly capable of making the right decision. Additionally, stripping medals from the entire team is not the correct way of minimizing cheating, and so the consequences of cheating should be reevaluated.

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.

What's Council Anyway?

The Chronicles of Council (No Aslan, Sorry)



RACHEL MALEVICH
PRESIDENT

WE MADE IT! Maybe? For those of you done midterms, congratulations! I hope you all had a great “reading” week. We’re halfway through the term now, and lots of initiatives have been rolling out by the Executive. On the Council side of things, we had two jam-packed meetings! From FEDS, to WaterlooWorks mandates, and committee after committee, this article is going to break it down for you!

In meeting 1, we passed a lot of routine motions, like the budget for the term, and electing students to sit on the

EngSoc Leadership Excellence Award Committee and Teaching Excellence Awards Committee. A new committee was formed to assist the VP Communications in selecting delegates for conferences, and to remove any bias from these selections. We hope that this committee will become a new standard for EngSoc!

We also passed a motion to establish brand guidelines for the Society. Melissa, the VP Communications, will be working on this over the term and we’ll have it posted to the website for easy access! Finally, at meeting 1, Council was in full agreement that AT LEAST 1 Executive will volunteer to participate in charity pi day by getting pie’d in the face. Make sure you visit the CPH foyer on March 14th to see who you can pie!

Now onto meeting 2! The FEDS Executive candidates had an opportunity to share their platform with Council. By the time you read this, the successful candidates will have been elected. I encourage you to get informed about their initiatives and support transparency and accountability!

Just like in meeting 1, meeting 2 began with many routine motions including the election of the Sponsorship Committee, election of a Chief Feedback Officer, and the rollover motions from the A-Society term. Whenever a big change happens that affects how the Society operates or our governing documents are changed, the motion needs to be passed on both parts of the Society. The results of these motions will include a combined

mentorship program in the future (Women in Engineering and EngSoc), and remote attendance (for all of us on co-op) at our Joint Annual General Meeting this Spring.

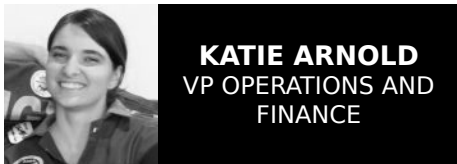
The VP Academic, Andrew, was also mandated to conduct a survey and write a letter to CECA regarding WaterlooWorks. Stay tuned for that survey as we’ll be looking to gather as much data as possible.

Finally, the Dikcissel now joins the Dikdik (EngSoc’s official animal) as the official bird of the Society (Google them, they’re both pretty cute).

If any of this sounds interesting to you, and you’d like to take part in these discussions, I’d highly recommend attending Council! We still have 3 meetings left this term (March 1st, 15th, and 29th) and I hope to see you there!

Engineering Student Deals

Getting More Bang for Your Engineering Society Buck



KATIE ARNOLD
VP OPERATIONS AND
FINANCE

Have you ever wondered “what does my Engineering Society do for me?” Perhaps you’ve had the thought, “what do I get out of my \$15.90 Engineering Society fee?”

On the whole, your Engineering Society fee gives you access to many services provided by the Engineering Society. These services include, but are not limited to, academic resources such as the Exam Bank and our workshops, and career services such as resume critiques, interview skills, and professional photoshoot.

If academic and career skills aren’t enough for you, we also have a large

sponsorship program. Every term 15% of our student fees collected are returned to the students through sponsorship of teams and groups. Our sponsorship has gone to things like orientation week, student-run engineering conferences hosted by University of Waterloo, and supporting our student design teams in their projects and international competitions.

You’re not convinced. “Katie,” you say, “All these services, they’re great. They benefit many students. But what does the Engineering Society do for me personally?”

Hold onto your hat. Three words. Seven syllables. Engineering Student Deals.

The Student Deals program puts money in your pockets.

Partnering with many local businesses, the Student Deals are

offered solely to engineering society members and guarantees you discounts in the plaza and elsewhere in Waterloo.

Do you like boardgames? Double stamps at Crossroads Board Game Café on King Street.

A fan of Waffle fries? Who isn’t?? 15% off all regularly priced food items at Molly Bloom’s Irish Pub in the plaza.

Enjoy a good bubble tea? Take a break from studying at Sweet Dreams Teashop in the plaza and enjoy 10% off all food items while you’re there.

I like ice-cream, you like ice-cream, we all scream “Student Deals” for ice-cream. At Marble Slab we get you double stamps, and at Menchies on King Stree we get 10% off all regularly priced food items.

This term, thanks to our amazing Student Deals Directors, we have already added two new deals to our

repertoire. Please enjoy half price pool tables at the Break Room on Mondays and Tuesdays, as well as 5% off food at Grace and Healthy Dumplings in the Plaza.

Access to the Student Deals is provided to you by showing our Engineering Student Deals Sticker on your watcard. Stickers are available for free to Engineering Society Members in the EngSoc Office, CPH 1327. Further details and a complete list of our student deals can be found at engsoc.uwaterloo.ca/services/student-deals/, and if you have any questions or any ideas for new deals feel free to email me at vpfinance.b@engsoc.uwaterloo.ca.

Through our student deals program I save more than the \$15.90 student fee every term. I hope you do the same.

Thanks for reading!

Upcoming Events Calendar

Wednesday Feb 22	Thursday Feb 23	Friday Feb 24	Saturday Feb 25	Sunday Feb 26	Monday Feb 27	Tuesday Feb 28	Check out up-to-the-day event postings on the EngSoc website at engsoc.uwaterloo.ca/event-calendar/
Reading Week! Change for Charity Ongoing until March 31 Engblood Ongoing Until March 6	Reading Week! Construction CanDrive POETS Starting at 9:00 AM, Ongoing until March 8	Reading Week!	Dungeons and Dragons 12:00 PM - 2:00 PM		AutoCAD Workshop 4:00 PM - 7:00PM Multimedia Lab (CPH 1346) Charity Reading Week Raffle 11:30 AM - 4:30PM CPH Foyer	Charity Grilled Cheese 11:30 AM - 1:30PM CPH Foyer Board Games & Metal Club 5:30PM - 7:30PM POETS Karate and Self Defense 8:00 PM - 9:00PM Columbia Ice Field	
Wednesday Mar 1	Thursday Mar 2	Friday Mar 3	Saturday Mar 4	Sunday Mar 5	Monday Mar 6	Tuesday Mar 7	
Council Meeting 5:30PM - 7:30PM RCH 211	Blood Runs 4:00PM - 5:00 PM Life Skills Workshop II 4:30PM - 6:30PM CPH 1327 Metal Club 5:00PM - 7:00PM POETS	Bowling with EngSoc 5:30 PM - 7:30 PM Victoria Bowling Lanes	TalEng 7:00 PM - 11:00 PM Wif's	EngSoc & ESQ go to THE MUSEUM 10:00 AM - 4:00 PM	Change for Change Starting at 9:00 AM Ongoing until March 10 CPH 1327 EngiQueers 6:00PM - 9:00PM POETS	Career Fair 11:00 AM - 2:00 PM Charity Grilled Cheese 11:30 AM - 1:30PM CPH Foyer Metal Club & Board Games 5:00PM - 7:30PM POETS Genius Bowl 7:00 PM - 9:00 PM	

Take a Survey, Save the World

You Could Also Win a Prize



MELISSA BUCKLEY
VP COMMUNICATIONS

Hello there reader! We've made it to Reading Week, congratulations to us all!! I'll be working on some of my executive initiatives over the break and also going skiing. I used to be an every-weekend skier, and then I came to Waterloo and gave up on ever going outside. I think this will be a fun break!

A part of my job is receiving event, news and opportunity updates from our affiliates as well as our own material, and deciding what is most important to share with you on a weekly basis. One

of the initiatives I (with Dan Robertson) ran for VP Communications on was a survey to help EngSoc understand where and how the student body (that means you!) wants to receive news from us. If you subscribe to us on any of our medias (we are on the Facebook, the Twitter, the Instagram, the Email and of course uwengsoc.com.), you may sometimes feel bamboozled with EngSoc updates. Maybe you love getting tons of updates, maybe you muted us a long time ago - but the exciting thing now is that you can help decide how you and others receive the news.

The upcoming survey will be cover EngSocs current methods of communication with students, and where you think we should expand or tone it

down. We are really hoping to get some of the specifics of what you prefer out of this survey. Only want to hear about EngSoc events through Facebook? Want a mailing list overhaul? Prefer everything go exclusively through twitter? We want to hear about it. Then we will have the data and will be able to shape our services and updates to best serve you.

And because we know you well enough to know you love free things, if you complete the survey you can win some gift cards or miscellaneous prizes! So, as my final plea, when this survey comes out in the very near future, please take the 5 minutes to fill it out for yourselves and the waterloo engineering students who come next.

In other news, I brought a group of

Waterloo first years to the First-Year Integration Conference in Ottawa on the weekend of February 4th. They seemed to have a really great time learning about professional development, Engineering Societies and how to make the most of their first year. On the Sunday morning, I voted on behalf of the Waterloo Engineering 'B' Society at the plenary (Engineering Student Societies' Council of Ontario's version of a Council Meeting).

You can read more about their experiences on our conference website, and stay tuned for a full-recap of the event: <http://www.uwengconferences.ca/blog/fyic-2017-reflections-from-first-years>

Thanks for reading, see you around!

A READING WEEK READING WEEK

Events and Books and Booked Events



CHELSEA VANDERMEER
VP STUDENT LIFE

Hej til mine intelligente venner! (Y'all can probably guess what this means, but it's in Danish, by the way.) What's coming up soon that you should come to?

MARCH 2ND – LIFE SKILLS WORKSHOP!

(4:30pm...check facebook for details. There will be baked goods)

MARCH 3RD – BOWLING!

(5:30pm, meet on campus and bus)

MARCH 4TH – TALENG!

(8pm, Wilf's)

MARCH 5TH – Education Outreach @THEMUSEUM!

(10am)

MARCH 7TH – GENIUS BOWL!

(7pm, MC 1350 or 1351)

MARCH 8TH – EUCHRE TOURNAMENT!

(5:30pm in CPH 3607)

- Whine & Cheese!

(5:30pm at TBA)

MARCH 10TH- CANstruction!

(9am, Conestoga Mall)

- Semi-Formal!

(8:30pm at the Turret – buy tickets in the Orifice)

Thought: They call it "reading week" because they want us to study, although they place it right after most of our exams? Right...yes...we will definitely do lots of studying. My bets are, however, that a plentiful number of people won't study again until finals. Nonetheless, I hope some of you did spend some time reading over reading week though, because during our regular weeks we sure don't have any "extra time" (what is that?) to flip through decent novels or papers. Other than the Iron Warrior, of course. Wait, what's that? You don't read books anymore? *gasp*! Don't worry, I'm here to recommend some of my favourite books for when you do have time. It could be on your next co-op, or next weekend, or perhaps a tool for procrastination for studying, but I hope you get back into reading at some point.

The Mistborn trilogy by Brandon Sanderson. Really, anything by

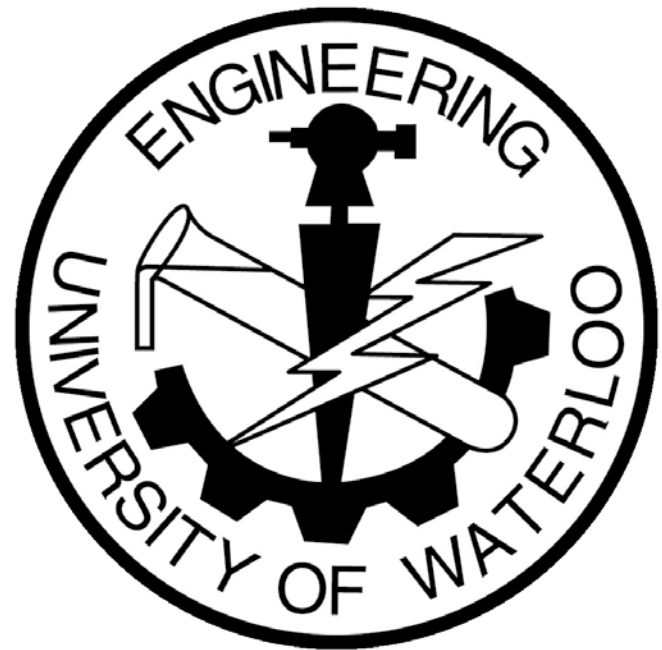
Brandon Sanderson is 10/10 for me, but this series specifically changed the way I see the world (and how I want it to be). It's the perfect mix of fantasy, adventure, action, and drama.

A Man Called Ove by Fredrik Backman. This book is about a stoic old man who is dealing with grief, but doesn't show it. Random occurrences and a disgruntled cat help him through life, although he fights them every step of the way; it's a refreshing look at how

we so often work against our own best interest, and are sometimes forced to do things we don't want to do, but they end up helping us.

Siddhartha by Hermann Hesse. I had never thought much about identity, peace, or purpose very much, and how they are linked, but this book showed different ways of thinking and working with yourself as well as other people.

Nice. Fred ud (...peace out, in Danish).



PD 'Wat' are you doing?

WatPD, WaterlooWorks, and the importance of student feedback



ANDREW MCBURNEY
VP ACADEMIC

Hope everyone had a great time with midterms! To those still in midterm mode - I feel your struggle (I still have midterms too). Without further ado, I'm going to dive right into this week's topic.

The importance of giving feedback and making your voice heard

Apathy is a prevalent issue in today's society, especially visible in elections and surveys. For instance, in the last FEDS elections there was a total voter turnout of 15.28% of undergrads. While the turnout was a 7% (approximately) increase from the previous election, the

majority of undergraduate students are still choosing not to participate.

The question is: why?

That's the question organizations like CECA and WatPD ask when trying to collect data: "Why don't students respond?" People sometimes get the notion their feedback won't matter in the grand scheme of things, or that their opinions won't be adequately considered - so they don't express them. Some people might think their feedback is obvious, but could easily be overlooked. Sitting on CECA related committees like Co-operative Education Council, and Co-op Student Council, I can tell you firsthand that CECA doesn't know all student concerns - which is why it's important to provide feedback to make them aware.

Opportunities to make your voice heard

With that being said, I'd like to talk about two opportunities coming up in the near future for you to give your feedback.

Firstly, CECA is looking to gather as much feedback as possible about WaterlooWorks, to prioritize improvements for the system in subsequent terms. Later on in the term (after the main matching process, and before exams) your class representatives will be circulating a survey on WaterlooWorks for you to fill out. The survey will take approximately 10 minutes to complete, and your feedback will be passed on directly to CECA. This is a great way to get your opinions taken into consideration by the people prioritizing system improvements.

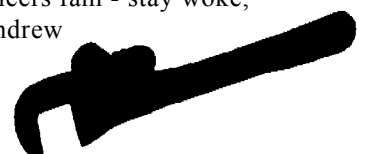
Secondly, the Vice-Dean of Engineering and Associate Dean of WatPD Engineering have taken great interest in doing an honest and complete evaluation of WatPD, to see how well it's per-

forming, and to decide where to go next (improvements, etc.) from this feedback. The biggest problem from their perspective is they don't know with certainty what most students think of the courses, and the program in general. That's where you come in. There currently isn't a date set for this survey, as it's still in the works - but I encourage you all to fill it out once it's distributed. WatPD is very interested in finding out students' honest feedback - to make the overall experience better for students.

Final remarks

As always, if you ever have anything you'd like to discuss, you can contact me at vpacademic.b@engsoc.uwaterloo.ca.

Cheers fam - stay woke,
Andrew



My Engineering Exchange Experience

TRISTAN KUEHN
3B SYSTEMS DESIGN

This is part two of a three-part series on my experiences as part of an engineering exchange in Germany. I'm currently just starting my exam period, so I plan on using this space to reflect on what life was like once I was settled in.

Up to February, the experience of being in classes in Germany was pretty blissful. With the exception of labs, classes here don't have marked assignments or projects of any kind, so I was free to just show up to lectures and learn at my own pace. At the time, this was pretty freeing! I did my best not to use that as an excuse to slack off though, as it means that all of the exams I'm about to write will be determine my entire grade. I now have to work twice as hard to understand any points I glossed over at the beginning, so regardless of the educational system on exchange, it always pays to keep up with the material as you learn it.

While this certainly isn't an issue for all exchanges (there are many potential destinations where English is spoken exclusively), the language barrier was an interesting challenge for me. All of my lectures and tutorials were conducted in German (and all of my exams will be written in German), so I've had to get up to speed with all the technical terminol-

ogy pretty quickly. I came to Germany with an alright grasp of the language, but I certainly wasn't fluent. What I found, though, is that armed with Google Translate, following lectures wasn't too bad because of the clear structure of what was being said. Any specific technical terms could be looked up easily enough and I came to recognize them without too much trouble.

Learning to better communicate with my peers was a whole other can of worms. I wanted to improve my spoken German as much as possible, which meant struggling through expressing some difficult concepts in awkward ways occasionally. I've found that most people, especially younger people in a university environment, speak English here, but whenever I tried to speak German, people were always willing to speak with me and help me get better. In the worst cases, people always understood when I had to switch to English.

A library card and relatively inexpensive transit has been an incredible opportunity to learn. There are a lot of very old buildings and whole cities of the kind that one can't find in Canada around here. I remember having fun learning about the middle ages when I was in grade 4, so it has been very cool for me to see buildings where knights and royalty of the middle ages lived and worked.

Seeing things like a book that was made almost a thousand years ago has been an interesting part of this exchange.

Living in a student residence near the university has also been a very good experience. I've met many friends who are also international students, so whether I'm buying groceries, eating in the cafeteria, or heading to the library to study, I see friendly faces wherever I go. The opportunity to meet people from all over the world with a variety of different experiences and perspectives has been a real highlight of my time here. It is amazing

to have the opportunity to interact with people from so many different countries who have also come to Brunswick to study away from their home country. I've certainly come to understand what the world is like better than I did before I came, and I think that understanding is one of the most important things I've learned over my time here.

Tune in next time for more views about exchange! I'll be wrapping up my exams by then, so I should have a more complete view to sum up the whole experience.



Brunswick via Wikipedia Commons

Tristan is Attending TU Braunschweig For His 3B Term

Prof Personalities

Evelyn Yim



HASAN AHMED
1B NANOTECHNOLOGY

PROF PERSONALITIES

In this issue, I interview a fairly new professor at the university of Waterloo. Evelyn Yim is part of the department of Chemical Engineering, and does a lot of research related to biological systems and nanotechnology. She is extremely passionate about her research, and has an impressive background education. I was lucky enough to sit down with her and discuss her position at Waterloo.

How long have you been teaching at Waterloo?

I've only been teaching here for 1 year, but I have been faculty in Singapore for 8.5 years.

How was your time in Singapore?

I've been to a lot of places, and usually people ask where I'm from. It's a long answer. I was born in Hong Kong, and moved to Canada. I did my grad school in USA, then went to Singapore. It's very nice, and extremely different from Canada. However, they are both multicultural. Lots of Singapore-born Chinese, as well as Malaysians, Indians, and other Asians. The main language is English. Also, the food is REALLY good, and I'm actually going back next week to visit. You can find food anywhere, any time. If Canada's national sport is hockey, I'd say Singapore's is eating and shopping. There are a lot of opportunities for travel, which was good for collaborations. It was also relatively cheap. In terms of school and work, it's a very good place to work due to a lot of hard working people. They're almost always working. Although I liked it a lot due to the diversity and opportunity there, my family is here in Canada, so being here makes me happy too.

What courses do you teach?

I teach 2 courses: NE489 (Special Topics in Nanoscale Biosystems) and a chemical engineering graduate course, CHE760 (Special Topics in Biochemical Engineering).

What is your favourite course to teach?

I can't really decide, since it's about the same. Similar topics are introduced in each course because both focus on research, specifically my research in biomedical engineering. However, the focuses are different. The nano course is more focused on design and concept. You identify a problem and propose a solution to solve the problem. The grad course, on the other hand, is more knowledge based. Since they're graduate students, there's more reports, writing, etc. The class dynamic is also very different.

How'd you end up as prof?

I always knew I wanted to research. I knew what I wanted to do, and I knew how to do it. It was going to be related to the biomedical field, and I wanted to do research. I figured all this out during my last year of undergrad. I drifted towards academia, and just took the different opportunities that came my way. Now I'm here, doing my research and teaching my students what I love.

Favourite part of being a professor?

I like both research and teaching. Doing research and academia is my favourite because I get the freedom to follow my own path, so it's perfect. Lots of work, but I really like it, so everything's fine. In terms of teaching, the teacher student interaction (in class, outside class, in lab, et cetera) is fun.

Hardest part?

Bureaucracy is painful, but it's everywhere. I guess it's not hard being a prof, but different types of challenge

occur at different stages of my career. Paperwork may be difficult for some, but I don't find it too bad. Not painful after a while, since you get used to it. However, sometimes things we do in faculty are activities we don't have training for. Eg. management of lab, starting up business, et cetera. There's a lot of learning on the job as we go onwards. New challenges come up all the time.

What is your teaching philosophy?

I would say, for students in a sense, different generations are different. Catering to each individual is hard, and you have to remain student-centric. Learning goals are set for the class, so I make sure the method used in class is helpful for learning goals. Not just course material, but I also want to make sure things are useful so they can apply them later in life outside of class. Ten years later, you won't remember everything you've learned, but hopefully they still know stuff from my course, then I'll be happy.

If you weren't a professor, what would you be doing?

Hard to say. I've wanted to go biomedical since I was in high school. So I'd be involved in something that area, maybe industry. I'd probably try new things like med school, dentistry, et cetera; so long as I was in that area. Other than that, my faculty friends talk about their hobbies, and second careers after retirement, and I can never relate because I wouldn't know. It's too tough for me to choose.

So interviews are upcoming. Do you have any tips for 1B students?

Start to search EARLY. A lot of the positions are first come first serve. Secondly, try everything, especially something you like. Be happy, and

positive with something you like and have a good attitude. In terms of interview, be prepared, and use the Tatham centre to your advantage. Things I have seen in the past other from Waterloo students is that they were not prepared. Know about the company beforehand. During interview, it might not be that fancy or uptight, so let your potential employer that you're passionate to learn and you're open to learn whatever is coming your way. Whatever they can teach you, you'll learn.

Can you share three tips for undergrads?

Make a lot of friends! Know your friends and build your network. These are lifelong friends. Could also be business partner, spouse, et cetera. Just know them well.

Waterloo is good on this, but in general, still a lot of undergrads realize they need reference after graduation. Ask for references and reference letters! For your first job/grad school, these are super important and can come in handy.

Studying is important, but make sure you have fun and have university life. After you start working, it will not be the same. You won't have the same opportunity to enjoy what you have now.

What is your favourite memory of your undergrad?

It was very enjoyable, I had a lot of good friends. I remember having a design project, it was a fun experience because everyone spent time in the lab and worked together. It was a good bonding experience. I guess it was also the first time we really made something and used something we learned in class to make it. But overall, it was most memorable because of my friends.

Anything else?

Just work hard and enjoy your university experience!

The History and Power of Executive Orders



RATAN VARGHESE
2A ELECTRICAL

In the United States, an executive order is a unilateral order by a President to federal agencies which have the full force of law. Other unilateral orders by Presidents include presidential memoranda (which also have the force of law) and presidential proclamations (which have no legal force behind them). These orders can, and often are, challenged by the courts. Donald Trump has been grabbing headlines for the past few weeks with his executive orders, after years of Conservatives claiming that Obama's executive orders were illegal. The American government was not always this way, however. Once upon a time, executive orders were extremely rare.

During George Washington's time in office, he passed very few executive orders. His orders did not exist to defy Congress, but only to address issues where the Congress failed to make a decision. In those days such orders were unannounced and not numbered: they were usually issued to the agencies concerned and only provided to the public later. Two of the sources I used for this article claimed different numbers of orders by Washington: Thomas DiBacco claimed Washington issued 8 in an article for the **Washington Post**, whereas Brian R. Dirk claimed the number was 4 in

his book *The Executive Branch of the Federal Government: People, Process and Politics*. Washington tried to be prudent because he knew that anything he did had the potential to set a precedent.

Washington's most important order was probably the very first executive order, issued on 8 June 1789. In those days, the President had very few people or agencies to assist him. This first order told the heads of agencies to "impress me with a full, precise, and distinct general idea of the affairs of the United States." Another executive order by Washington declared US neutrality during the French Revolutionary War, between Revolutionary France and Great Britain. It would take centuries for American interventionism to become the norm.

Executive orders started being numbered in the 1900s, but the US government took an interesting approach of retroactively numbering a large number of executive orders from the distant past. Executive order number 1 was Abraham Lincoln's order for a provisional court in Louisiana. This order was followed by several others, including the most impactful US executive order ever: The Emancipation Proclamation, which is considered a presidential proclamation and an executive order.

The Emancipation Proclamation was legally supposed to free all slaves in the Southern States. When the Proclamation was first issued, the government lacked the power to fully enforce it. The practical effect was that slaves that escaped from the Confederate States of America would

be considered free if they reached the north. Executive orders require some basis in the powers of the President established in other areas of the law: in the case of the Emancipation Proclamation, the basis was the Presidential authority to prevent rebellions. Legally, the Proclamation was a tool to crush the Confederacy: this is why it only applied to the southern, "rebellious states". The Proclamation was related to, but distinct from, the 13th Amendment to the US Constitution which abolished slavery and involuntary servitude across the US except as a punishment to a crime. That amendment had to be argued viciously in Congress.

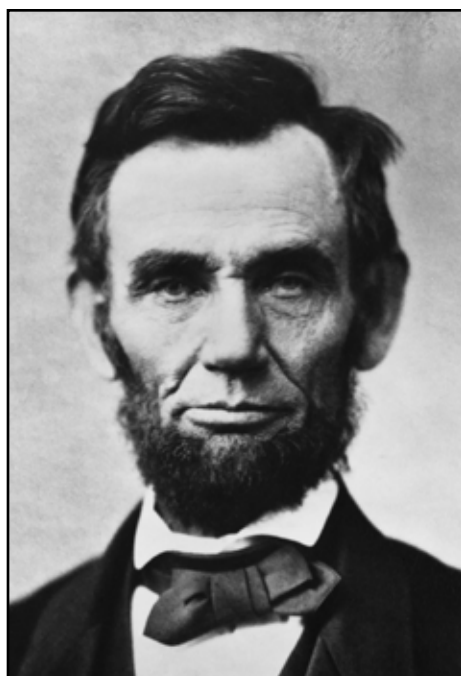
Executive orders continued to be a rarely used tool until the 20th Century, when presidents started issuing orders in the thousands. The record for highest number of executive orders is currently held by Franklin Delano Roosevelt, who issued 3721 executive orders. Many of his orders were economic measures designed to pull America out of the Great Depression. One of his executive orders declared a bank holiday. Another was used to establish the still-controversial Import-Export Bank. Still another was used to establish the National Labor Relations Board. Roosevelt's unpopular National Industrial Recovery Act was passed through the Senate and the Congress, but was deemed unconstitutional by the courts. So Roosevelt issued an executive order attempting to protect it, creating a National Emergency Council to administer the functions of the Act.

The Council was eventually merged with other organizations to form what we now call the Executive Office of the President of the United States.

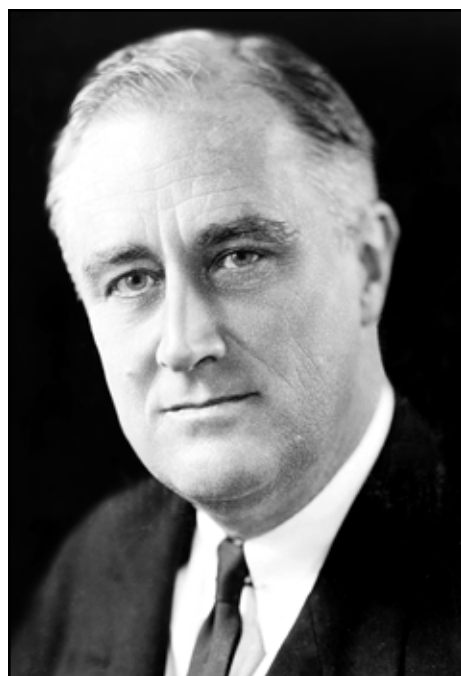
In recent years, Obama has come under significant fire for his use of executive orders. In numeric terms, his order count is not very high. Obama issued 277 executive orders during his presidency, or about 35 per year. This is fewer orders per year than any president in the last 120 years. The main reason Obama's executive actions have been the focus of so much attention is the way Obama used this power: Obama's executive orders have often served to defy an uncooperative Congress.

After hardly a month in office, Donald Trump already has issued 12 executive orders. In addition to Trump's stated campaign goals, it has been suggested that the rapid use of executive orders is an attempt to confuse and exhaust Trump's opposition. How many controversies can we pay full attention to? How many scandalous orders can we rage against before we lose our will for defiance? It looks like Donald Trump will soon find out. He issued executive order 13765 the day he assumed office: this order was to cut down spending on the Affordable Care Act in preparation for its eventual repeal. Executive order 13769 is the extremely controversial order to ban citizens from Iran, Iraq, Libya, Somalia, Syria and Yemen from entering America. Executive order 13771 was the "1 in, 2 out" requirement for agencies to repeal 2 regulations for each one they issue.

As time passes, the American president gains more and more power over "his" government. The number of executive orders per president varies, but each president has the orders of his predecessors to bolster his power. As Congress loses the ability and will to control America, the courts remain the main obstacle to presidential authority. Yet the courts, too, are under attack. "The opinion of this so-called judge, which essentially takes law-enforcement away from our country, is ridiculous and will be overturned!" claimed Donald Trump in a tweet. Yet even if the President had a bit more respect for the separation of powers, the overall trend may well be irreversible. How many voters would vote for a President promising to limit his (or her) own power? How many Presidential candidates would oblige? If Cruz or Clinton or Sanders or Rubio were in office today, they wouldn't limit their ability to complete their own campaign goals. The future of executive orders looks bright. If only we could say the same for the nation issuing them.



Alexander Gardner via Wikipedia Commons



Elias Goldensky via Wikipedia Commons

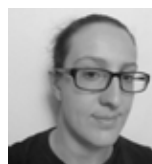


Pete Souza via Wikipedia Commons

United States Presidents Abraham Lincoln (Left), Franklin D Roosevelt and Barack Obama (Right).

These presidents all used different numbers of executive orders for different reasons. Lincoln used one to declare emancipation, Roosevelt used his to bring America out of the Great Depression, and Obama used his to circumvent an uncooperative Congress.

Waterloo Student Startup Epoch App Makes it Easier to Help Refugees



CAITLIN MCLAREN
4B CHEMICAL

Yes, it's official! There truly is an app for everything. Apps for travel, for socializing, anything you can imagine - and coming soon, and app for helping refugees.

A team of Waterloo students, Lisa Tran, Scott Forsyth, and siblings Jade and Keith Choy won the Waterloo division of the 2017 Hult Prize with their startup idea, Epoch, and are soon heading off to London to compete for the \$1 million grand prize. The Hult Prize is a yearly

student competition which challenges students around the world to find a solution to serious social issues, with topics each year chosen by Bill Clinton. It is meant to help young entrepreneurs with ideas that will make the world a better place get their ideas running. We all wish our winners good luck!

This year's topic is "Refugees - Reawakening Human Potential", with the challenge question "Can we build sustainable, scalable, social enterprises that restore the rights and dignity of 10 million refugees by 2022?". The Waterloo idea, Epoch, is a social app for helping refugees integrate into a new community. This can be a very valuable tool, in Kitchener-Waterloo especially,

where around 1000 Syrian refugees have been settled.

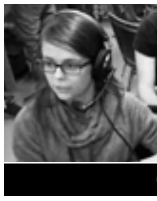
Epoch will connect people who require services with other people who have the time and ability to provide them - ranging from household chores to tutoring. It will work on a time-credit system, where users can utilize time-credits from services they perform for other people to "purchase" services that they need. For example, suppose you see that someone on the app needs help with their spring cleaning. If you help them for a couple hours, you get time-credit for those two hours you spent with them. Then, if you later need help moving, you can use your time-credits to get someone to help you.

Epoch is working with ShamRose for Syrian Culture, a group in Kitchener dedicated to helping the refugees in our community. You can check Epoch out at epochapp.com, and ShamRose at shamrose.ca.

As for what you can do right now to help; many of our new neighbours don't speak English, making it a lot harder for them to socialize, study, and access important services. You can help! ShamRose holds English-speaking sessions at the Queen Street Common Café in downtown Kitchener every Tuesday from 5-7 P.M. If you are proficient in English (and yes, engineers do count!) why not show up and help some Syrians adapt to their new surroundings?

Spring Cleaning

The History of Soap and the Leblanc Process



MEAGAN CARDNO
4B NANOTECHNOLOGY

CHEMHISTORY

I won't lie, the idea for today's Chem-History did arise while taking a shower, but for solid reason. The topic of the creation of soap is traced back to at least ~3000 BC, where evidence of use of "purifying rituals" by Sumerian priests suggested the use of a slurry of ash and water.

This ash, of course, was potash (literally meaning ashes from a pot), a mixture of potassium-containing salts, primarily potassium chloride. The historical prevalence of this substance is actually the reason why the element is called potassium, and even the source of the elemental symbol K, which references its Latin name kalium. This comes from the familiar term of alkali, which itself actually derives from the Arabic word قِلْيَان (al-qalyah), meaning "plant-ashes". Yeah, it was that big of a deal.

This potash (or in general, any alkaline solution) reacts with fatty acids to form the amphiphilic molecules we know and love in a process known as saponification. For the accent Sumerian priests, these came from the greasy fats on their skin themselves (which wasn't horribly effective, you might imagine). For the modern soap maker, these amphiphiles are made in advance from animal or vegetable oils, and usually mixed with fragrance and colours to make the users of said soap to feel special.

Over time, the potash used in the production of soap became an increasingly valuable commodity. It was also used in several other industries, most notably the production of paper and many textiles. For a long time, the source of this was potash from trees (or, more specifically, the ashes of wood from trees), but strangely

enough the excessive use of trees began to become a problem over the course of history, with deforestation running rampant from every industry under the sun chopping down trees like they were going out of style, becoming a resource to be rationed. Alternative sources of resources were needed.

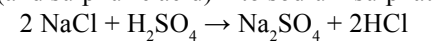
By 1783, the current king of France, Louis the XVI, addressed the issue with a heavy reward for the person who could produce a suitable alternative for potash from readily available sodium chloride. The reward was 2400 french livres (like the book, only the currency was feminine and the book was masculine), approximately worth \$630 000 today. Eight years later, in 1791, French chemist Nicholas Leblanc developed the Leblanc Process, and should have been a very rich man,

were it not for the French Revolution causing more worries for France than the lack of soap.

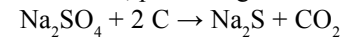
The Leblanc process was incredibly successful, and variations of the process were used for the production of sodium carbonate for over eighty years, until Belgian chemist Ernest Solvay developed the (again eponymous) Solvay process in 1863. However, despite the process' success, Leblanc himself fell upon incredibly hard times. During the French Revolution, he lost his soda ash production plant to the new government, went horribly in debt, and never received his promised reward. Even when he was given the plant back by Napoleon in 1802, he still was horribly in debt and prize-less, and unable to run it, causing him to fall into depression before eventually committing suicide in 1806.

The Leblanc process starts with the al-

ready known reaction for converting salt (and sulphuric acid) into sodium sulphate:

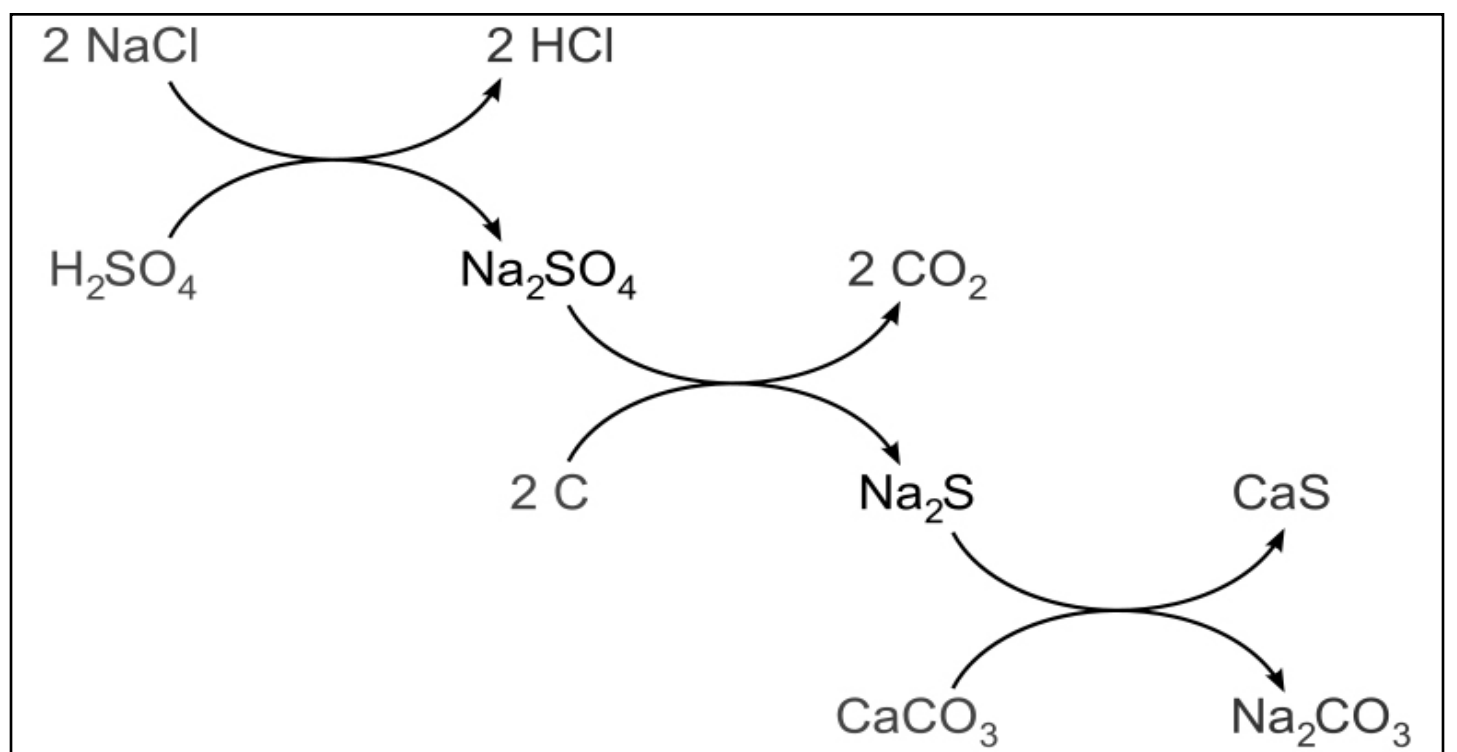


This sodium sulphate is then reduced via the oxidation of coal (carbon) into carbon dioxide, producing sodium sulphide:



This sulphide is then reacted with a calcium carbonate (usually limestone or chalk), resulting in a substitution of the salts' anions to form the desired sodium carbonate, and the by-product of calcium sulphide.

$\text{Na}_2\text{S} + \text{CaCO}_3 \rightarrow \text{Na}_2\text{CO}_3 + \text{CaS}$ The two are then separated via dissolution of the products into water, as calcium sulphide is far less water soluble than sodium carbonate, a process known as lixivation. Evaporating the product dissolved in the water will yield the desired sodium carbonate.



spunk via Wikipedia Commons

Even Though He never Got He Prize, I'm Sure That Leblanc Was
Happy With His Discovery

Manny, Petrie, and Nessy



DONOVAN MAUDSLEY
3B MECHANICAL

OLD NEWS

Here we are again! It's been a while since I've written about some old news, you could also say that you thought this column was extinct. Yeah, I went there.

Honestly though it's been too long since I've sat down and dropped prehistoric knowledge bombs. Today I'm going to talk about some really cool, really big, really dead animals that technically aren't dinosaurs. To clarify that though first I'm gonna walk through what a dinosaur is and what a dinosaur isn't.

Dinosaurs are technically only those reptilian animals of the clade Dinosauria. To be fair, this is a fairly broad term. Humans belong to the Primate clade, which also includes many species of apes, monkey and lemurs. Every species in a clade evolved from a single ancestor, and can contain many different families of organisms. Commonly depicted families of dinosaur include the ankylosauria, the stegosauria, the sauropoda, and the theropoda. Theropods include the majority of the carnivorous dinosaurs including the Tyrannosaur and many species of Raptor.

Alright, now that we've talked about what IS a dinosaur, let's discuss what ISN'T a dinosaur.

My personal favourite example of NOT a dinosaur is the Mastodon. The Mastodon, sometimes known as the Woolly Mammoth, is an extinct genetic relative of the Elephant. You probably have a picture that comes to mind when you hear the name Mastodon (or Mammoth). A large, lumbering beast with a trunk and massive tusks. Yes, this internal picture might be derived entirely from the Ice Age movies, but it's fairly accurate.

The Mastodon, of which the American Mastodon is the best known, went extinct around 11,000 years ago and lived in North and Central America. The circumstances surrounding their extinction are a little murky, as happens when there is literally no recorded history. Many paleontologists tie their downfall to the disappearance of other species of megafauna, and overhunting by hunters of the Clovis culture. The Clovis people were a prehistoric Stone Age civilization from North America.

I find the very idea of the Mastodon intriguing. Imagine strolling through the woods near your house and coming across a two and a half metre tall beast of animal that could literally crush you by sitting on you. Fully grown males could reach over 3m in height, and weight over 10 tonnes. Mastodons had a fairly structured society. The females and youth lived together in herds, and once they reached maturity the males would either live a solitary life or in small groups. Even Mastodons are allowed to have friends.

Mastodons were browsing herbivores, but in a different sense than ordering food online. Browsing is herbivory talk for animals eating leaves, shoots, of fruits from shrubs. Moose browse when they eat.

Moving on from Mastodon and going very far back in time I'm going to briefly discuss the Pteranodon. I've already covered the Pteranodon extensively in a previous issue of Old News, but I just want to cover quickly why they're so cool.

Pteranodons lived during the Cretaceous Era alongside many actual dinosaurs, but are a member of the pterosauria family and obviously not real dinosaurs. Pteranodons are pretty sweet for pretty much one reason: they could fly. The average wingspan of a male Pteranodon was 5.6 m, and larger specimens with wingspans of up to 8 m have been reconstructed. The predators were quite lithe and nimble though; mass estimates range from as low as 22 - 93 kg on average. However, the guesses on the large end of the spectrum have been largely debunked in recent years. Analysis shows that to carry that amount of weight the wing bones of the creatures would have had to have been stronger than aluminum.

Their wing shape suggests that they would have flown in a similar fashion to an albatross. Using rapid burst of wing flapping separated by long sections of soaring, the Pteranodons could likely fly for hours without tiring.

My third and final species of discussion

this week is the Elasmosaurus, an aquatic dinosaur. While the Elasmosaurus IS technically a dinosaur it qualifies for this issue by being just totally awesome. The Elasmosaurus is the closest thing I've seen to a real, dead, Loch Ness Monster. There's really not a better representation of a sea monster. These creatures were around 10 m long, and that was mostly neck. Their relatively small body was equipped with flippers to help it move easily through the water. Looking closer at the skeleton, this creature is literally made of the stuff of nightmares. There's actually a very impressive, and terrifying, reconstructed skeleton at the Canadian Museum of Nature in Ottawa.

Obviously we can't tell the hunting habits of the Elasmosaurus, but based on its physiology there are a few assumptions which can be made. The Elasmosaurus was likely a slow, but agile, swimmer. It probably swam low in the water and used its long neck to snare fish out of schools. The dinosaur also had a small tail, which lead to a funny coincidence when it was discovered. The neck of the Elasmosaurus has 72 vertebrae, and the tail has 10, and typically animals have longer tails than necks. In 1868 the Elasmosaurus was unveiled with its skull on the end of its tail. Also, there's a species of it called the Terminator, so that's awesome.

So there you have it, two sweet non-dinosaurs and one sweet dinosaur. Until next time!

2016 Officially Hottest Year On Record

Third Record Breaking Year in a Row



CAITLIN MCLAREN
4B CHEMICAL

According to NASA, 2016 was once again the warmest year since people began measuring temperatures, more than a hundred and thirty years ago. This makes the third straight year of record-setting global high temperatures; in fact, 16 of the hottest 17 years on record have occurred since the year 2000. In the first half of 2016, all of the months were also the hottest of their respective months on

record.

While climate scientists do not expect that 2017 will be another record-setting year, as El Niño effects are dying down this year, it is still expected to be warm compared to pre-2000s years. You can probably see this outside for yourself; this January has had lots of rain and not a lot of snow compared to the way it was when we were kids. Climate change is not some hypothetical danger in the future; it is happening right now.

On the bright side, CO2 emissions have been fairly stable over the last few years, largely due to China's decreased use of coal. China, though still strugg-

ling with pollution and dependence on fossil fuels, is also the world's leader in renewable energy.

However, the election of Donald Trump might have serious consequences in efforts to reduce the effects of climate change. Trump is on the record as a climate change denier, and has stated his intention to back out of the Paris Agreement. While his intentions for this are not clear, he has also pledged to reduce or eliminate funding for climate change programs, and to make it easier to use public land for fossil fuel production. He has also appointed Scott Pruitt, another notorious climate-change denier, as head

of the Environmental Protection Agency (EPA). Pruitt hedged on this during his confirmation hearings, saying that humans do have an effect on the climate and that the degree of it should be subject to "continuing debate". Even more worryingly, Trump's administration has banned the EPA from releasing the results of studies until they have been reviewed by government appointees. It looks as if there are dark days ahead for American climate science. Hopefully, other countries will be able to compensate for the environmental damage of Trump's administration in the next four years.

Brexit: 6 Months Later

Referendum Still Moving Forward



GABRIELLE KLEMT
2A GEOLOGICAL

You may recall the furor raised over the summer over the great Brexit debate: to leave the EU or to stay? It was one of David Cameron's campaign promises to have the referendum for the country to decide if they wanted to stick with Europe or forge their own path. Unfortunately for David Cameron, he discovered, just as our own PM Justin Trudeau is discovering, that people tend to want you to keep your campaign promises.

No sooner was Cameron elected than he started to back off from the idea of referendum. Unfortunately for him, the country wouldn't let him forget, and neither would the very vocal contingent of pro-Brexit politicians. Lo and behold, the referendum took place and the UK voted 52% to 48% to leave the EU.

As you might imagine, this caused a huge uproar across the world, considering no one has ever left the EU before: what would happen? How would they make the transition? Would they be able to survive the change? One day later, Cameron stepped down from his post as PM and Brexit's staunchest supporter Boris Johnson was seen distancing himself the issue and declaring he would not run for PM, an office that would be facing huge heat in the wake of Brexit.

So now, 6 months later, what is Britain and her new PM Theresa May planning to do to move the Brexit forward, and what's been done thus far? May, the former home secretary under Cameron, was originally against Britain leaving the EU, but since taking the post as head of her country she has declared that "Brexit means Brexit" and she will respect the will of the people.

It's important to note that the value of the pound, always a very strong currency, has remained near a 30-year low since the referendum. However, despite many doom and gloom forecasts saying the economy would just jump right off a cliff if Brexit went through, over all the economy is doing pretty well. I mean, the pound is still worth more than the Loonie so who am I to judge really? Some costs have increased for businesses and for government borrowing, but most share prices have recovered any loss they may have suffered in the initial wake of the vote and the Bank of England cut interest rates for the first time since 2009.

But wait, is Britain officially out now then? Are they separated metaphorically as well as physically from their European chums? In a word: no. In order to officially

leave, they have to invoke Article 50 of the Lisbon Treaty, only created in 2009 and never before used, where each side gets 2 years to decide how to make this divorce as amicable as possible without hurting the children. By children I mean all the British workers in Europe and all the European workers in the UK who are wondering exactly what is going to happen to them. May plans to start the process to leave by March 2017, meaning that they'll be separated by summer 2019. Of course though, since politics is politics, there's a bill going through Parliament now to decide whether or not to even invoke Article 50; it is expected to pass.

What are the next steps then to secure a strong future for the UK? Let's start with May's meeting with US President Donald Trump, who told her what a wonderful thing Brexit would be for Britain. It seems that in the meeting, May and Trump tried to build on the "special relationship" their countries possess, to create a special trade relationship sometime in the near future.

As a result of its imminent departure from the EU, the UK will be leaving the European single market. The single market allows for the free movement of goods and services through Europe, stimulating competition and trade, improving efficiency, raising quality, and helping to cut prices, according to the European Commission. Due to the loss of this important trade deal, the British

government has been scrambling to secure bilateral deals around the world with new and existing partners. Although Trump himself has been an opponent of many existing US trade deals, it seems keen on creating some new ones, specifically with a post-Brexit United Kingdom.

Speaking of trade deals, and there are going to be lots of them pretty soon, the UK plans on continuing trade with the EU, seeking a "comprehensive free trade deal" with "the greatest possible access to the single market". In effect, what Theresa May said in her recent speech on Brexit is that she wants to be in the single market without being under the control of the European Court of Justice and avoiding unlimited flow of immigrants from the EU. She also wants to negotiate a new customs deal with the EU, allowing a common tariff on goods coming from Europe while also allowing them to have trade deals with other countries, something prohibited while they were an EU member. Seems like she wants a lot to me, I hope they can make it all work out.

If you ever decide to read about or listen to anything about Brexit after reading this article, then you might hear the words "hard" and "soft" Brexit being thrown around. The former simply means that the UK would be taking a very uncompromising approach on negotiations with the EU for issues like free movement, a major reason many people voted to leave. Soft is just the

opposite, and an example would be a situation like Norway, which has never been an EU member but which has access to the single market. As a consequence, however, they have to accept free movement of people.

Is anything else happening other than lots of deals soon? I'd say you're likely to see a reduction in immigration, given that Theresa May has said she wants to listen to the people and that's what they're really calling for. For the time being, any EU workers in Britain and vice-versa will not have to leave the countries they're working in; the final say in this depends on what the deal made between EU and UK is, but it's doubtful anything too major on that front will occur soon. It's likely you'll hear more about it in a year when Article 50 is in action and deals are starting to be struck.

Lastly, what about Scotland? While it sometimes feels like Scotland threatens a referendum on independence every few years, another one really looks to be on the horizon. With all 32 council areas in Scotland voting to stay in the EU, Scots are upset about the decision by the rest of the UK and they want to have a say. They're especially upset about leaving the single market and the First Minister of Scotland has said that a referendum is highly likely, but not in 2017.

For more fun worldly drama, keep updating yourself on the issues. There is never a dull moment in news, is there?

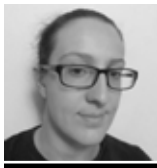
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WEDNESDAY

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★
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LEAGUE

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Christmas Logs, Bowls of Rice and Horse Heads

Five Wacky Holidays



CAITLIN MCLAREN
4B CHEMICAL

5 THINGS YOU DON'T WANT TO KNOW

Since this is Reading Week, we have a holiday! Yay! It isn't a very traditional holiday, but all holidays are fun. Plus, that's maybe for the best. Traditional holidays can get weird sometimes. For example, one city in Ireland has the "Puck Fair," where they honour a random goat for three days and drink till three in the morning (nothing stereotypical there). In Turkmenistan, they have a national holiday to celebrate melons, because they used to have a dictator who liked them and was prone to wacky dictator whims. When he died, the people decided that while bans on lip-synching and TV makeup were dumb, the the melon festival was actually pretty fun, and they kept it. In Eastern Europe, there are multiple festivals in different countries where people dress in strange costumes and make loud noises, in order to scare the Ottoman Turks (history suggests that it wasn't very effective). And, of course, pretty much all festivals anywhere involve setting something on fire.

While that is all very fun, people sometimes take things too far, or in weird directions. Here are five holiday traditions that might not fly well over here.

In Catalonia, Christmas is all about pooping

Well, not all about. That isn't quite

fair. But there is a great deal more poop than one might expect. For one thing, most Christmas traditions now involve a nativity scene (i.e. a set-up of dolls representing Mary, Joseph, Baby Jesus, and various other figures that are part of the Christmas story), the Catalan version also includes a figure of a guy pooping. He is called "El Caganer", which means "The Crapper", and is not at all subtle about it. While traditionally he would be dressed as a peasant, it is now common to have a caricature of a famous person or a politician.

That isn't it, though; another Christmas tradition is the Tió de Nadal, or "Christmas Log", which is indeed a double meaning. It is a hollow log that is covered with a blanket and often painted with a face. On Christmas, children will hit the log with sticks until it drops treats, like with a pinata. Except, with pinatas you do not call them the "poo log", order them to poo, and threaten to hit them harder if they do not poo sufficiently.

For obvious reasons, kids love this stuff.

Molten metal fireworks

The Chinese invented gunpowder and were the first people to have fireworks, but that still isn't the only way to make fireworks. In one village called Nuanquan, people do it... differently. That is to say, they melt a bucket of metal to insane temperatures and throw it in the air with ladles and dash it against cold stone walls. This does create a display of lights, which is called "Beating down the tree flowers". It is exactly as dangerous as it sounds and would probably be banned in most

countries, but this is China we're talking about. Chinese kids have to wade through molten lead up a cliff both ways to get to school. Now eat your vegetables.

Creepy horse heads

For the past few hundred years in Wales, people have celebrated Christmas and New Years with the Mari Lwyd tradition. That is easier done than said - all you have to do is mount a horse skull on a long stick, give it some creepy glass eyes if you are so inclined, wrap yourself and the stick in a long white sheet, and run around scaring people. Of course, you do this in groups and go door-to-door demanding food and alcohol. If the people in the house make an excuse to not let a bunch of drunk guys and a creepy undead horse in, the party keeps singing until they are allowed in anyway.

Japan's Naked Festival

This festival is pretty much what it sounds like. In Okayama, Japan, thousands of men take part in the Hadaka Matsuri, in which being naked except for a loincloth is mandatory. Some variations involve wrestling and goofing off in the mud, but the main festival is basically a massive rugby match. The men all gather near Saidai-ji Temple, where a priest throws a pair of sticks into the crowd of naked men all squished together. A huge brawl follows, and the winner is the man who can successfully get the sticks, run through the door of the temple, and stick the sticks in a bowl of rice. Now, I'm not a Freudian, but...

It wouldn't be Japan if they weren't ex-

tremely organized about the whole thing, and so participants write their name, blood type, and emergency contact on a piece of paper beforehand and keep it in their loincloth in case anything goes wrong. All very sensible, although awkward for the EMTs.

Lupercalia, the wolf festival, not

If we were Ancient Romans, we would have celebrated the Lupercalia last week. It's name was taken from the word for "wolf", but it actually had nothing to do with them. Instead, you would start by sacrificing a goat and a dog, which is frowned upon today but par for the course in old-timey religions. The organizing priests would then pick a couple upper-class young men, who would have blood briefly smeared on them while they laughed. The men would then run around naked except for goatskin thongs - not the underwear, just strips of fresh goatskin around their waste. They would often be joined by other aristocratic men, and would run around the city naked and whacking random people with more leather thongs. Women would seek them out to get whipped, because it was thought to be good for fertility. Or maybe it was just a Fifty Shades situation. Maybe we'll be seeing a revival.

Obviously, when Rome became Christian the church frowned on that sort of thing and Pope Gelasius wanted to ban it. The Senate objected, claiming that it was necessary for the safety of the city, but the Pope didn't buy that at all. What a spoilsport.

Election Reform: Trudeau's Broken Promise

AARON PROPP
1B ELECTRICAL

Justin Trudeau recently declared that he was abandoning his promise to push through electoral reform before the next federal election. This comes despite the repeated promise that 2015 would be the last election held under first-past-the-post, reiterated as prime minister in a speech from the throne. While this might come as a shock to some who only saw this headline, it was clearly heading this way from the beginning and should come as no surprise.

To start, there was never an explicit system proposed, such as proportional representation or preferential ballot. Even the "support of Canadians" was left vaguely undefined as to how many Canadians needed to participate in the consultation process for there to be a consensus of the majority of Canadians. However, the moment where the electoral reform promise went truly south was when then democratic reform minister Maryam Monsef chastised her committee for not coming forth with any concrete conclusions. She particularly took pain to explain how the Gallagher index, an index about how disproportional the distribution of seats in parliament is, was not understandable to Canadians and was thus inappropriate to be included in the report.

Justin Trudeau has put forth various reasons for abandoning electoral reform. One of his reasons is that calling a referendum would be to divisive for Canadians, citing Brexit and Italian referendum on a constitutional reform package, both of which had narrow victories and both of which lead to the resignation of the respective prime ministers.

Another reason cited by Trudeau is that proportional representation would lead to the election of fringe elements of the left and right. This has been a claim levied against proportional representation for awhile. However, looking at a case study such as Germany would demonstrate this to be not the case. Germany, a western democracy in many ways similar to Canada, operates with proportional democracy.

In the most recent German election a grand total of 5 parties were elected to the Bundestag, their parliament. Three of the parties are involved in governing

in a coalition with a broad consensus. And none of the parties elected in Germany are particularly extreme compared to parties in Canada. The most extreme party currently in the Bundestag would be The Left, a German socialist party.

However, Canadians might gain something positive out of this all. Karina Gould, the new democratic reform minister, is instead charged with ensuring the Canadian electoral system was free of cyber security threats and hackers. In light of the allegations in the American presidential election that was Russian interference was involved, this should

could as welcome protection to the Canadian democratic process.

Along with cyber defense, Gould was told work with the Communications Security Establishment to give the best cyber security practices and advice to all Canadian political parties, presumably to avoid the situation which happened to the Democrat party in the United States' recent federal election. An additional welcome part of her mandate is to tighten campaign fundraising rules, specifically to block cash-for-access events that have marred both the provincial and federal governments.



Pete Souza via Wikipedia Commons

Prime Minister Justin Trudeau Speaking with President Barack Obama in The Oval Office in 2016

Mozart, l'Opéra Rock

A Modern Reimagining of a Classic



TIFFANY CHANG
2A CHEMICAL

DISCOVER BROADWAY

Welcome to another edition of Discover Broadway!

We will continue our journey through the wonders of musical theatre. This term, however, I hope to enrich your experience and knowledge of this great art by exploring some behind-the-scenes gurus, underrated performers, and the history of this art.

This time, I wanted to switch things up. After all, gems of musical theatre can be found in any language. A lifetime ago (i.e. my high school days), I used to listen to a French pop radio station, and oftentimes, I would hear numbers from a show called *Mozart, l'opéra rock* (*Mozart, the Rock Opera*). Intrigued and the curious person that I am, I gave the entire cast recording a listen, and man, did I ever love the music!

As far as I know, this musical is a much more historically accurate recount of Mozart's life and work than the famous film, *Amadeus*. The only mismatches with history were the relationships and why Mozart suddenly began to lose fame and success. The show attributed Mozart's fall from fame to Antonio Salieri, an Italian court composer for Austrian Emperor Joseph II. While it was true that Salieri resented Mozart, they respected each other—even attended operas together and reviewed each other's works. Only after two decades after Mozart's death did rumours spread about Salieri poisoning him out of envy. In the musical, Mozart loses his credibility when his play, *The Marriage of*

Figaro, upsets the Austrian royalty, and the play is banned from Austrian theaters.

These are some of my favourite numbers from show:

The show opens with “Penser l'impossible” (“Think of the Impossible”). With the ascension of a new Archbishop of Salzburg who discourages the arts, the future of the Mozart family becomes a lot gloomier. Mozart's father, Leopold, requests leave to tour with his seventeen-year-old son and musical prod-

igy, Wolfgang, but the Archbishop rejects the requests and tells them to quit if they are dissatisfied. Leopold and his daughter, Wolfgang's older sister Nannerl, lament the state of Salzburg under the new Archbishop, but they realize that life must go on, and Wolfgang must find commission elsewhere while Leopold stays behind, since the family cannot afford to be without work—even if it means working under an unsupportive patron.

I absolutely love “Je dors sur des roses”

(“I Sleep on the Roses”), which closes the first act of the musical. It is a beautiful ballad in which Wolfgang reflects on the humiliation, betrayal, and suffering that he had endured, upon realizing how lonely he was and that all doors had closed on him—he decides that he will remain true to his old dreams and aspirations for his musical career, despite who or what stands in his way.

Another number that I adore is “L'assasymphonie” (“The Assassinate Symphony”). This was actually the song that I had heard on the radio on various occasions and propelled me to listen through the entire show. He is conflicted about his options after Wolfgang had completed *The Marriage of Figaro*: he realized that the Austrian monarchy would never approve of the opera, so he could easily run Wolfgang's reputation by playing this card to his advantage. However, he acknowledged that Wolfgang's work was, once again, sublime, and laments his inability to compare with his rival's talent, despite dedicating himself to his work day in and day out.

Overall, I would recommend this musical as great workout music—it is mostly loud, energetic, and upbeat. I would not recommend treating it as studying music, unless you are accustomed to listening to loud music while cracking down on schoolwork.

Thanks for joining me on another musical adventure! Music is a great way to begin learning a new language, if that is something that you are interested in. And who knows? Perhaps you will find other interesting shows in a foreign language simply by giving one cast recording a chance.

Tune in next time!



Otto Erich Deutsch via Wikipedia Commons

**The Legendary Composer Wolfgang Amadeus Mozart,
Whose Life and Music are the Inspiration for
*Mozart, l'Opera Rock***

Another Dose of CGP Grey

From *Hello Internet* to *Cortex*



RATAN VARGHESE
2A ELECTRICAL

RA(TAN) LINES

Last issue, I claimed that *Cortex* lacked some of the interesting personal chemistry in CGP Grey's other podcast, *Hello Internet*. Feeling guilty from making an unjustified statement about Grey, I took the only reasonable course of action: binge-listening to *Cortex*. Turns out ... I was entirely correct. *Cortex* is a podcast about Myke Hurley's quest to understand CGP Grey's working life. At least that is how it began, as current episodes are more Hurley-focused.

Myke Hurley is the founder of Relay FM, a major podcast network. He is not the “human” counterpart to the “robotic” Grey in the way Brady Haran is in *Hello Internet*. He does try to get Grey to understand the wider population, but never reprimands Grey for his mechanical, systematic approach to life. Quite the opposite: Hurley's aim is to see the world through Grey's eyes. “I'm becoming just like you, it's horrific,” said Hurley in one episode. The joke is of course the idea that becoming Grey would be horrific. Grey himself views himself as absolutely mundane: to him, the whole concept of this podcast seemed ridiculous on its face.

What is CGP Grey's working life like? Having a fleet of iPads, multiple bags with the exact same contents, tracking every second of the day to calculate the

financial worth of each moment... these are all simply reasonable and normal behaviours, or Grey would have you believe. He places some extra cash in all his bags in case he gets locked out of the house without his wallet. He has a long checklist of tasks he follows to the letter whenever he uploads a YouTube video. He has opinions on the correct type of iPad background, and the correct way to arrange app icons. He needs Apple to add more granular notification settings, or at

least allow the user to declare more than 99 “VIP”s whose phone calls can circumvent “Do Not Disturb” mode. Did I mention Grey uses Apple products?

Now and again there is a funny little anecdote, or information about one of CGP Grey's videos. In particular, there is an episode about Grey's “Rules for Rulers” video, with a discussion of some of Grey's personal experiences with a power struggle his university days (Physics students seeking an Economics minor: bet-

ter watch out!). However, you shouldn't subscribe to *Cortex* in the hope of mining such gems. Unless you have the interest (or patience) required to navigate hours upon hours of iPad productivity tips, it may be better to cherry-pick cool episodes.

Cortex updates once or twice a month. That's fine: while I am genuinely interested in the prospect of becoming more Grey-like, I am not exactly shaking with anticipation.

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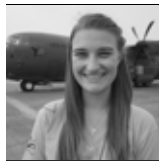
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Turning the Tower Purple



GABRIELLE KLEMT
2A GEOLOGICAL

ENGSOE EVENTS

Hey all welcome back to the column where I write about events that I went to and you probably didn't, hence you reading this article. I wish I could say I was writing this from the warmth of a hot sunny beach in Punta, but sadly I had to stay in the great white north this holiday to study for my 4 midterms after the break. Yes, count yourselves lucky if you get a hell week because I'd kill to be reading actual books instead of textbooks right now.

As previously noted, we've reached halfway through the term, meaning profs trying to scare us into taking their courses more seriously, and that I've stopped going to the gym. Just kidding, I never went to the gym. It also means less events for people to attend, because really, who's going to events when you could be at home in your PJs crying about the direction your life is headed after procrastinating for 48 solid hours and coming to the realization that you have your exam in less than 12. Although there were some fun events which took place since my last update, I too fell prey to midterm fever and was able to only attend one.

With National Engineering Month, or March as it's sometimes known, just around the corner of this reading week, it's time to look forward to some of the things we'll be

doing at Waterloo to celebrate, Starting with the first event, Build a Rube Goldberg!

Each year the Engineering Student Societies Council of Ontario (ESSCO) organizes a Rube Goldberg to light the CN Tower purple in honour of engineers all across this great nation, or something like that. The event is actually pretty cool, it combines Rube Golbergs from Universities across the province to eventually connect to the Rube in the foyer of the CN Tower, where a special button gets pressed to light up the world's (second) tallest building a very exciting colour.

Of course, you may be reading this and saying, "So what exactly is a Rube Goldberg, Gabrielle?" Which would be a is valid question because it has a very strange and misleading name. There are some pretty awesome examples out there; one cool one is the OK Go music video for This Too Shall Pass. I'll wait while you go look that up. Simply put, a Rube Goldberg machine is a series of different, overly complicated functions that combine to complete one, usually fairly simple task. This can be anything from lighting a match, to calling a phone – which is what our Rube Goldberg had to do.

You see, the way ESSCO has the Rube Golbergs from universities across the province combine together to light the CN Tower is through phones. Our machine had to start when my phone was called, and had to end by calling another university... so that their Rube could start, etc. until reaching whichever school is at the CN Tower. Now of course I don't have to tell you how

totally impossible that would be to organize logistically, so it's more of a cool way to fit the videos we make together than anything else.

It's been a few years since Waterloo has participated in this particular event, which I thought a total shame because who doesn't want to build a Rube Goldberg!? How young and naïve I was to think such a thing. As someone who had never made a Rube Goldberg before, organizing the construction and filming of such a high profile one as this was a tall task that for which I did not realize I was unprepared. But, as one of two NEM directors for the term, I was determined to see this through. (As was my co-director Liam, also un-learned in the ways of Rube Goldberg construction.)

If we had more experience, we might have known our budget and construction team were too small, our design too un-specific, and our equipment too faulty. Ignoring all that, it was on a cold Friday afternoon in POETS that we determined engineering students set about building our first ever Rube Goldberg machine.

There were some stipulations imposed on the construction by ESSCO that made things a little more complicated. For one, there could be no motorized or electronic elements. That meant elements using an Arduino was out, as well as a fun idea I had that used a fan. It was back to basics using a lot of cardboard, duct tape, balls of all shapes and sizes, tons of string, and some Hot Wheels cars because why not?

Even when the whole team was there, as

well as some extra people who were hanging out in POETS and took pity on us, the going was very slow. In all, I estimate that just building the machine took us upwards of 5 hours. Then we had to film. If you are so blissfully ignorant as myself to believe that just because every component of your dynamic puzzle works individually, that they will work together in harmonious unity, do not read further. Remain ignorant. For those for you who know where this story takes a ghastly turn, keep reading and laugh at us fools.

Filming the Rube Goldberg machine took us almost an additional 2 hours. Everything would work perfectly, and suddenly at the last second, something that had never gone wrong before would go wrong and the whole take would need to be scrapped. Over and over again we set up the start, in and of itself a difficult thing to do, and over and over again something would go wrong. Even the dominoes refused to fall. How is that possible? The answer is you just don't use dominoes in a Rube Goldberg machine. It is just not done.

As I am not still in POETS, we did finish the machine, though some strategic splicing of the videos may have taken place... If you're free in a few weeks on Friday March 24, come to POETS to check out the screening of the video and maybe get some popcorn.

I hope you're all enjoying your break and I hope to see you at EngSoc Goes Bowling on March 3rd. Be there or be boring, it's going to rock!

Cream Cheese Quesadillas



BRYAN MAILLOUX
3A MECHATRONICS

HALF-BAKED

Welcome back for Issue 3 of Half-Baked! Hopefully everyone's exams went well – having the whole of reading week off is definitely a well-deserved break after all that studying. If you're like me, you've probably been eating all kinds of unhealthy stuff while studying as well. Now that you have so much extra free time, maybe you can start making some healthier snacks as well. Not that this issue's cream cheese quesadillas are the healthiest thing for you either, but they're still a step up from eating two Kit-Kats and calling it lunch.

I actually tried these for the first time at Montana's, where they decided to call them antojitos instead of quesadillas. They seemed simple enough to make – just a tortilla with cream cheese and bell peppers in them – but I still wanted to find a recipe online for them. Turns out, antojitos are just any sort of Mexican street food, including anything from quesadillas to tacos to tamales. So, calling these things antojitos is really a misnomer. I'm not really sure you can call them quesadillas either, cause you roll them up instead of laying them out on the baking sheet, but whatever, I'll just go with it. All you have to know is that they taste really good and they're amazing snack food, even if they take a while to prepare.

Cream Cheese Quesadillas – makes 4 quesadillas

Ingredients

4 tortillas

A tub of spreadable cream cheese (you won't need the whole tub... well you can use the whole tub if you want I suppose)

About a quarter-block of cheddar cheese, grated

One bell pepper, diced

1 or 2 green onions, chopped

4 chicken or fish strips (optional)

Preparation

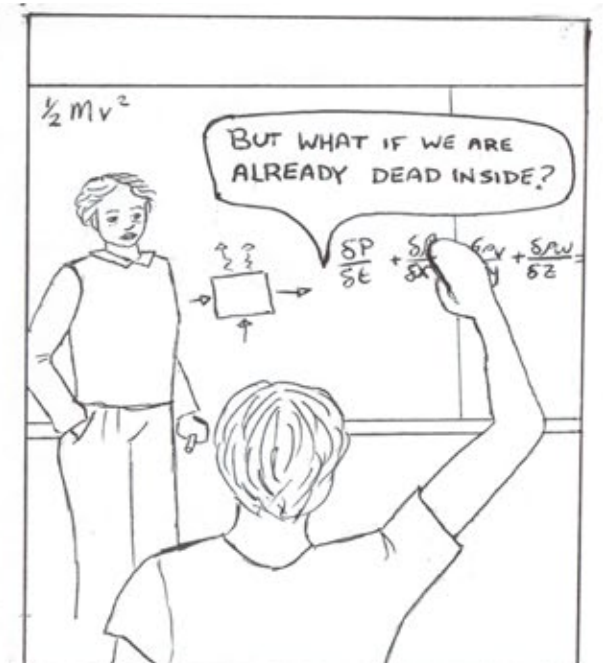
Preheat your oven to 350°F. Lay the tortillas out flat and start spreading cream cheese all over them. Like, the more cream cheese the better – adding more cream cheese will help the cream cheese texture and flavour stand out. Next, sprinkle some cheddar cheese on top of each of the now cream-cheese covered tortillas. Add some of the diced bell pepper and chopped green

onions to the tortillas, and if you want put some cut up chicken or fish strips on as well, but if you're adding some meat make sure you've cut it quite small. Fold the two ends of the tortillas in, then wrap them up so all the contents of the quesadilla are enclosed, like a nice little burrito. Finally, place the quesadillas in the oven for 7-8 minutes (but keep an eye on them to make sure the tortillas don't burn). And there you have it, a nice little snack for when you watch Netflix or do whatever your preferred post-midterm relaxing thing is.

These go really well with salsa, sour cream or hummus, and at Montana's they were even served with a pesto sauce that was quite good. It's quite a lot of work for just a snack, but I'd say the taste is more than worth it. It certainly beats eating out for a whole week straight.

PDEs 101

BY DONOVAN MAUDSLEY AND LEAH KRISTUFEK
3B MECHANICAL AND CHEMICAL 2016



Super Bowl LI Recap

Everything's Bigger In Texas



DONOVAN MAUDSLEY
3B MECHANICAL

What makes a truly great football game? Most would say explosive plays, edge-of-your-seat excitement, a comeback attempt, and sudden death overtime. Super Bowl 51 between the New England Patriots and the Atlanta Falcons had literally all of these. I'm going to walk through the action and then break it down.

Not much happened in the first quarter. Both teams punted a few times and the defenses looked solid. The Falcons running game got moving a little bit, but neither team was able to score. The Patriots came out in the second quarter and started moving the chains, but turned over the ball and allowed the Falcons to run in for the first score of the game. Following a New England 3-and-out, the Falcons took over again and Matt Ryan threw his first ever Super Bowl touchdown. The Patriots were now down by 14, and started throwing the ball more. They started moving down the field, but then Tom Brady threw his first ever playoff pick-6 and the Falcons led 21-0. The Patriots got the ball back and scored a field goal before halftime.

At this point the game was starting to look like a blowout. While the Super Bowl is one of the world's biggest sporting events, it's usually not a very good game. To put it simply, good football teams don't let the other team score and enjoyable games have lots of scoring. Last year the Broncos suffocated the Panthers. A few years ago the Seahawks smothered the Broncos. Defenses win championships. Super Bowl 51 was beginning to look like another case of this. The Falcons defense had faltered

frequently throughout the season, but had finally found its rhythm. They kept the pressure on Brady, sacking him multiple times, and didn't give up many yards on the ground.

The start of the third quarter was more of the same, with the Patriots going 3-and-out and the Falcons responding with a touchdown. 28-3 is a pretty big deficit in any sport, and it was looking like the Patriots were going to choke.

New England's head coach Bill Belichick is legendary for his game time adjustments, and general ability to build and run a game plan. The man's brain is actually just a supercomputer specially tuned for football analysis. These

adjustments range from assigning the blocking responsibilities differently to swapping out players entirely to get better matchups. When the Patriots are ahead, Bill likes to tweak things here and there to keep the pressure up, but when they are down he throws every idea he has onto the field.

So yeah, the Patriots started pulling out all the stops to get something going. They played a slightly more conservative game and put the ball in Tom Brady's hands more. The last few drives of the game prove that you can't EVER count out Touchdown Tom.

Brady started sending the ball to his favourite receivers, Danny Amendola

and Julian Edelman, more often and it paid off. The Patriots scored a touchdown but missed the extra point to round out the third quarter and a kicked a field goal shortly after that.

The Patriots kept going with ten minutes left in the game and down by two scores. They stifled the Falcons offense, having finally figured out how to shut down Ryan and company. Patriot running back James White went to work on the ground and found the end zone. Julian Edelman made probably the greatest catch in Super Bowl history for a much needed first down, which led to another touchdown. With one minute left the Patriots had pulled off the biggest comeback in Super Bowl history.

Overtime was a historic event. No NFL Championship Game has gone to OT since 1958, and that was prior to the Super Bowl era. It was over fairly quickly though: the Patriots won the coin toss and marched the ball down the field for a touchdown.

Records were shattered throughout the game. The Patriots won without ever leading in score. James White had the most receptions ever in a Super Bowl. Tom Brady beat pretty much ever quarterback related record that there is, and made a serious case for being the best quarterback to ever play the game. That's the reason behind all the GOAT (Greatest Of All Time) memes online right now.

For real though, it was a great game. I was the only one of my friends cheering for the Falcons, which was kind of a bummer. My uncle has been a die-hard Falcons fan for my whole life, and I have no special attachment to the Patriots (outside of Madden, where they're just so good). If you remember back to my article from last issue, I'm now 0-4 picking the Super Bowl Champ in the last 4 years. I'll get it eventually...



Mark Sardella via flickr

Bill Belichick and Tom Brady in 2013. The Pair Broke Records by Winning Super Bowl LI, Becoming Respectively The First Coach and Player To Win Five Championships.

Raptors Make Midseason Adjustments

Is Ibaka the Right Fit?



ELIZABETH SALSBERG
4B NANOTECHNOLOGY

THE BENCHWARMER REPORT

Raptors general manager Masai Ujiri brought power forward Serge Ibaka to the Raptors this week at a critical time for the team. The Raptors have won only 5 of their last 16 games, a dismal record thus far in 2017. They have slid from second in the conference down to fourth, with the formerly razor sharp offence looking dull. Defense, of course, remains a lingering issue, exacerbated by the lack of offence. The absence and inconsistent offensive play of workhorse Patrick Patterson among others hasn't help either. Indeed, these Raptors looked an awful lot like the 2015 team that keeled over in four games to John Wall and the Washington Wizards in the first round.

Ujiri, well aware of his teams' plight, sent guard/small forward Terrence Ross along with the lower of the Raptors' two first round picks to the Orlando Magic for Ibaka. Ibaka helped the OKC Thunder to the NBA finals in 2012, where he was a pivotal piece defensively against the three amigos, King James, Wade and Bosh. This year with

Orlando, he's averaging 15 points and 7 rebounds. With a better offensive team like the Raptors, he will undoubtedly be a frequent double-double contributor. He also brings high-calibre basketball experience from the Durant era in OKC and is an absolute monster on defense. Head coach Dwane Casey was delighted with the signing. Though Ibaka is strictly a rental for the time being, Ujiri intends to re-sign him as a free agent in the offseason.

The deal also means that Norman Powell will see more well-deserved playing time in place of Terrence Ross. Powell brings a more complete game; he is a stellar defender, he drives the net like no one's business and he can shoot the mid-range jumper. He's a much smarter player than Ross, demonstrating much better shot selection, and the ability to spread out the floor, suck in the defense and kick it out to the perimeter for open looks.

So what does the Raptors lineup look like now? If you're Casey, there's certainly plenty of palatable options. He will likely go with Lowry and DeRozan, with Carroll, Ibaka and Valanciunas up front at the 3, 4 and 5 spots respectively. Off the bench, Cory Joseph and Norman Powell take the backcourt, with Nogueira and rookie Jakub Poeltl taking over 4 and 5 duties while Patterson is

out. DeRozan will likely see minutes at small forward to give Carroll a rest. Carroll has been sensational of late, frustrating the opposing offence to no end while sinking multiple threes a game. We are finally seeing the Carroll from Atlanta who contained King James—to the extent that King James can be contained that is. The defensive begins and ends with this man—between him and Ibaka, the Raptors' defense should be much more consistent.

The Raptors should be a changed team coming out of the all-star break. They start off with a home game against division rival Boston Celtics at the ACC

this Friday, very much a must-win. The Raptors are sitting four games back of the Celtics and seven back of the Eastern Conference-leading Cleveland Cavaliers. If the playoffs started today, the Raptors would face the red-hot Atlanta Hawks, with home-court advantage. If the past is any indication, the Raptors will need home court advantage in the first two rounds to make it back to the Conference Finals. They'll need to earn it with defense, quality shot selection and a hungry, serious, and focused attitude. They have the tools, the coaching and the capability. Let's see if they can make good on it.



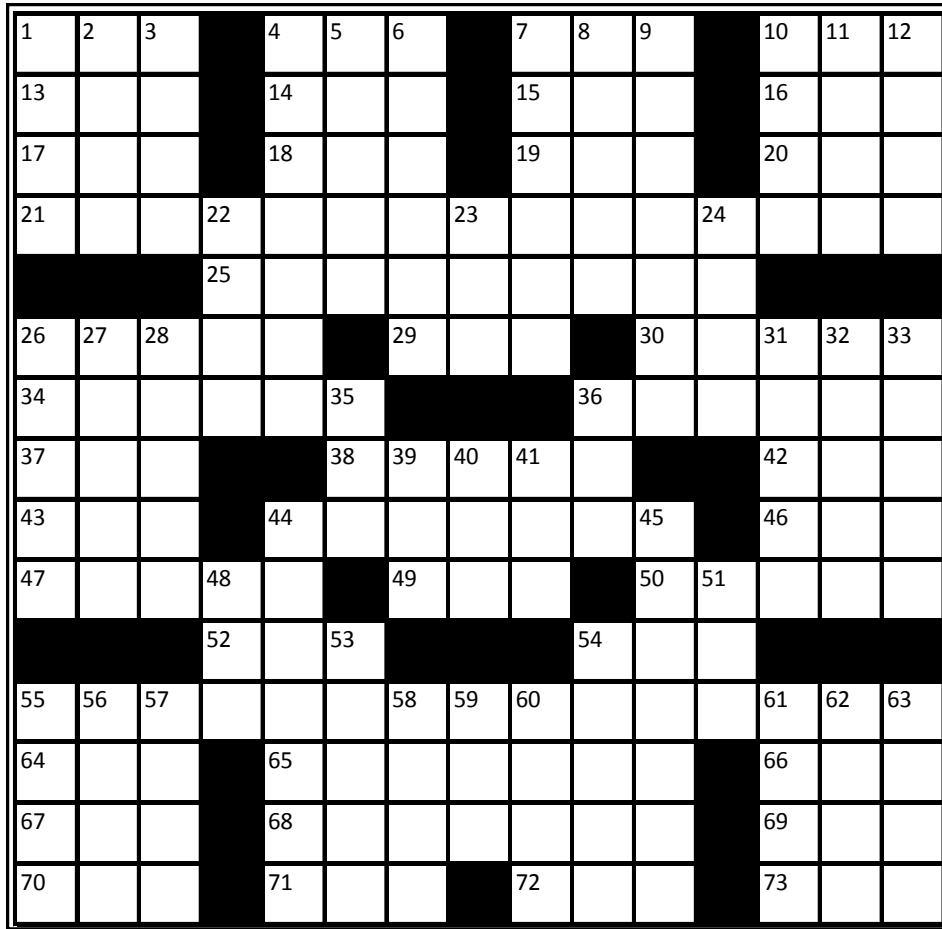
Augustas Didzgalvis via Wikipedia Commons

Can Ibaka Help The Raptors Go Deep in the Playoffs?

The Iron Crossword

Family Game Night

CAMERON SOLTYS
3T MECHANICAL



ACROSS

- 1: Female pronoun
- 4: Green-egg eater
- 7: North American Basketball League (abbr)
- 10: Peeping ____
- 13: Now-defunct security algorithm (abbr)
- 14: ____-Wan, Star Wars main character
- 15: Second-largest Christian church (abbr)
- 16: French indefinite article
- 17: Bird-and-bee mimicking boxer
- 18: New York art museum (abbr)
- 19: American Wrestling Association (abbr)
- 20: Egypt's child-pharaoh
- 21: USA-skew of a train-traveling board game
- 25: Medical problem officially known as epistaxis
- 26: A hill to _____ (2 wd)

- 29: Middle Eastern flute
- 30: The mists of ____
- 34: Response to a question
- 36: Snake featured in the movie "Jumanji"
- 37: Common liberal arts citation style
- 38: Method of deployment
- 42: Yoko ____, Japanese artist
- 43: Long thin fish
- 44: Attendant at university or high school
- 46: Tree-like being of Tolkien lore
- 47: Issues from a hot pot
- 49: Employer Health Tax (abbr)
- 50: Greek god of the underworld
- 52: Notice of Assessment (abbr)
- 54: Cool or awesome
- 55: Game show-like party game
- 64: Paintings or sculpture, for instance
- 65: Large, devastating wave
- 66: Home for foxes
- 67: Grassland

- 68: Pagan or heretic
- 69: We ____ the engineers!
- 70: "Magic: The Gathering" variant with 100 cards
- 71: Surf News Network (abbr)
- 72: Vietnam-era knife manufacturer
- 73: Global multinational enterprise (abbr)

DOWN

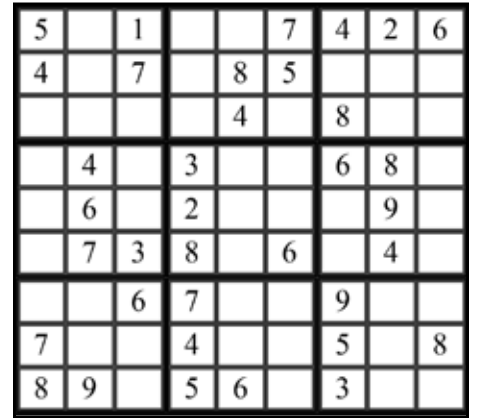
- 1: Hit or slap
- 2: Hovering aircraft (abbr)
- 3: Long storied poem
- 4: Unknown person
- 5: Aids and ____ a criminal
- 6: Clothing lost by a kitten
- 7: Almost
- 8: David ____, British rock musician
- 9: Private school
- 10: Ballet garb
- 11: Responsibility
- 12: Greek term meaning "after"
- 22: Understand
- 23: Order of the British Empire (abbr)
- 24: Change or correct
- 26: Knighted women
- 27: Entryway, especially for fluid
- 28: Exchange of money online
- 31: Wearing footwear
- 32: 2204 pounds
- 33: Nasal mucus (pl)
- 35: Stuck in a ____
- 36: Permanent pencil
- 39: Institute legal proceedings
- 40: Combine
- 41: Receive
- 44: Flattens
- 45: Melting
- 48: Union
- 51: Blue, large, rotten (abbr)
- 53: Hong Kong electronics company
- 54: Wherefore art thou ____?
- 55: Connecticut university
- 56: Adorn with metal
- 57: Thirteenth-largest US state
- 58: Another name for the brush-tailed phascogale
- 59: Stock code for K92 Mining Inc.
- 60: Sodium Hydrosulfide
- 61: The biblical first man
- 62: Organization that runs the Large Hadron Collider
- 63: Joint of the leg

Sudoku

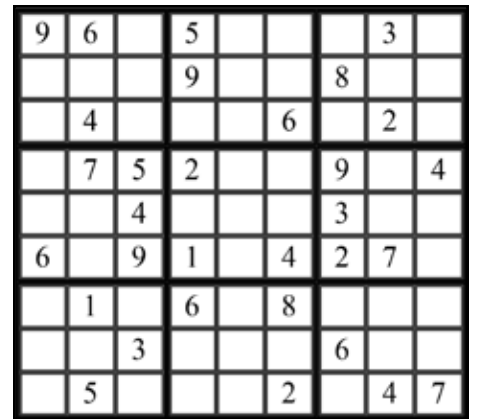
#2017-03

MEAGAN CARDNO
4B NANOTECHNOLOGY

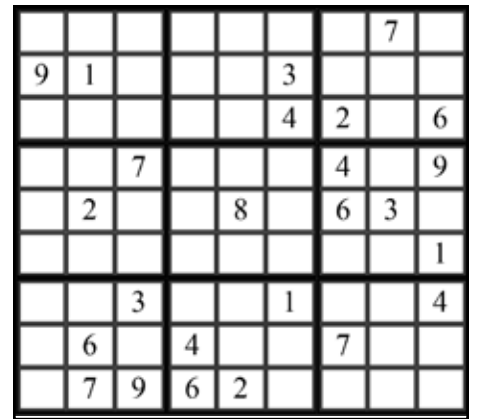
Medium



Hard



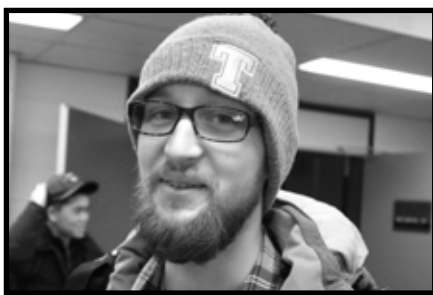
Very Hard



Solutions for previous crosswords can be found on *The Iron Warrior's* website at iwarrior.uwaterloo.ca/distractions.

THE IRON INQUISITION
Vince, Leander, Hira, Sumaita

"What advice would you give first year you?"



"More Sleep!"
Jeff Watchorn, 4B Nano



"There's Gradcomm Pizza on Wednesdays."
Matt Post, 4B SYDE



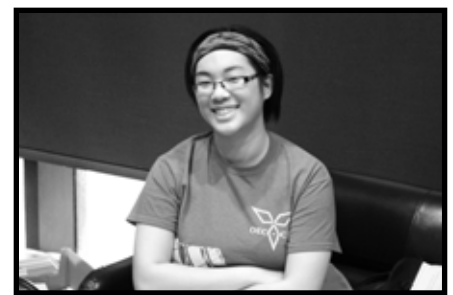
"It doesn't get easier, you just get used to it."
Abdullah Barakat, 3T Mech



"Buy a house, you'll be here a while."
Keegan Skoretz, ?? Mech



"Play with more Lego."
Taylor Williams, 4B Mech



"Buy Power Ball Ticket 8734419 on 10 January 2016."
Katie Chen, 4B Mech