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THE IRON WARRIOR

THE NEWSPAPER OF THE UNIVERSITY OF WATERLOO ENGINEERING SOCIETY

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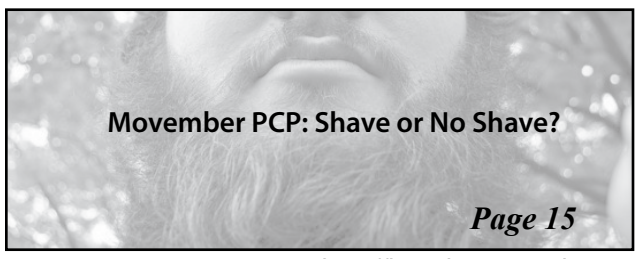

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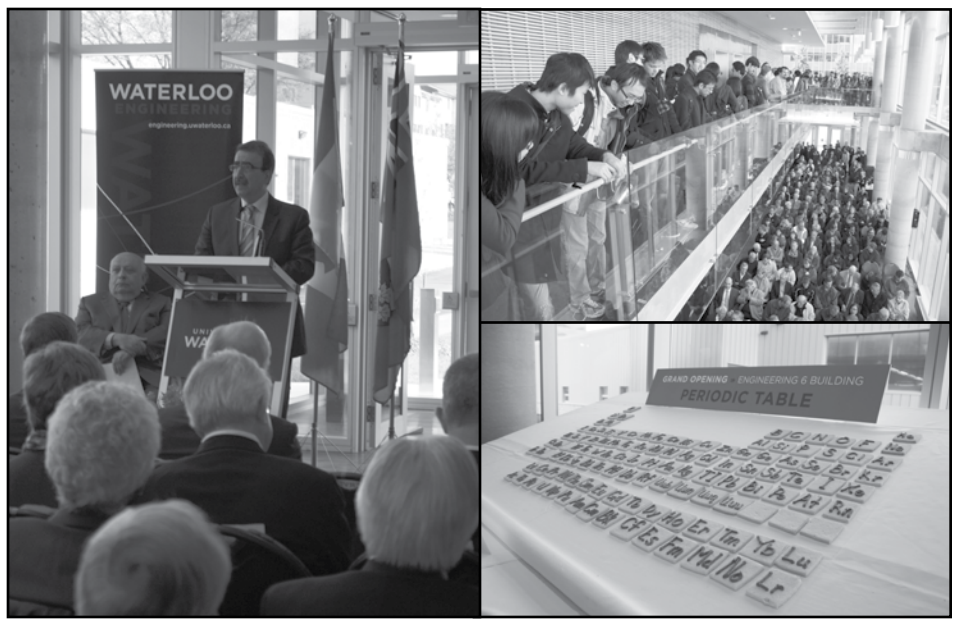
E6 Grand Opening

ANGELO ALAIMO
4N ELECTRICAL

It was one year ago that Engineering 5 was officially opened, and once again crowds were drawn to hear speeches from those involved. It was standing room only as hundreds packed the "Woodbridge Group" atrium inside Engineering 6 for the building's grand opening. Rows and rows of chairs were set up for attendees, but after filling up quickly, people spread out around the back, the side, and even the 2nd floor of the atrium. An edible periodic table of elements made of cookies was set up to celebrate the occasion, with each element being represented by its atomic symbol handiced onto each cookie.

Dean Sedra kicked off the opening by talking about the how building was a product of a space study in 2006 as part of the Vision 2010 campaign. The Faculty identified the space they required and put forth plans for the buildings well in advance of any possible funding they would need to actually construct the buildings. This planning paid off after the Federal Government implemented their Knowledge Infrastructure Plan (KIP) as part of their economic stimulus plan. Receiving funding from KIP required projects to be "Shovel Ready" – that is, fully planned and ready to break ground immediately. The Faculty was so ready to implement this project that Dean Sedra even joked, "David Johnston, the President at the time, and myself as Dean, we had shovels ready in the trunk of our cars."



Courtesy, Angelo Alaimo

President Hamdullahpur and Dean Sedra at the E6 Grand Opening

The Department of Chemical Engineering will fully occupy Engineering 6 bringing much needed office space as well as state-of-the-art research lab space for the Department to accelerate their innovation. Tom Duever, Chair of Chemical Engineering, explained, "The building will allow us expand our research programs, carry on cutting edge chemical engineering research, but most importantly, train the next generation of chemical engineers that are so vital to our economy." Duever also itemized a expansive list of research currently taking place within the department, including developing technology to recycle scrap tires to make new rubber products, incorporate wood and agricultural fibers into polymer byproducts to develop light-weight materials for automotive manufacturing, and new sensor development to monitor drinking water. Duever continued by stating the facility will allow the department to attract the very best faculty members, graduate and undergraduate students from not only just Canada, but from around the world.

After all the speeches concluded, the ribbon cutting took place just outside the main east entrance of the building. The ribbon was cut by Drew Higgins, a Chemical Engineering Graduate student, John Milloy, MPP for Kitchener, Thomas Duever, Chair of the Chemical Engineering department, Adel Sedra, Dean of Engineering, Feridun Hamdullahpur, President of the University of Waterloo, Peter Braid, MP of Kitchener/Waterloo, and Donald Schmitt from Diamond+Scmitt Architects.

Ground broke for Engineering 6 in September 2009, and construction got under way soon after around November of that year. The building was designed by Diamond+Schmitt Architects in Toronto and construction management was carried out by Aecon's building group. The building hit substantial completion over the past Spring term and move-in took place soon after. The $42 million funding for the building came from three main sources – The University of Waterloo, the Government of Ontario, and the Government Canada.

Remembrance Day 2011

TAYLOR LAMBERT
1A NANOTECHNOLOGY

Remembrance Day is a day of ever evolving meaning. As children, we merely remember receiving poppies and sitting on hard gymnasium floors through long assemblies; being told to remember, and hearing the stories of the past, yet their message was ultimately lost on us. We heard the word "freedom" and were told to remember and be thankful, yet we couldn't grasp the concept of freedom for we couldn't define sacrifice.

As children in Canada our hardships are limited. We often don't realize that the ease of our lives is a direct result of others pain and hardships. Freedom is a concept that is hard to grasp; hard to define, and therefore at times hard to appreciate. Yet as we get older, as we learn our history as Canadians, a definition and appreciation begins to form.

My appreciation for my freedom came while I was in Uganda, Africa. I had traveled there to teach, yet after the first day I realized I would be more of a student than a teacher. I had utter loss defined for me; I heard stories from hundreds of orphans who had witnessed their families' gruesome deaths. I then had fear defined for me; when I learned that the children didn't have their ears pierced for vanity like us, rather their piercings ensured their safety. For once the children are considered to have shed blood, they are considered impure, and free from the threat of abductors.

It is a reality we don't have to face. A reality that is even hard to imagine. Yet it exists not too far away. It was a reality I knew not of while I was sitting on that hard gymnasium floor. It is a reality we will never have to face, because we are free. We are considered a free nation yet we are free because we are not forced to fear, and we can maintain our innocence as individuals and a nation. There is a reason for our eternal innocence and courage, thousands and thousands of reasons.

Thousands of men and women have given their lives so that we as Canadians can be free; so that we can enjoy the gifts of freedom. It's something of such gravity, that those who didn't even know us fought to give us our futures. It is a hard gift to fathom. It is something we couldn't understand on those gym floors, with our poppies proudly displayed so many years ago. We couldn't understand sacrifice, many still don't. It was something I only learned this past year.

We all know that a time will come for everyone, but when you fall in love with someone, all of a sudden life has no timelines. However, when you fall in love with a soldier, life and time are completely altered. Within the first year or a lifelong relationship, I learned what true sacrifice is. Not only do the men and women who serve our country offer to pay the ultimate sacrifice, all who know and love them do too.

He hasn't even deployed, or even graduated yet from the Royal Military College of Canada, but we've had those talks. Addressed the fears of not coming home and the greater fear, I've come to learn, of not coming home the same man or woman you left. When the time comes and he has to leave I'll make the sacrifice and let him go. He'll leave behind his family and friends, knowing full well there is always the potential of making the ultimate sacrifice. The overwhelming emotion I and thousands of others will feel, will be no different than what so many have felt for hundreds of years. It is sacrifice.

We wear our poppies on November 11th to show we remember the sacrifice, that we are thankful and appreciate the sacrifice, and that we will honor our given freedom by achieving all we are meant to. November 11th marked the end of one war, yet many still rage on.

War is a part of our lives, an industry in our world and for the rest of our lives Canadians will take up the fight. Take the torch from failing hands, hold it high, and we keep faith with those who die by remembering the sacrifice, honoring them with free lives well lived, and wearing a poppy every November 11th.

When my mother was 12 she wrote the poem, "Why I Wear a Poppy." It is now displayed in every Canadian Legion, as well as our family home. Remembrance Day has always been a part of my life. Remembrance Day will soon become every day of my life, just as it already has for thousands of Canadian families. So this November 11th, take a moment, pause for thought and prayer and take in the gravity of the gift we have been given. For if that poppy wasn't on your chest, you wouldn't have grown from the innocent child on that hard gymnasium floor into the free person you are today.

Lest We Forget.

Letter From the Editor

Driver Responsibility in Roundabouts

JON MARTIN
EDITOR-IN-CHIEF

Hey everybody, I hope Hell Week went well, or is going well, if you are still in the midst of it. As of writing this editorial I still have one more midterm tomorrow, then one on Thursday.

My editorial this issue may end up being kind of preachy and mostly a rant, but here it goes - Driver's share resposnsibiliy on the road, its not the just the Region's fault.

Most people have probably read or at least heard about the recent roundabout design and safety concerns that have come up in the Record in the last couple weeks. I want to first clarify that I have great sympathy for Cassie Lam, the girl who was hit at the Homer Watson/Block Line roundabout on October 7th. She and her family have a long road ahead of them and will need support from the community and others for many years to come. I think this accident shows that the Region of Waterloo has a long way to go towards the successful implementation of roundabouts, but they are taking the necessary steps and trying to innovate instead of just paving every natural surface on the planet.

I personally believe that roundabouts can be much safer than intersections, especially for vehicles, but also for pedestrians if the proper design is implemented and education is in place. One of the biggest benefits of roundabouts is the drastic reduction in head-on and T-bone type collisions, because of the direction of travel and the reduced conflict points. In a roundabout all traffic is circulating in the same direction (hopefully, otherwise those videos from the region aren't working to well), so most accidents are side-swipes and rear-end collisions resulting from people entering or exiting wrong. Newspapers commonly report the vastly higher number of accidents at roundabouts, blaming the intersection design or the region, but not the drivers. People are inherently resistant to change, also I think there might be a bit of a "why do we need a European solution, our intersections work fine" attitude in a lot of people.

Circular intersections have in fact been used in North America in the past, but many were removed because of flaws in the design. This is where some confusion stems from now, as the region is installing roundabouts, not traffic circles or turning circles. The difference between the designs is in their size and priority controls. Traffic or turning circles can be used for small residential interesections as well as large intersections, but they all have a distinct difference from roundabouts - the traffic in the circle has to yield to traffic coming into the circle, or there are also individual priority schemes for some circles. The inherent flaw in this system was that a traffic circle could fill up to capacity, and become completely grid-locked because nobody in the circle can get out as everybody outside the circle is trying to get in. Roundabouts on the other hand give priority to people circulating within the intersection, while people entering have to yield. This ensures (theoretically) that traffic should always keep moving and a roundabout should not become grid-locked. I said theoretically, because a lot of people seem to view yield signs the same way they view amber lights - speed up and try to beat the light. People seem to view the yield sign as meaning 'go whenever you want, this isn't a stop, so anything goes'. I think this is why we have so many accidents in roundabouts, people don't think they need to be taught how to go through them, so they don't look at the instructional videos. Then they hear about accidents and blame the region for introducing these new-fangled intersections. People cut infront of circulating traffic instead of yielding, they drive through the intersection much higher than the design speed (which is posted), they try to pass other vehicles in the roundabout (which is illegal), and they speed up as they leave to beat the other guy exiting, right as they approach the pedestrian crossing. Wow, no wonder we see so many accidents. Maybe the drivers in Europe really are better than us, they definitely seem to understand priority more.

Maybe roundabouts do need to have the pedestrain crossings moved farther away from circular traffic, I don't know. Maybe drivers need to slow down, respect that pedestrains are people too and have a right to cross the street. People need to realise that the difference between going through the intersection at 20kph above the limit will only gain you a few seconds down the road, but could cost you a lot if you hit another car or a pedestrian. Take your time, learn how to use roundabouts and respect everyone around you, on the road and on off. Hopefully that wasn't too preachy, see you next isue.

The Future of Gaming

Truncated (Jacob Terry - Your Wordcount is Too Damn High!)Edition

Another extremely short article for this issue, but it is also me complaining about how people approach technology and personal choice, so it fits with the editorial page.

Over the years of writing this column I have had many people ask me for advice on buying a console, basically asking the 'Which system is better question'.

My answer has always been the same "Well, what kind of games do you like to play?", and I think that is what more people need to consider when they are going to buy a gaming system, or post on a blog when someone posts about their favourite game. Everyone is entitled to their own opinion, so if you don't like the game - Who cares, don't read the blog if it bothers you that much, just leave. This should also be applied to all types of tecchnology and other products, phones, tablets, books, etc.

Right now a big topic of debate (or flamewars in the case of the internet) is smart phone type - mainly iPhone vs. Android. In both camps there are people who would probably engage in a fight to the death if you argued with them for too long. Of course there is the never ending fight between Mac and PC, where Mac went so far into passive agressive attack with their commercials that they created a whole genre of "I'm a..., and I'm a...." commercials.

Just like everybody else I am guilty of making jokes about people's computer choice, but they know I'm joking. When I bought a tablet I considered the iPad, then bought something that suited my requirements better, for a better price. Same with the phone, it isn't the name or the popularity of the phone I care about, its what it can do. I hate reading fanboy sites - I mostly avoid them entirely by this point, but then there are the people who come onto generic tech sites, read an article about a gaming innovation by one company and they just have to post that that company sucks. Why? Does it serve to inform anyone? Will it sway someones opinion of what product they were going to buy purely through its incredible eloquence? I'm guessing no for both questions. So, in the end the point is to respect other people's opinions, don't force your own down people's throats, and just ignore the idiot who tries. Keep on Gaming!

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Jon Martin

Assistant Editors
Cailin Hillier
Jacob Terry

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Contributors
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Mike Raymer
Owen Coutts
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Off-Stream Editor-in-Chief
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Mail should be addressed to *The Iron Warrior*, Engineering Society, E2 2349A, University of Waterloo, Waterloo, Ontario, N2L 3G1. Our phone number is (519) 888-4567 x32693. Our fax number is (519) 725-4872. E-mail can be sent to *iwarrior@engmail.uwaterloo.ca*

Midnight Sun Meets Its Match Down Under

ANGELO ALAIMO
4N ELECTRICAL

The World Solar Challenge wrapped up in Australia last week where over 35 teams raced solar vehicles 3000 kilometres from the north in Darwin, through the Australian outback to finish in the south at Adelaide. University of Waterloo's own Midnight Sun Solar Rayce Car team was there to represent the University to the world.

Team members travelled over 25 hours by Airplane to reach the Northern Australian city of Darwin to meet their Car which had been shipped out in a container back in August. After safely arriving in Darwin, the team was relieved to discover the crate had arrived intact with the car in one piece. Although the team had just arrived, they had mountains of work ahead of them before the race only a few days away.

The vehicle has a custom-built electrical system that connects the solar panels through power electronics to one of the more crucial components - the battery pack. Due to air shipping regulations, the battery pack, a custom built component consisting of many separate lithium cells, had to be disassembled prior to shipping. On the first night, the electrical team pulled an all-nighter to re-assemble the battery pack which took hours and hours of careful work.

The team continued putting together the car to make sure it was fully ready for scrutineering by the WSC officials. Scrutineering ensures each team's vehicle meets the general and technical regulations of the race. The technical regulations are very specific for both mechanical and electrical systems. For the electrical systems, WSC officials check that each battery is built to regulation and the solar collecting area of the vehicle does not exceed the maximum allowable for the competition. As safety is always paramount, each car must conform to road regulations.

The team was in the first round of scrutineering, for which they were not fully ready. As such, the team had many small items relating to the vehicle that prevented it from being fully cleared to race. After another day's hard work, the car was re-scrutineered and the car cleared all remaining items on the official's list.

After being scrutineered, the team spent their fifth day in Australia finally testing their vehicle and getting drivers trained and adapted to the new car. It was close to two months since the team was last able to get the car rolling since it was shipped from their workshop in E5.

In order to determine starting race positions, each team completes a speed trial at the WSC solar testing track called Hidden Valley. This speed trial is crucial to getting a head start on the race, as each team is started spaced apart at the start line to prevent major disruption on public roads caused by 37 chaotic solar cars trying to pass one other. Adding to the challenge, the WSC only has one start time for everyone, thus if a team starts 15 minutes late from the main start time, they are already 15 minutes behind in the race.

On the first race day, the Midnight Sun was 17th out of 37 cars to start based on their speed trial lap time completed a day previous which put them 11 minutes behind the lead car at the start. Once the race commenced and the Midnight Sun vehicle was finally on public roads for racing, the team was incredibly excited for the dramatic moment after working on the vehicle the past 3 years.

The team pushed the car's limit a bit on the first day with cruising speeds ranging from 50 to 60kph, but after 2 hours of driving, the vehicle started swerving madly due to a deflated rear tire. After a quick wheel change the vehicle was back on the road, but the problems did not stop there. Around an hour after the wheel change, the solar car stopped and the driver could not get the car moving forward. Air within the brake lines had expanded due to the extreme heat reaching 38 degrees Celsius, which fully closed the brake callipers. The team lost much time fixing this issue but was able to travel 280 km on the first day.

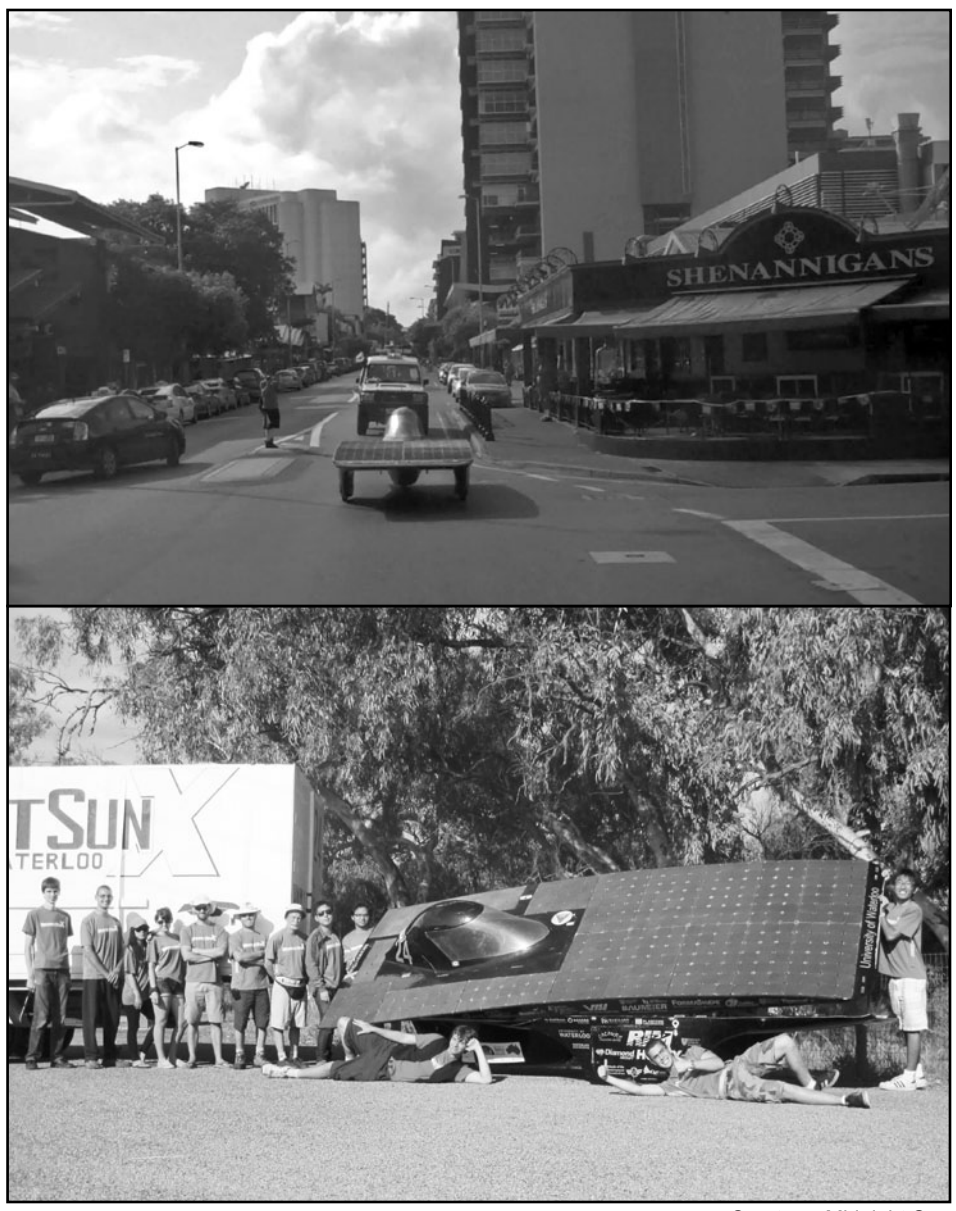
On the second race day, the team had finally reached its first control stop. However, soon after the battery pack, which had been practically built in the days following up to the race, reached a dangerous state for the car to be driven any longer. Desperate and frustrated, the team eventually had to trailer the vehicle to the next control stop. In the meantime, the electrical team had to determine why the battery pack was not able to hold a charge and why the solar array was not effective in charging the battery.

The trailering continued until the control stop of Tenant Creek where a bush fire further up the road stopped the entire race from progressing. Many teams were held back at the stop and the top teams were forced to the side of the road further ahead until the highway reopened. The bush fire incident greatly favoured Midnight Sun as the team took the car off the trailer and started charging during the waiting time, enabling the team to get their battery up to 90% of capacity.

On the fourth day, the team finally arrived at their next control stop of Alice Springs, which marks the halfway point of the race route. Near the end of the 4th day, the team was forced to trailer again as it was not possible to put in another 1500km with two days left in the race.

On the fifth day, some teams had already reached Adelaide, but for the rest of the team's left on the road, the weather was against them. Rain and thunderstorms were not conducive to racing solar cars so many teams began to trailer their vehicle the rest of the distance to Adelaide. At the end of the race, only 7 teams out of the original 37 were able to travel the full 3000 kilometres fully powered by the sun.

The team continued to trailer up until around 100 km before the finish line, allowing the battery to charge and to roll into Adelaide on the car's own power. As of press time, final times and placement are still being tabulated, but over the course of the race, the Midnight Sun travelled over 1100 kilometres powered by the sun which puts them in a place of 30th overall. A tough drop compared to the last WSC where the team was able to complete the entire 3000 km trek and finished in 9th position overall. However, the number of entrants in the race has almost doubled from 19 to 37 since 2007. The compounding factors of a problematic electrical system along with much-less-than-ideal weather really worked against the team in this race, but the team continues to look forward to being able to prove the competitiveness of the Midnight Sun X at their next solar race event.



Courtesy, Midnight Sun

Midnight Sun X driving through the streets of Darwin (top), and the team shows off their car in Adelaide, Australia at the end of the race (bottom).

The Pros and Cons to Losing Bodyparts

LEAH KRISTUFEK
1A CHEMICAL

Accidents happen, that's life. For those of us with inquisitive minds, accidents can happen more frequently than for others. Sometimes it is just a knock on the head but other times we end the day with a couple parts less than we started out with, parts that can or cannot be replaced but will never be the same again. Here are some common body parts that are lost through the course of our lives and the pros and cons to each;

An ear: Pros; you have joined the ranks of George Weasley in your saint-like holiness, get it? You are hole-y! Cons: The resemblance to Voldemort is more pronounced. In all seriousness the lack of ear seems to suggest that you have a real knack for injury. Time to step away from those explosive chemicals!

Teeth: Pros: It shows you are willing to jump in to any situation head first. The most likely causes of tooth loss are Pub related incidents, so your loss of teeth will identify you as a lover of good times. Cons: the structural integrity of your teeth has been compromised forever. Bring on the dental reconstructive surgery! Also your teeth stop matching over time, so much for that perfect smile!

Index finger (and other fingers too): Pros: All the cool people are missing a bit of a finger. Really, who needs all 10? Among those short at least part of a finger are Fellowship of the Ring's Frodo Baggins, Grateful Dead's Jerry Garcia and Star trek's James Doohan (Scotty) and Black Sabbath's Tony Iommi. Loosing fingers means you are out there tinkering. Tony Iommi even made himself prosthetics to keep playing his guitar! Cons: No pain, no gain! (Note: as cool as being fingerless is there is nothing to be gained from purposely severing a finger.)

A Foot: Pros: No more obligations to engage in serious exercise. Prosthetics have gotten really good so you can almost go about life like normal. Rolling an ankle seems less likely now. Cons: You are missing a foot. Those things are really helpful for getting around on, especially if you are on uneven terrain.

A leg: Pros: So you thought you had lost your chance to run a marathon. Think again! New prosthetics have broken from the traditional appearance to instead give you the ultimate comfort and mobility. It may not look like a leg but it has been designed to work just as well as one. So it may take a bit of getting used to but a marathon is not a far off possibility. Paraplegics are beating able bodied runners all over the place! Cons: That's a pretty big chunk of yourself to lose. Waking up you may still think you have a leg.

Becoming wheelchair bound: Pros: You are already at Waterloo, and we probably like you. You are going to have the most tripped out wheelchair imaginable! Gadgets are kind of our thing so life may be slightly easier for you because of that, not to mention that Stephan Hawking now has quite a bit in common with you. Cons: Shit just got real. Life, during and after recovery, will be tough so how about we all keep ourselves safely in one whole functional piece?

We all know our lifestyles leave us in danger of injury and disfiguration. Be careful, stay safe, and remember that if you do lose a limb, it isn't the end of the world, just the beginning of a slightly new one.

T Cubed: Lumia and Nest Successfully Impress

JACOB TERRY
2A NANOTECHNOLOGY

When Nokia announced they were killing their flagship Symbian operating system and putting Microsoft's Windows Phone operating system on all their smartphones, there was a great deal of skepticism concerning Nokia's decision, as Symbian was the world's most used smartphone operating system at the time, and Windows Phone was a recently rebooted version of Microsoft's Windows Mobile, struggling to find marketshare. Nokia's announcement of their first Windows Phone smartphones last month have made many observers, including myself, reconsider Nokia's insanity. Symbian was and is a dying operating system, becoming more relegated to feature phones and developing markets. Nokia's new smartphones look incredible enough to compete in mindshare with Apple, HTC, RIM and Samsung.

To carry Nokia into the post-Symbian world is the Lumia 800, their flagship Windows Phone smartphone. The Lumia 800 looks remarkably like the Nokia N9 they released earlier this year in overseas markets, which runs the MeeGo operating system. While the future of MeeGo seems questionable as Nokia has committed to putting all their phones on Windows Phone in the future, the Lumia 800 offers the beautifully crafted Nordic design of the N9 hardware with the secure future of Microsoft's Windows Phone software. It reportedly has impressive voice quality and a camera with a high resolution Carl Zeiss lens on the back, wrapped in a minimalist yet vibrant shell that showcases the best of Nokia's design.

The Windows Phone features combine with Nokia's standard applications to bring Lumia 800 users what they see as the best of both worlds. Xbox integration, free 25GB Skydrive storage and Office integration are competitive components of Windows Phone that help Nokia keep some features on par with what's offered on Android and iOS. Nokia Drive, one of Nokia's exclusive applications, offers full voice guided navigation for free. Nokia Music is a free service which lets users stream millions of songs and have music available to play offline. Nokia's third exclusive application is an ESPN sports hub, which lets you pin leagues or teams directly to the home screen to follow what they're up to.

Nokia's new Lumia 800 sporting the Windows Phone operating system

Nokia also announced the Lumia 710, a cheaper Windows Phone with the same processor and memory as the Lumia 800. It's not as technically or visually impressive as the Lumia 800, but will make Nokia's Windows Phones more accessible to lower price points. The other line announced by Nokia, the Asha, is a set of touchscreen feature phones running S40 that is marketed towards developing markets to push device usage in those regions.

The Lumia series looks like it could start rebuilding Nokia's marketshare, especially in North America, where it is struggling the most to keep relevant. Unfortunately, much like with the N9, the Lumia 800 and Lumia 710 have no set timeframe for release in North America, which is disappointing considering how well they could do here. The Lumia 800 in particular is just the kind of phone Nokia should be looking to release here.

For phones that we can buy in Canada, there are some interesting developments from RIM and from Google. At their DevCon event in the latter half of October, RIM announced BBX, an operating system that brings RIM's smartphones, tablets and embedded devices under one platform. The BBX browser's code is the same as that on BlackBerry 6 and BlackBerry 7, which allows it to run HTML5 and WebWorks apps developed for RIM's older operating systems. BBX also allows development in Native SDK, Adobe AIR/Flash. Applications developed in HTML5 are billed as lower performance but more compatible with earlier BlackBerry operating systems, while those made in Native SDK are billed as higher performance. Going off RIM's presentation, it looks like both methods outputted smooth animation in the applications demonstrated.

Naturally, RIM is playing off its strengths by pushing how secure BBX is, and how it strengthens what they've developed for the PlayBook, which was the first tablet certified for American government use. It also carefully championed its successes with BlackBerry App World, claiming it is the second most profitable app market (presumably after the App Store).

See T Cubed on Page 10

POETS

MOVIE SCHEDULE

SHOWINGS BEGIN AT NOON

Wednesday **Nov. 2** **Hey Arnold!**	**Thursday** **Nov. 3** **Scrubs** **Resume Critiques** **5:00-7:00** **Coffee House**	**Friday** **Nov. 4** **Two and a Half Men** **Spirit 2016**	**Monday** **Nov. 7** **Die Hard Marathon** **How I Met Your Mother**	**Tuesday** **Nov. 8** **Austin Powers Marathon** **With Respect To Time** **5:30-6:30** **GLEEPO**
Wednesday **Nov. 9** **Will Ferrell Marathon - Anchorman, Talladega Nights, Stranger than Fiction, Elf**	**Thursday** **Nov. 10** **Beerfest** **Hot Tub Time Machine** **The Wedding Crashers** **Pineapple Express**	**Friday** **Nov. 11** **Open Mic** **Pubcrawl**	**Monday** **Nov. 14** **The Terminator Marathon** **How I Met Your Mother**	**Tuesday** **Nov. 15** **With Respect To Time** **5:30-6:30** **GLEEPO**

The El Naño Effect

Head In The Clouds

ZAC YOUNG
2A NANOTECHNOLOGY

In Canada, we have one of the most diverse spectra of climate across our country from north to south, east to west. We are also home to some of the most dynamic weather in the world. Given both of these facts, it isn't easy being a meteorologist in Canada and on many days even the most complex computer model won't beat some good intuition…or a coin flip. Nevertheless, we tune in and take the meteorologist's word for the day ahead. We curse them when they leave use soaking in a surprise rainstorm and jeer them when glorious rays of sunshine shoot down depressing calls for overcast and drizzle. Are you boiling in that sweater you grabbed today? Freezing in your t-shirt and sandals? We've all been there and we all know how that smiling face calling our day can quickly become an angel or demon by the hands of Mother Nature.

While the long term forecasting is something that will likely remain a volatile and unreliable source of high expectations and dashed hopes for a warm and sunny weekend, the day-to-day forecasting can be a little more accurate. To avoid feeling being cheated by the weather channel's call and perhaps gain a little magic shaman foresight to impress your friends, why not try calling the weather on your own? Temperature, of course, isn't something that can predicted using just your own five senses, but decided whether or not the grab the umbrella might not be as tough as you think.

Clouds. Day-by-day they float by, some puffy and white, some thick and gray, bringing rain, shade and your daily attitude. We can lie in the grass and stare up at them, letting our imaginations run wild with what each shape resembles. We can also look up to them and make our own precipitation and sunshine forecast. There is a wealth of knowledge locked into each cloud that can give us clues as to what is to come. By understanding what each cloud is expressing, you too can make a good guess (in some cases better than the weatherman) as to what lies in store for the next day or two.

First though, one must be able to speak the cloud lingo. Clouds can be broadly categorized into high, middle, low and those with vertical growth. Clouds are also described by their shape; cumulus are the puffy, heap-like clouds and stratus are long, streaky clouds. We also use the description nimbus to describe rain clouds, since they are easy to spot (and feel). There isn't space in a column to include a picture of every cloud type, but a quick search on the Internet should be sufficient to supplement these general terms.

Now onward to what each cloud is saying. Let's begin with the high clouds (16k-43k feet), composed of ice crystals and not sunlight blocking. We may observe cirrus (thin, wispy streaks), which usually means clear weather presently, but a change in the weather within 24-36 hours. The streak direction will show from where the incoming front is approaching. Cirrocumulus (clumps of arranged streaks) most often means more fair weather ahead, however they can be tied to approaching tropical storms at lower latitudes. Cirrostratus (translucent, streaky blanket) means incoming wet weather in the next 12-24 hours.

Descending towards Earth, we encounter the middle clouds (6.5k-23k feet), a mix of ice and water that usually blocks out the sun. Altocumulus clouds (fluffy white-grey sheets, high contrast) mean that there will likely be a thunderstorm in the afternoon. Altostratus clouds (grey-blue sheet over whole sky) usually immediately precede a storm or rain, so grab your umbrella fast.

The low range clouds (0-6.5k feet) are those that you walk through in a fog or climb towards in skyscrapers. The first type, stratus (appears as elevated fog), lends itself to like drizzle or flurries and often begins its life as fog on the ground level. Stratocumulus (low, clumpy and grey) usually forms in patches or lines not filling the sky and not bringing any rain. Nimbostratus (flat sheet of constant grey) on the other hand, is your standard rain cloud. If you see it overhead, chances are you are also wet.

The last kind we outlined, which have the potential to make you soaked to the bone, are those with vertical growth (bottom 5k, top 50k feet). Cumulus (the standard puffy cloud), while nice to dream about, should be carefully watched. If they remain relatively low level, the change of rain is low and you can dream on all afternoon. Any vertical growth, however, is the call of a growing storm. These growing cumulus become Cumulonimbus (anvil shaped, enormous), the bullies of the sky. The long edge of the anvil top points the way the storm is moving, and those places had best seek shelter. These clouds are responsible for some of the strongest hail and thunderstorms, bringing tornadoes in extreme cases.

With all of the cloud types covered, making your own forecast is relatively simple. Peer out the window and run through the criteria and appearance of each type to see what you are dealing with. Watching for a moment to see the growth and speed they are tracking across the sky will help you know whether or not you need to run for the umbrella immediately or just pack it for later. Through these relatively simple observations, you too can keep yourself dry and safe from whatever nature throws at you. There are many other types of unique clouds, which you may see on the odd day. Look them up and see what it is that is making the sky the way it is. In today's world where we rely on a constant stream of information to live out our daily lives, it is refreshing to stop for a minute and make some observations on your own, without a forced smile from the weatherman and some cheesy elevator music. With your new knowledge, take the opportunity to better understand what Mother Nature has to say to you!

Penguins Ditch Tuxedos

Donning Wool Sweaters in Wake of Oil Spill

NINA FENG
1A ENVIRONMENTAL

Considered the worst environmental disaster in New Zealand history, efforts are still continuing to lessen the effects of the oil spilling out of Rena, the container ship that ran ashore October 6th on the east coast of the country's North Island.

It has potential to be an ecological catastrophe, affecting much of the coastal and aquatic wildlife. New Zealand is known for varying species of seabird living and raising their young along its coasts. Since it's springtime in the southern hemisphere, water fowl such as cormorants, petrels, and penguins are in the midst of mating season, which is especially true for the Little Blue Penguins ('fairy penguins'). The penguins are vulnerable to the oil, as they often swim through the now-contaminated water, and many of their number have already been found with their feathers drenched in oil. Over 120 oiled penguins and several cormorants have been taken to a wildlife centre in Tauranga Harbour, 20 km from the crash site, for recovery and clean-up. One problem is the penguins' habit of preening their own feathers. Birds who attempt to preen their feathers are in danger of ingesting the oil and falling ill. To prevent this, local knitting shops and knitters worldwide have been called to make tiny, penguin-sized wool sweaters to both keep the penguins warm during their recovery, and to keep them from preening their feathers. The idea has been enormously successful thus far, with the penguins looking cute and healthy in their little sweaters. Though the original demand for the sweaters was urgent, the number of sweaters received has been overwhelming, with enough for the hundreds of more birds who are expected to be treated in the coming weeks. The birds will be released when conditions improve.

Despite the success in saving most of the wildlife, the oil spill has still dealt quite a blow to their population and overall health. For example, in order to save the Little Blue Penguins themselves, volunteers and clean-up crew are essentially removing them from their nesting area, allowing their clutch of eggs to die. It is an unfortunate but unavoidable fact. Untreated, the penguins would likely die and feed oil-contaminated foods to their chicks. Also notable is the contamination of feeding grounds for the New Zealand dotterels, who are nearing extinction with only about 1300 birds left. In the ocean itself, marine animals including seals, dolphins, and various whales live and migrate through the area in which the oil is rapidly spreading, and are also in danger of becoming oiled, especially if the oil enters their blowholes and into their lungs.

For this reason, workers have been working since day one to build dams to siphon off the area and to contain the amount of oil already leaked into the water. Other efforts have been made to remove the remaining 450,000+ gallons of fuel oil and diesel still on the ship before the ship breaks apart and unleashes its remaining toxins into the ecosystem.

What P**5 Means to You!

ANDREW FISHER
VP INTERNAL

Do you know what P-to-the-5 is? You probably hear it throughout the halls but wonder what this mysterious conglomerate of words may be? Well P-to-the-5 (P**5) stands for Paul and Paula Plummer Participation Points. P**5 is a term-long competition between all on-stream classes with the purpose of encouraging friendly class competition, promoting EngSoc event participation and rewarding spirited and involved classes.

Every time someone from your class attends an EngSoc event, volunteers to help with a service, has a class name and many more, your class gets points to add to your term total. The Official List of available point earnings can be found on the EngSoc Website under the 'Class Info' tab. The class with the most points at the end of the term will receive a cash prize of $500 which can be put towards anything your class wishes!

Rules:

The following are the observed rules for the P**5 competition:

1. All submissions must be made by the deadline.
2. Off-stream Society members, Graduates, Ringed or any other special group will not be represented or listed in official standings, but can earn P**5 points (to preserve the competitive spirit).
3. The official depository for P**5 points coupons and other submissions (other than electronic worksheets) shall be the P**5 Drop Box (aka Sexy Box), which resides in the EngSoc Office.
4. The P**5 competition operates with transparency. Classes are free to view the allocation of points at any time upon request.
5. The published points list is the officially used list for the current term, but P**5 directors reserve the right to award or penalize points at their discretion keeping in mind rule 4.
6. Classes that pull a prank or stunt that is deemed offensive, destructive, unlawful or mean-hearted will be disqualified.

Submissions:

Submissions can be made via the Sexy Box, directly to a P**5 director (Hassan Gondal , Patrick Mikolajczak, and Tim Bandura) or by emailing p5@engmail.uwaterloo.ca. Whatever you submit, make sure your name and/or your class is on it or you won't get any points! Below you will find a valuable coupon which your class can submit to the Sexy Box in the Orifice for Reading the IW and the Exec Reports!

Directors are Awesome!

ALEXANDRA COLLINS
VP FINANCE

Do you know who are awesome? Directors! Not only are they good at spending money, but they also put on amazing events and stellar services. It is difficult to express how much all the Executives and Commissioners value the hard work of their directors this term. Instead of trying, I will let the words of Bette Midler tell you and you can image Alessia and Owen singing it in a two-part harmony.

Did you ever know that you're my hero,
and everything I would like to be?
I can fly higher than an eagle,
'cause you are the wind beneath my wings.
It might have appeared to go unnoticed,
but I've got it all here in my heart.

I want you to know I know the truth, of course I know it.

I would be nothing without you.

What a classic. To date, we would like to thank the following directors who have run an event or service: Frosh Mentoring, Poets Managers, Running Club, EngPlay, Class Rep, Music, Resume Critiques, Environment, Charities, Arts, Shadow Day, Exchange, and all of the Year Spirit Directors. There are many more directors who are still working hard to bring you awesome times this term and I for one can't wait.

If you are to take anything away from this article, besides my great taste in music, the next time you are at an EngSoc event or service, give the directors a big THANK YOU for their time and hard work.

Student Space on Campus

ALESSIA DANELON
PRESIDENT

Let's face it, engineering demands hours of work from its students. Many programs demand 30 hours on campus per week, just in class time. That doesn't include time spent working on assignments, reports, and of course, studying.

That's why I would like to gather information from students on what you envision to be your ideal hang-out on campus. Would you like to have a second POETs? Maybe something like the Math Comfy Lounge? Or perhaps cafe style tables and seats for working and socializing? Tell us how you envision your lounge space and social study space on campus.

All you have to do is rip off the feedback form at the bottom left hand corner and hand it in to the submission box in POETs. Submissions will be collected until the issue of the next IW. You can also email ideas at any time to me at president.b@engsoc.uwaterloo.ca.

The Cup Will Be Up

YASSER AL-KHDER
VP-EXTERNAL

Gather around kids. It's story time!! Let's talk a little bit about a "sweet thing we've been doing for a year or so"; The Cup.

The "Triple-D Cup", better known as The Cup, is the trophy that is used in what is called "The Cannonball Run", a friendly competition between University of Toronto Engineering Society, McMaster University Engineering Society, and University of Waterloo Engineering Society. The purpose of this competition is to get to know the other EngSocs, build relations, foster spirit and community-building, and simply have a good time.

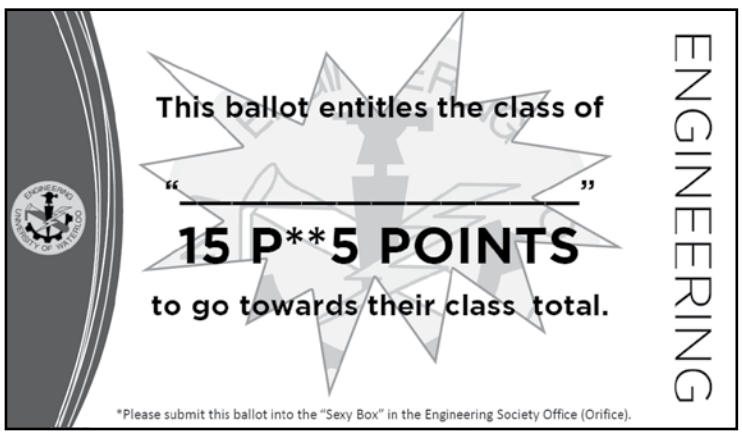
The idea for The Cup started at ESSCO AGM 2010, that's Engineering Student Societies' Council of Ontario Annual General Meeting 2010, in University of Ottawa. My memory fails me here, but I think it was Spencer McEwan, a Waterloo Engineering graduate and the President of ESSCO then, who told the delegates about this sweet thing that University of Calgary and the University of Alberta do. Basically, the university that has the cup will call the other university at any time during the term and invite them to hang out and party with them by saying the keyword; "shenanigans". At that point, the university has 4 hours to get some of its students to go all the way to the host university and have a good time. The cup is passed to the visiting university, and the whole thing is repeated a couple of weeks or months later.

Waterloo, U of T and McMaster loved the spirit behind this tradition and decided to make their own. Soon after that, the three EngSoc's created a document called "The Gran Turismo Accord" which outlines the rules of the competition. Here are some of the key points and rules:

- The competition must be held at least once per academic term
- The keyword is "The Cup is Up"
- Once the cup is up, the contesting societies must reach the host university in less than 24 hours
- The society that reaches the host first is declared the winner. If both societies reach the host within 3 hours, they must compete for the cup. The nature of the competition is up to the discretion of the host university.
- Upon a university winning the cup, much celebration shall be had, and shenanigans may be ensued
- The cup will travel back with the winner, who will host the competition the next time

And guess what? Waterloo has the cup!! That means we are hosting the competition this term. We are not saying when, nor the nature of the competition, but we might leave a few hints lying around. So keep your eyes and ears open, because it may be coming soon.

Or not.



B-Soc Exec

Left to Right - Back: Yasser Al-Khder, Alexandra Collins, Andrew Fisher Front: Owen Coutts, Alessia Danelon

Where would you hang out on campus? Give your input!

Do you think UW Engineering needs more lounge space, or social study space (not the same as computer labs)?

_____
_____
_____

How do you envision your ideal lounge/social space?

_____
_____
_____

Any further comments?

_____
_____
_____

Leave an email address if you would like to be contacted for further input

_____

Exec Contant Info:

EngSoc B Executive
executive.b@engsoc.uwaterloo.ca

Alessia Danelon - President
president.b@engsoc.uwaterloo.ca

Andrew Fisher - VP Internal
vpinternal.b@engsoc.uwaterloo.ca

Yasser Al-Khder - VP External
vpexternal.b@engsoc.uwaterloo.ca

Alexandra Collins - VP Finance
vpfinance.b@engsoc.uwaterloo.ca

Owen Coutts - VP Education
vpeducation.b@engsoc.uwaterloo.ca

What the WEEF?!

LAURIN BENSON
WEEF DIRECTOR

Hello 'B' Society! My name is Laurin Benson (3B Chemical) and I am the 'B' Society Waterloo Engineering Endowment Foundation (WEEF) Director. You may already be familiar with WEEF, and how wonderful we are, but for those of you who are not, here's the low-down. WEEF is a charitable, student-run organization which supports departmental and student initiatives which benefit undergraduate engineering. For example, when your department needs new lab equipment, they come to WEEF. When our incredible student teams need support for building the next championship car/snowmobile/robot/rocket, they come to WEEF. When the department wants an awesome new Student Design Center, they come to WEEF!

So how does WEEF work? WEEF is supported by students like you and continues to grow every term. We have grown so much in 20 years that this term we are projected to hit a principal amount of $10 million! AMAZING! Each term, WEEF contributes the interest earned on this principal to undergraduate engineering. Not only this, but WEEF contributions are determined by student representatives from each class. This Funding Council ensures that the money each term goes to the best places by having voices from all departments, years, etc. The best part is that the WEEF principal will only continue to grow, meaning that your contributions will be felt many years into the future.

This term, proposals to WEEF were due on October 21st at 11:30 pm. Departmental proposals will be presented to the Funding Council on November 1st and student teams proposals will be presented to the Funding Council on November 3rd. Deliberation and final decision-making will be made at the final Funding Council meeting on November 8th. WEEF will be contributing a whopping $60,000 this term. HIGH FIVE!

For now, keep an eye out for information about the WEEF $10 million Party! Coming soon to a CPH Foyer near you! Also, start your countdown for the new WEEF Website, launching for Winter 2012 (for which 110% credit goes to the technical genius of 'A' Society WEEF Director, Brock Kopp).

Think that your initiative deserves WEEF Funding? Want more information? Want to join the Funding Council? Visit weef.uwaterloo.ca for more information or contact the WEEF director at weef@uwaterloo.ca

Design Our Tomorrow

TAYLOR LAMBERT
1A NANOTECHNOLOGY

Calling All Engineers!

Waterloo once again has an amazing opportunity for both A-Soc and B-Soc Engineers.

Design Our Tomorrow is an inspirational TED-style lecture series featuring a remarkable line up of speakers. DOT aims to inspire the new generation of thinkers and creators, and to bring together the soon to be great innovators of our time.

The lineup for the conference this year includes notables such as:

Eric Chivian: Nobel Peace Prize Winner for his work on stopping nuclear war

Karim Rashid: Product design legend, 3000+ products in production, 300+ awards, in 30 museums globally

Aubrey de Grey: World's leading anti-aging scientist, believes we can live to 1000 years old

Edward Burtynsky: Photographer + TED Prize Winner, in 15 museums including MoMA and the Guggenheim

Ron Baecker: Interaction Design Pioneer - Creator of technologies for the elderly

Siobhan Quinn: The first product manager at Foursquare

Aza Raskin: Rethinking medicine as co-founder of Massive Health, former Creative Lead at Firefox, named 2011 Fast Company Master of Design

Greg Kolodziejzyk: Guinness Record Holder for distance travelled by human power

Raghava KK: Contemporary Artist, uses cartoonish shapes and colours to examine the body, society, and our world

Craig Shapiro: Co-founder and CEO of Collaborative Fund, Former President of GOOD

Gary Hustwit: Director of Helvetica, Objectified, and Urbanized, named one of Fast Company's 100 Most Creative People in Business

David Keith: World leading expert on geo-engineering (i.e. heart transplant for the Earth), Time Magazine "Hero of the Planet", climate adviser to Bill Gates

The DOT Team has gifted Waterloo with 50 free tickets! You can also request a free ticket directly through the DOT website.

For all A-Soc students interested in attending the conference email: harry.hall8@gmail.com. For all B-Soc students email: nan-h@live.ca. Include: Name, Student ID, Program, and Location

For more information or to reserve your ticket through the Design Our Tomorrow Website visit: http://designourtomorrow.com/

TEDxUW

SHARATH SUNDAR
3B MECHANICAL,
TEDXUW MARKETING DIRECTOR

November 12, 2011 – a day that will resound in the annals of UW history. The event of the year is on the horizon – TEDxUW will debut at the Theatre of the Humanities at Hagey Hall in just two short weeks. Scheduled from 8am to 6pm, TEDxUW 2011 is a one-of-a-kind opportunity to meet and connect with some of the University of Waterloo's most talented change-makers and thought leaders. It allows delegates to connect with like-minded students, staff, faculty and alumni, all of whom who share a burning passion for spreading and sharing great ideas.

This year's speaker line-up features a kaleidoscope of talent – from World Conquering bloggers to Youth Champion motivational speakers; from Quantum Magicians to Negotiation Artists. The event will also showcase several notable engineering alumni and faculty such as Safwan Choudhury, renowned for building a fully functional "thought-controlled" wheel chair, Philip Beesley - internationally acclaimed for his pioneering work in responsive kinetic architectural environments, and John Baker, the magnetic CEO of Desire2Learn, one of UW's earliest success stories – all of whom will be on hand to enrich the experience.

Complete with passionate delegates, inspiring speakers, thought-provoking discussions and invigorating conversations, this is a slice of UW that you've never seen before. With the full support of the Office of the President, the Student Success Office (SSO), the Federation of Students(FedS) and the Waterloo Engineering Endowment Fund (WEEF), TEDxUW 2011 will be an experience like none other.

Our talented pool of students recognized this and rushed to apply. TEDxUW received over 500 applications. Although applications are now closed, there are still plenty of opportunities to be part of this experience – the team behind TEDxUW will be hosting two official livestream parties on campus, with plenty more in the surrounding community.

In the spirit of ideas worth spreading, we invite you to be a part of TEDxUW 2011 by watching our complete livestream coverage broadcast through our website (www.tedxuw.com). As mentioned above, we will also be running two official livestream viewing parties on campus, located in the Student Life Centre and in the Davis Centre Fishbowl, where you will have the opportunity to watch our event unfold in the company of fellow die-hard TED, TEDx and TEDxUW fans.

Connect with us via Facebook (http://www.facebook.com/TEDxUW) and Twitter (www.twitter.com/TEDxUW) where we will be posting live updates both before and during our event.

TEDxUW is going to be the event of the year – don't miss out.

Media contact: Prashanth Gopalan, Chair, info@tedxuw.com

About TED: TED stands for Technology, Entertainment and Design – three broad subject areas that are, collectively, shaping our future. In fact, the event is broader still, showcasing ideas that matter in any discipline. This immersive environment allows attendees and speakers from vastly different fields to cross-fertilize and draw inspiration from unlikely places. This is the magic of TED.

In the spirit of ideas worth spreading, TED has created a program called TEDx. TEDx is a program of local, self-organized events that bring people together to share a TED-like experience.

Our event is called TEDxUW, where x = independently organized TED event. At our TEDxUW event, TEDTalks video and live speakers will combine to spark deep discussion and connection in a small group.

The TED Conference provides general guidance for the TEDx program, but individual TEDx events, including ours, are self-organized.

Dennis Ritchie 1941-2011

NANCY HUI
2A CIVIL

Dennis Ritchie, best known as the inventor of the C programming language and co-creator of the UNIX operating system, was found dead on October 12th in his home in Berkeley Heights, New Jersey.

C and UNIX provide the basis for almost all recent technology. C is the second most popular programming language today, after C++. Almost all other popular languages take cues from C's syntax and structure. Thus C and its variants are used to develop everything with a microchip, from laptops to subways to microwaves. Unix is an operating system that paved the way for the development of dozens of other operating systems, including Linux, Mac OS X, and most web servers. Results of Ritchie's work are omnipresent in modern society.

Ritchie never achieved true fame in the public eye but his legacy will live on in every tech hobbyist, compsci student, and software engineer. C, UNIX, and their derivatives are the de facto tools of computing by virtue of terseness, simplicity, and universality. Another generation of programmers will come of age and likely find themselves using the same tools as the preceding generation. Even if they do not know his name, they will aspire to the same elegance and insight as Dennis Ritchie displayed when he unknowingly laid the foundation of modern computing.

So long, Dennis Ritchie, and thanks for all the semicolons.

Upcoming Events Calendar

Wednesday November 2 Shadow Day EngSoc Meeting 5:30PM CPH 3607	Thursday November 3 Resume Critiques Running Club 5PM POETS Patio	Friday November 4 Waterloo Engineering Competition 2016 Party!	Saturday November 5 Waterloo Engineering Competition Carboard Boat Racing -Meet in POETS @ 4	Sunday November 6	Monday November 7 Charity Pancakes 8:30 POETS Foyer	Tuesday November 8 WEEF Funding Council Running Club 5PM POETS Patio	**Check out up-to-the-day event postings on the EngSoc website at engsoc.uwaterloo.ca**
Wednesday November 9 Genius Bowl 7:00-9:00pm AL 113	Thursday November 10 Running Club 5PM POETS Patio	Friday November 11 Remembrance Day Open Mic Iron Warrior Issue 4 Content Deadline	Saturday November 12	Sunday November 13 Rock Climbing	Monday November 14 Charity Pancakes 8:30 POETS Foyer	Tuesday November 15 Coffee House Running Club 5PM POETS Patio GleePO	

MOT FALL 2011 - HAL

LOWEEN CLUB POETS

T Cubed: Lumia & Nest

From T Cubed on Page 4

Interestingly, there are tools to allow Android apps to be repackaged as BBX apps relatively quickly, then submit them to BlackBerry App World for approval. This could help RIM increase their app count and compete with Apple for the platform with more applications.

RIM's BlackBerry Runtime for Android Apps is not only for BBX, but is also coming to BlackBerry PlayBook OS 2.0. The Developer Beta for the operating system update was released on the same day as the announcement, and will feature WebGL, Flash Player 11 and Adobe AIR 3 support in addition to the aforementioned Android apps. Across all devices, RIM also announced support after DevCon for BBM in all applications developed in WebWorks. This lets users initiate chats and view statuses, avatars and personal messages from the BBM service inside applications.

The announcements RIM made at DevCon are nicely timed, given that in the week before they suffered a widespread service outage. As an apology, they are offering $100 in free apps for BlackBerry users. Oddly absent at the announcement, however, were any mention of devices that support BBX. Perhaps those will be announced in the first half of 2012, but it seems odd that they would announce the operating system without any hardware to back it up.

Google also chose this time period to announce Android 4.0 (more commonly called Ice Cream Sandwich), an update for Google's OS that combines the smartphone and tablet versions of Android into one. There was an initial murmur about it at Google's I/O conversation in May, but most of the big features were announced at their event in October.

Much of the big change seems to be cosmetic, improving on the look of the Gingerbread version of Android currently on more advanced Android smartphones. Widgets can now be resized to give more space on home screens, which is useful for people who want to put home screen icons under there, I suppose. There is the ability to lock your screen and use your face as a passcode, so it uses the camera to recognize you, although it didn't work very well in the on-stage demo. There is gesture support, which replaces the navigation buttons on earlier Android phones. This is a welcome change for me, as I found the navigation buttons often redundant or unresponsive on the Android phones I've used, so hopefully the gestures (which are similar to those in webOS) make it easier to go between applications. In an effort to fight back against Siri, voice dictation is now almost instant when transcribing your speech, which should keep the voice support competitive between Apple and Google. A big feature announced for NFC-compatible (Near Field Communcation) phones was Android Beam, which is like Bump for NFC phones, allowing people to share content across devices.

A lot of the thumbnails and the contacts list in particular looks surprisingly reminiscent of Windows Phone. Home screen folders are made simpler in Android by allowing people to make them by dragging app icons over other ones, just like in iOS 4 and above. Screenshots are now native to Android by pressing the power button while pressing the volume button, much like how on iPhones you can take screenshots by pressing the power button with the sleep button. Bookmarks can be automatically synced with Chrome on your computer, much like how Safari can sync over iCloud on iPhones. So yes, those of you who claimed iOS 5 was borrowing enough ideas that it should be called Froyo for iPhone, Android takes its liberties in borrowing ideas as well, so it's not any more pure or special in its innovation than any other operating system. To its credit, many of the changes make Android less of a cheap knockoff of iOS and more something of its own, even if it takes a lot of visual cues from Windows Phone.

Android 4.0 "Ice Cream Sandwich" (Not the actual operating system)

Ice Cream Sandwich is being released alongside the Galaxy Nexus, which Samsung and Google are pushing as the flagship Ice Cream Sandwich Android phone. The phone has LTE support, a dual-core processor and a 4.65" Super AMOLED screen. From the specifications released so far, it appears to pack quite a punch, assuming Ice Cream Sandwich makes use of its hardware effectively. I'm not sure if this can be classified as a phone anymore at this size, and I don't know how people can feel comfortable using it when it's that large, but perhaps Google is going after the booming market for lumberjacks, the Sasquatch and its other large, mythical cousins who have hands the size of dinner plates. Samsung pushed how incredible the display resolution is, although the pixel density is still slightly lower than the iPhone's (316 ppi vs. 326 ppi). It has NFC connectivity, so it can make use of Android Beam. It connects to HSPA+ networks, and there will also be a version at some point that connects to LTE networks for regions which can support it. The camera may only be 5 megapixels, but is impressive in the fact it claims zero shutter lag. The Nexus is supposed to be released sometime in November, with Ice Cream Sandwich support coming in the month or two after. It seems Android fragmentation still stops Ice Cream Sandwich from successfully being released to all new Android devices in a timely fashion.

In a quick break from mobile phone news, I wanted to throw in a cool product I saw in the last couple weeks that doesn't really warrant its own article, but looks really innovative. Two engineers who formerly worked at Apple (one of which is Tony Fadell, who used to be one of the VPs of the iPod division) began a startup called Nest Labs and announced on October 25, of all things, a learning thermostat called the Nest.

While the thermostat seems like household equipment that doesn't really change that much, Nest has taken a completely new approach to the device, bestowing it with a very minimal, clean interface and encasing it in a small hand-sized stainless steel dome to be placed on your wall. A metal ring around the outside rotates to let you lower or raise the temperature, and the colour of the screen changes depending on whether it's cooling or heating.

Nest is unique in the sense that you use it like a normal thermostat, but overtime it picks up on your routine and learns to automatically change the temperature for you. If everyone leaves at around eight in the morning and comes back around five, it starts to learn to change the temperatures at those times. This is due to six sensors in the thermostat which track temperature, motion, humidity and ambient light. This means it thinks you might be away if it hasn't seen movement in a while, even if you're at home. One solution for this is installing Nests in multiple areas of the house. Nests learn independently, but can talk to each other, so if one sees movement, it will alert the other ones that someone is home. Nest can be manually adjusted online or via an iOS device, with Android support coming soon. It will be sold for $249 and Nest Labs claims it is shipping soon.

The Lumia, BBX and Ice Cream Sandwich are the newest and greatest from Nokia, RIM and Google, demonstrating new innovations and improvements in the mobile phone industry that, in the end, make things better for us. The model of the Lumia and the Nest are some of the best cases of industrial design I've seen in smartphones and thermostats, and it's cool seeing all these impressively designed electronics come to fruition. I would not have believed a month ago that I would have ever found a thermostat exciting or beautifully crafted.

The Nest learning thermostat

Something to be appreciated about technology is the speed and creativity that comes with new electronics. The announcements made in the last month do nothing short of reinforcing how impressive it can be that a device so simple and minimal can be ornate, powerful and valuable.

E Probably Still Equals mc^2

LEAH KRISTUFEK
1A CHEMICAL

After a bout of vigorous scrutiny by scientists worldwide, Einstein's well known equation E=mc^2 continues to hold true. Sadly for us, we may have witnessed the dawn of personal computers and handheld phoning devices, but we will not be witness to the next large scale breakthrough in experimental physics.

Here is a little time line:

Three years ago: OPERA, (Oscillation Project with Emulsion-tRacking Apparatus) an experiment designed to study the transformation of Tuon Neutrinos to Tau Neutrinos by sending this rare, nearly mass-less particle between CERN which can be found near Geneva in Switzerland and the Istituto Nazionale di Fisica Nucleare (INFN) in central Italy. What are Neutrinos you might ask? Neutrinos are tiny light particles produced by the sun. They are fairly unaffected by their encounters with our planet but can also be produced for experiments through several methods, the Neutrinos used for this experiment are produced by smashing protons in to graphite slabs.

September 23rd 2011: Scientists with OPERA, announced that experimental data seemed to suggest that Neutrinos had traveled faster than the speed of light. The experiment sent neutrinos underground between laboratories in Sweden and Italy in 60.7 nanoseconds less than the speed of light in a vacuum. While this caused great amazement and scepticism on the part of fellow scientists, no one could be more perplexed than the researchers themselves. Over three years, 16,111 neutrino interactions had been measured and recorded with the use of sophisticated measuring equipment including the use of GPS co-ordinates for a distance of 750km (give or take 20cm) and synched atomic clocks in the two laboratories. Rather puzzled about how they reached such a startling result, they invited others to independently test their results.

September 23rd – October 27th 2011: Members of the scientific community come back in force with potential errors ranging from an inaccurate measurements by the GPS satellites which didn't take in to account the effects of relativity to the fact that Neutrinos didn't seem to have lost any energy in their travels, a sure fire indicator that the tiny particles had not passed the speed of light. Explanations of the bizarre behaviour also include the possibility that the Neutrinos have fit themselves through an alternate dimension to make the trip in such a short time. Typically, opinions are split with some scientists feeling they have already discredited the findings in a concrete manner, while others are still optimistically hoping for a breakthrough to liven up their field of study. On either side of the debate, scientists continue to come up with an explanation for this bizarre particle behaviour with little success.

Late November 2011: Taking all this advice in to account, OPERA has been scheduled for a redo ending late November. Significant changes in their methodology include changing the length of the pulses sent between the two laboratories from 10 microseconds to 2 nanoseconds and using a new timing scheme to calculate the time each particle requires to travel the 750 km between labs. In addition to these more obvious changes to the experimental process OPERA researchers also have their calculators out and are re-evaluating factors like planetary spin and continental drift initially considered negligible for the experiment. Presumably the new trial run will be more precise in the eyes of the scientific community but it will take years to confirm or deny the results of this experiment.

Sometime 2012: An important part of proving this experiment is independent verification. Scientists at Fermilab working on the MINOS neutrino experiment hope to have results by midyear 2012 after upgrading their reactor this December.

In the end who knows whether E will still equal mc^2? Science will duke it out for awhile before we can know for sure one way or another. Perhaps two decades in to the future our children will learn not about that funny little German man's amazing theories and his equation for energy but instead study the fastest particle known to man, the Neutrino.

Student Success Office Opens

With Sugary, Colourful Tours

JACOB TERRY
2A NANOTECHNOLOGY

After months of discussion and a week promoting its primary objective, the Student Success Office (SSO) officially opened to staff, students and faculty on Friday, October 28. University of Waterloo President Feridun Hamdullahpur made a speech alongside Director Sean Van Koughnett and invited an attendee to cut the ceremonial cake. Throughout the afternoon, SSO employees donned colourful SSO shirts and gave tours of the office to those who took a visit.

The SSO is located on the second floor of South Campus Hall across from Festival Fare, replacing where the Office of Development and Alumni Affairs was located until August. The room has been completely redesigned and decorated with bold coloured lines denoting where people are in the office, reflective of the university's colourful design scheme riddled with coat-of-arms-inspired chevrons. The office is split into four subunits, each aimed at a different focus of the SSO: Learning Services, Communications & Research, Student Innovation and Student Experience.

The Learning Services unit, labelled in engineering purple, houses the Writing Centre, the English Language Proficiency Program, academic advisors and success coaching. This unit will help undergraduate and graduate students with academic issues and guidance. In the Writing Centre, certified professional tutors will provide assistance to students who want to improve the clarity of their writing for free.

The Communications & Research unit, labelled in math pink, houses the social media and student communication outlet of the university. The @uwaterloo account on Twitter runs from here as well as other official Waterloo social media accounts. The primary goal of this unit is to make it easier for students to figure out information concerning the university and how to communicate with others on campus.

The Student Innovation unit, labelled in AHS teal, houses the VeloCity head office and the Student Technology Team, a team of three co-ops and a manager who will be making apps "for students by students". The SSO claimed the types of applications made by the team are to be determined, but it is probable that it will be at the whims of the manager and students to decide what they will be working on that term. It is also possible that other departments could request their assistance in making apps for them.

The Student Experience unit, labelled in arts orange, houses the Student Development programs, the International Student Office, upper-year support and the First Year Experience program, which includes the Student Life Office, which is responsible for Orientation Week and Student Life 101, among other events. The subsections of this unit are primarily derived from units that had existed previously on campus in different buildings, but are brought together to cooperatively study student engagement at the university.

The units together aim to form a unified location for student information and success research, to see how to improve student engagement and retention rates. While it may seem like the SSO is a fresh coat of paint on old departments, the combination of these departments should make it easier for students to figure out what's happening on campus and how to get through their academic programs more smoothly.

Courtesy, Jacob Terry

The EU's Oil Trade Discrimination

NINA FENG
1A ENVIRONMENTAL

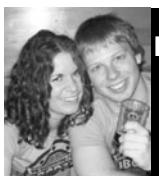
Tensions between Canada and the European Union (EU) have been running high, with the EU's October 4th proposal to add tar sands to its ranking of green fuels. The bid sets out to label tar sands as an exceptionally polluting source of oil. In provinces such as Alberta, where the extraction of oil from tar sands is a primary source of revenue, the industrial and economic effects of such a label will be a highly inconvenient burden.

It is believed that consumers hoping to reduce their carbon footprints will turn to allegedly less polluting sources of oil, putting Canada's oil exports at a disadvantage. This has sparked allegations of trade discrimination. The government of Alberta and other Canadian oil sands groups believe that the addition of oil sands as a separate category is discriminatory due to the fact that it is essentially a source of crude oil, and should be ranked as such. In Canada's case, it is also apparent that the Albertan oil sand operations have adopted many green initiatives. These initiatives include the use of hard water in extraction and various projects such as Carbon Capture and Storage, which are implemented to reduce waste, carbon emissions, and the use of resources. Worldwide, there are various ways to derive crude oil, many of which are even more carbon-intensive than tar sands extraction. To put all these more 'conventional' sources into a single category and then to single out tar sands is unfair to the tar sands businesses. The European experts have found greenhouse gas levels pertaining to the different categories, which imply that other forms of crude oil are less carbon-intensive than crude oil removed from tar sands. They have found that oil sands emit a greenhouse gas level of 107 grams of carbon per mega-joule produced, which may push consumers to import conventional crude oil, which have been assigned a generalized value of only 87.5 grams per mega-joule.

It is primarily these fears driving the desire to exclude tar sands from the ranking, or to at least modify the level suggested by the European environmental experts. From an economic standpoint, the green fuel ranking will be damaging to Canada. Britain and many Eastern European countries also support Canada's view. Estonia is displeased with the ranking system because their primary oil source, shale oil, is also an unconventional source of crude oil. Shale oil has been assigned a default value of 131.3 grams per mega-joule, and coal-to-liquid, a third unconventional source, has been assigned a level of 172 grams.

The debates have come amidst attempts between Canada and the EU to reach a free trade deal and may cause problems in reaching any sort of decision. For now, the European Union remains divided over the fuel ranking topic, and no vote is expected to be held until December.

Beer Buzz: Microbrewery SuperCollides With a Flying Monkey!



REBECCA CAMERON
4A GEOLOGICAL
ERIC COUSINEAU
4N ELECTRICAL

Hello beer lovers! This week we bring you a special article - Eric visited Ontario from BC for a weekend so we were able to have beer tasting sessions in person rather than over Skype. Naturally, we used this occasion to splurge on several special brews to look at in the next few articles. :)

In this article, we want to venture outside of Waterloo, and introduce you to the Ontario beer scene, specifically Ontario's microbreweries. It's going to be impossible to acquaint you with every microbrewery in one article, but we'll do our best to scratch the surface and help you to learn about the large variety of beer Ontario has to offer.

The most well known micro-brewer in Ontario is probably Mill St. Brewery, founded in 2002. This brewery was named after their original location at 55 Mill St. in Toronto's Distillery District, where they still operate a brewpub with seasonal and one-off brews. Since their founding, they've grown considerably to the point where most of their beer is now brewed at a large brewery in Scarborough. In our opinion, they've grown so much that they're crossing the line into becoming a macro-brewery.

Another Ontario microbrewery that you should know about is Flying Monkeys Craft Brewery. This brewery is best known for their weirdness, both in their branding and in the beer they brew. They've been around since 2004 when they were called the Robert Simpson Craft Brewery. This brewery makes some of the hoppiest beers in Ontario, including Hoptical Illusion Almost Pale Ale, Smashbomb Atomic IPA, Netherworld Cascadian Dark Ale, and the SuperCollider Double IPA that we reviewed below. They're also known for experimenting with weird combinations of ingredients. For example, we've tried their Bubble Scream Ale (bubblegum flavoured) and their 38 Dark Chocolate Birthday Cake.

So far, we've talked about two big players in the Ontario micro-brewing scene, so we also wanted to include an example of a smaller and lesser known brewery. The Lake of Bays Brewing Company started selling beer in Spring 2010, making them one of the newest breweries in Ontario. This brewer is located in Kawartha cottage country, and their flagship beer is the Lake of Bays Pale Ale. This brewery is obviously devoted to high quality beer since every time we've had their beer, it has tasted very fresh.

The 3 brewers we've talked about so far play very different roles in the Ontario craft beer scene. Mill St. is the big guy, and the name most non-beer geeks associate with Ontario craft brewing. Flying Monkeys is an established brewer that is devoted to pushing the envelope and doing things differently, which one may argue is the spirit of craft brewing. Lake of Bays is a very new brewer and consequently very unknown, but they're already in most of the LCBOs in Ontario. The Ontario Craft Brewers is a collection of 25 micro-brewers from across the province devoted to brewing quality beer. These are the local microbreweries you'll find the in the LCBO. Our best estimate is that Ontario currently has over 40 microbreweries, some of them only selling their beer at their brewery (Eg. Gold Crown Brewery on King St.). I hope this first half of our article has given you a taste of the varied beer culture we have here in Ontario.

This week, we are reviewing the Flying Monkeys Craft Brewery's SuperCollider Double IPA. It is available right now at the LCBO, as well as in bottle at Kickoff in the University Plaza. As soon as we took our bottle home from the LCBO we noticed something odd - it's abv had been stickered over and read 10.5%, not the 12.4% on the original label. It turns out that the beer was diluted after filtration, but the labels stating 12.4% had already been made. According to the president of Flying Monkeys, the next batch of SuperCollider will probably not be diluted.

The SuperCollider bottle is 650mL and it has a wonderful, striking, shiny label with lots of nerdy super collider jokes (needless to say it ended up in our collection of fancy beer bottles). SuperCollider is an extra strong Double IPA and clocks in at a walloping 160 IBUs. We are huge fans of Flying Monkeys and Eric adores IPAs so we had big expectations and this beer delivered. It is an intense dark chestnut colour and we poured it into a tulip glass to let it breathe a bit. It had a strong off-white head and left a lot of beautiful lacing on the glass as we drank it (the more lace the better as it indicates a beer is fresh). Its aroma included citrus and floral hops with a bit of sweet malt. It only had a slight boozy smell, which was surprising as we expected to smell a lot more alcohol from this heavy hitter. It was wonderfully hoppy with citrus and fruit notes along with malts in the middle and a slight alcohol taste at the end. Our verdict? Delicious. Kudos to Flying Monkeys for continuing to push the envelope in the Ontario microbrewery scene.

Interesting fact: While researching for this article we found out that Flying Monkeys brewed the hoppiest beer in the world (2500 IBUs and 13.3% ABV). It's called Alpha-fornication and was brewed this summer, but unfortunately they only brewed one 15 litre keg and 6 bottles :'(

The moral of this article? Ontario has a growing microbrewery scene that is creative and unique. So fear no beer - Ontario has great brews here!

Movies That Deserve More Love:

Five Underappreciated Horror Movies

NANCY HUI
2A CIVIL

Although Halloween has come and gone, this year has experienced pretty slim pickings in terms of horror movies. If Final Destination 5 or The Human Centipede 2 aren't to your taste and you've seen all the venerated classics that get trotted out for every 'Best Of' list, here are a few off – or underneath – the beaten track.

Horror movies are particularly difficult to recommend because tolerance for gore, corniness, and special effects failure will vary vastly. These are five of my personal favourites that nobody talks about anymore. Of course, if I weren't just counting "underappreciated" movies then Zombieland and Shaun of the Dead would have a perpetual spot on this list, but zombies are still a hot commodity right now.

Final Destination (2000)

If you've seen any of the inferior sequels, you'll already know that Final Destination follows a group of teenagers trying to avoid execution by Rube Goldberg machine by finding signs in reflections, stick arrangements, and creepy breezes.

Full disclosure – This is one of my favourite movies of all time. The original instalment is remarkably enthusiastic in its execution. The teenagers on metaphorical death row speak earnestly of fate, horror tropes, and existential crises in a way that is neither completely serious nor self aware. Somehow, as the film unfolds and the inevitable draws near, I always find myself hoping against hope that they survive.

Watch it with the original ending if you can, because the theatrical edit is deeply unsatisfying and doesn't fit the mood of the rest of the film.

Ravenous (1999)

A cowardly 1840's American soldier reassigned to a camp in the scenic middle of nowhere encounters a survivor of a botched attempt to traverse the Oregon Trail and is thrust into the Wendigo legend that consuming human flesh will grant the eater superhuman strength and rapid healing.

Ravenous performed poorly in theatres due to an awfully misguided ad campaign suggesting vampirism instead of, oh, the Donner Party served with a heap of black humour and an absolute kicker of an ending.

Watching it in tenth grade math class was an unforgettable experience.

Tremors (1990)

Perfection, Nevada, is a town of about ten people being besieged and eaten by underground creatures. Since this is in the pre-cell phone era, they're on their own.

Tremors falls toward the comedy side of horror-comedy. I'm told it's also well-loved by the paleontological community for its straightforward treatment of the monsters as forces of nature rather than as metaphors for social issues, but by now I hardly care about the whys and wherefores. For a B-movie it has a surprising number of recognizable actors, all of which seem to be enjoying themselves at least a little bit. The survivors are also surprisingly logical in their actions – you can nearly see the gears turning in their heads as they test the monsters' capabilities and systematically exhaust their escape options in a logical order.

Also, Reba McIntyre and Kevin Bacon are adorable together.

Ginger Snaps (2000)

Ginger, sixteen, gets her period and is mauled by a wild animal on the same night. Then she sprouts hair in unusual places, develops an aggressive sex drive, and grows a tail, forcing her sister Brigitte to search for a cure.

Lycantropy-as-puberty metaphor aside, Ginger's gradual transformation from goth girl to fille fatale to werewolf is as fascinating to observe as Lindsay Lohan's career train-wreck. But this is in no way Mean Girls with werewolves. Both sisters, who are cast to look as young as "they" say they are, are a pair of morbid misfits in a Canadian suburb. They stage death scenes, have a suicide pact, and plot to kill a popular girl's dog well before lycanthropic infection. But it's more satisfying that way, when nobody has a sudden mid-movie or mid-transformation change of heart. The movie keeps them bracingly true to character to lead the film to its bitter, logical conclusion.

(I felt like I was watching Heathers with more blood and less eighties hair.)

Daybreakers (2010)

In 2019, 95% of the population has transformed into vampires and the remaining humans are being captured and farmed for blood. This is clearly a very unsustainable practice. Meanwhile, a vampire researcher looking for a blood substitute instead uncovers a human resistance that might have a cure for having no reflection, being immortal, and exploding when staked.

Most of the delight is in the details of the first half of Daybreakers – trendy cafes serve 10% blood with coffee, all business is conducted in the nighttime, and SUVs are outfitted with opaque windshields prone to technical failure at inopportune moments. Everyone seems to be wearing suits or houndstooth coats. In fact, I have never seen a more stylish vampire movie. The supposed "cure" for vampirism is ingeniously symmetrical and rather ironic. But alas, all good things come to an end. The elegance in Daybreakers goes to hell when starving vampires turn into a horde of flying, shrieking orcs clad in houndstooth tatters and begin exploding. Then a lot of side characters get eaten. Twilight, this ain't.

Watch the director's cut if you can.

The 6 Year Engineering Program

REBECCA CAMERON
4A GEOLOGICAL

The UW engineering degree is intended to be five years long, but let's face it – many UW engineering students spend 6 or more years here getting their BASc. After getting back your midterms, you may be thinking that UW Engineering is not the place for you, but read on in this article and you just may find something that can give you a hand. I've failed tons of midterms, three courses, and delayed my graduation by a year (from 2011 to 2012). Along the way I learned a few things I wish I could have known sooner rather than learning them the hard way. Here they are:

1. Study skills take time and effort to acquire. I came from high school thinking I knew how to study, but really all I knew was how to regurgitate things I memorized. Unfortunately, in university it is required that you understand concepts to pass. CECS runs some great workshops on study skills and upper years may also have good advice. Those practice finals the profs post? Do them – they are up for a reason. Even if the questions don't end up on your final you are practising the skills they are looking for.
2. You are going to need to work with others to get this degree. Any discipline will have labs, assignments, fourth year projects, etc. that need you to work in a group. Get to know your classmates and who you work best with so you can put together a group that will be able to get things done on time and will provide quality work. Also, sometimes there is just too much work assigned for you to do it all on your own – if you have a study group, you can help each other out.
3. If you are injured or sick, go see a doctor. The reason I am graduating a year late is because I have tendonitis in both my wrists and was unable to write as of a year ago. This was due to poor ergonomics and ignoring my wrist pain for too long. It took 4 months of physio to fix and cost me a year. If you are injured or sick (physically or mentally) please see a doctor or counsellor as soon as you can. They can work with the Office for Persons with Disabilities to try and save your term if needed, as well as working to heal whatever ails you.
4. All work and no play will burn you out. Take the time to do something you enjoy as a break from your studies. I spent the first two years of this degree studying my butt off and was confused why my marks were poor. As soon as I started doing extra-curriculars my grades went up – I was giving my brain a chance to relax and I would be able to work much more effectively once I had taken a break for some fun. However, please remember this is a delicate balancing act – too many breaks and you won't study enough.
5. Have a good place to live in which you are comfortable. Living in a dump can be majorly stressful – I once lived in a place where things always seemed to be broken (the heat, asbestos in the basement, the plumbing, etc.). It added stress to my life that simply did not need to be there. Although it was a cheap place to live I moved to a new place that was more expensive but was well cared for. It made a huge difference in my stress levels and comfort. Considerate roomates are also one of the best housing situations to have.
6. It's okay to fail things – you are at university to learn. Failing things is part of being a UW engineering undergrad – very few people will graduate without failing something. Learning how to move on after getting a failed grade is important, and seeing that you have no idea what you are doing in a course is necessary to identify courses you are at risk in. If it's an assignment you failed, dust yourself off and work harder from that point (getting help from TAs is also important). If it's a course you failed, find out what options you have for passing that course. If it's a term you have failed, talk to your academic adviser.
7. This degree is expensive – learn where to go to find good deals on food and drinks. I take pride in my cheap shopping skills so here are a few tips. Zehrs has 10% off for students on Tuesdays, be sure to bring your WatCard. Sobeys has 10% for students on Tuesdays, Wednesdays, and Thursdays, but in general, it is a more expensive store than Zehrs. The University Plaza can be really pricey for poor quality food – watch where you go. The Engineering CnD has the cheapest coffee around – $0.50 for coffee in your own mug and $0.35 for tea in your own mug. The Engineering CnD is a not-for-profit EngSoc service, so all the food in there is sold pretty much at cost. Also, most bars and clubs will have daily food or drink deals – seek them out! Finally, never forget that it is cheapest to buy alcohol at the LCBO or Beer Store and drink at home.

I hope you have found this article to be helpful and best of luck on this term and the rest of your terms at UW!

Hands on Exotics

ABY MAHMOUD
2A MANAGEMENT

During Hell week (aka Midterm week), those who got lucky were able to relieve some stress by playing with a collection of weird animals last Saturday, Oct. 22nd. 'Hands on Exotics' was an event held in Ron Eydt Village where Seth Falk brought some of his exotic animals to the university for students to meet and interact with. Some animals that were at the event included parrots, ferrets, lemurs, sugar gliders, chinchillas, snakes, turtles, insects, and some reptiles you probably have never heard of.

Seth has always been intrigued by the unique relationships human beings have been privileged to have with all the creatures of the world. From a young age, Seth has worked with animals professionally, spending time as a zookeeper and working with rehabilitation programs at the University of Guelph. His time spent living in Central America and the Amazon has only strengthened his resolve to work with and protect exotic animal species. Seth wants to make it his life's work, through Hands on Exotics, to promote the healthiest animal-human relationships at every level, from family care of pets to conservation of endangered species.

One of the peak moments of the day was when two parrots were having a conversation, together, in English. Another fascinating event was when the lemurs inexorably hopped on students' heads, or when the parrots expressed their dislike for certain events through loud noises.

All in all, it is an experience everyone enjoyed. It was beyond fascinating to see how different exotic animals interacted with one another and with humans. I recommend every animal-lover to come out next year and play with animals you won't commonly see on the way to class.

FedS Councillors Report

FEDS ENGINEERING
COUNCILLORS

Hello once again, from your friendly neighbourhood FedS Councillors. A few updates worth noting from the Students' Council meeting are contained within this report, as well as some upcoming events and a welcome to some new faces to your FedS Councillor team.

First off, a big friendly welcome to Keegan Skoretz (2B Mechanical) and Chanakya Ramdev (2A Management) who were acclaimed as part of the Federation's fall by-law. There is still one seat vacant for Engineering, and it'd be great to get it filled up before the end of this term. Nominations for this seat can be submitted at any time, and if no other nominations are received within 7 days, this seat will also be acclaimed. It doesn't matter if you're on co-op or on-campus, anyone can submit a package! With the expansion of our FedS Councillor team, we hope to start expanding our presence and visibility within Engineering. Feel free to e-mail any of us at any time if you have concerns, questions or comments related to FedS or any of its services or businesses.

Have you been bubbled at Campus Bubble yet? Campus Bubble is a new FedS business that has opened up attached to Wasabi in the main atrium. Campus Bubble is the new bubble tea joint on campus that offers over 40 flavours, at a cost lower than the plaza. It's open from 10am-10pm Monday to Thursday, and 10am-5pm on Fridays, meaning that you can get your Bubble Tea fix late into the evening. Be sure to check it out!

Finally, the head of Communications and Public Affairs for the University came to Students' Council to provide an update on the new website redesign. If you thought the current "new" website was the last iteration of the rebranding then you'll be disappointed. A new website will hopefully be launched by the end of this term that will provide a better user-experience to key stakeholders right away, instead of requiring them to navigate to other pages or menus to access the information they want. The decision to build upon the current site was based on the feedback of over 1600 students, faculty, staff and alumni who took the website review survey over the past few months. The feedback from that survey is driving this proposal forward, so we should have a site that works for everyone by the end of this year. A very basic concept plan was presented to Students' Council; however it will still be undergoing a user-accessibility review before going live. The current concept looks like a hybrid of the old website, which provided updates on research, news and events, and the sleeker version of the website we have now. More details can be found at web.uwaterloo.ca.

Thanks for taking the time to read this report. If you have any questions, comments, or concerns about anything you've read here, or about anything else related to the Federation of Students, please don't hesitate to stop any of us in the halls, or send us an e-mail (t.ek.jenkins@gmail.com).

Good luck getting those midterms back!

The Death of Gaddafi

ABY MAHMOUD
2A MANAGEMENT

Who is this "Gaddafi" that everyone is talking about, or rather talking and posting videos and pictures of his brutal death. Gaddafi was the ruler of Libya for 42 years! Can you imagine being ruled by the same person, with the same rules and same way of life for 42 years?! This means that a middle-aged Libyan has seen only the rule of one person! So there are parents in Libya who have never used the phrase "The president that ruled in our generation…" to tell a story to their children because the president of their generation and that of their children has been the same.

Forty-two years! That's four decades! That's a long time for someone to have power! That is too much power! The only way this might be reasonable would be if Gaddafi had been a great ruler and met all the needs of his people. According to Libyans and recent events (such as protests), this is not true. Gaddafi was a terrible ruler who took advantage of his power.

Following in the Egyptians' footsteps, the Libyans started their protests against their government on February 15th, 2011. Seven months and one day later, on the 16th September 2011, Gaddafi's government was finally out of rule and replaced. For seven months, Gaddafi ordered his military forces to kill his people because they were fighting for their rights. He was merciless and cared about no one.

On the 20th of October, Gaddafi was captured by Libyan forces near his hometown of Sirte. Shortly after, he was shot dead. With today's technology, who would not take out a phone to video an ex-ruler tortured to death? Four mobile phone videos show rebels beating Gaddafi and manhandling him on the back of a vehicle. These videos show he was sodomized, rolled around on the ground and had his shirt pulled off. He had wounds in the abdomen, chest and head. A rebel who claimed to have killed him says it took half an hour for him to die. The exact cause of death is still uncertain; there are many stories to how he died. Some say he was already wounded and it was his wounds that killed him. Others say he might have been killed by one of his own men. All that aside, his body was then taken to Misrata (a city in northwestern Libya) and placed in the freezer of a local market on public display for four days. Libyans from all over the country came and stood in queues to view it and many, of course, took pictures with their cell phones.

Gaddafi was a not great person. In fact, he was a horrible person! He killed innocent people without thinking twice. For seven months, the Libyans protested innocently to get him to step down while he didn't allow anyone to get in the way of killing. But is it really fair that he died as brutally as he did? Is displaying his body for everyone to see and celebrate an 'ok' thing to do? Does posting videos of his death on YouTube sound reasonable? He should not in any way be respected or remembered but the way the Libyans approached his death, in my opinion, is against humanity. No one should die this way, but even if they did torture him after what he has done to them, the least they could do is bury him, not have his body put out for display in a refrigerator! Gaddafi should have been put in prison and killed by law. Sa'adi Gaddafi (the third son) said that he was shocked and outraged by the vicious brutality and the barbaric executions, and does not think any person affiliated with the previous regime will receive a fair trial.

The death of Gaddafi means a new, fresh, bright future for Libyans. It also gives hope to surrounding Arab countries hoping to prevail over their own unjust governments.

FEDS Arts Symposium

ARTS SYMPOSIUM DIRECTORS

Paintings. Jewelry. Dance. Knitting. Watercolours. Photography.

That's just a small sampling of what you'll find at the Federation of Students' second annual Arts Symposium on November 22nd.

The Arts Symposium, hosted by the Feds Arts Commission in the SLC Great Hall, is an opportunity for uWaterloo artists to share their passion for art, celebrate and raise awareness for artistic appreciation in society and make a little extra cash too.

"We welcome and encourage all artists to be a part of the Symposium," said Luke Burke, VP Internal of the Federation of Students. "The Symposium is the perfect occasion for our uWaterloo community to show its artistic side."

There are multiple ways to get involved with the Arts Symposium, explained Feds Arts Commisioner, Xinxin Zhang. "Students, staff and faculty can apply to sell their art at our market, perform on stage, host a workshop or informational booth to showcase an artistic talent or organization- there's so many ways to get involved."

Xinxin also noted one big change from last year's Symposium will be the way in which the market runs. "This year, our vendors will still be selling their art, but now they can also barter with their art to trade with other vendors or students."

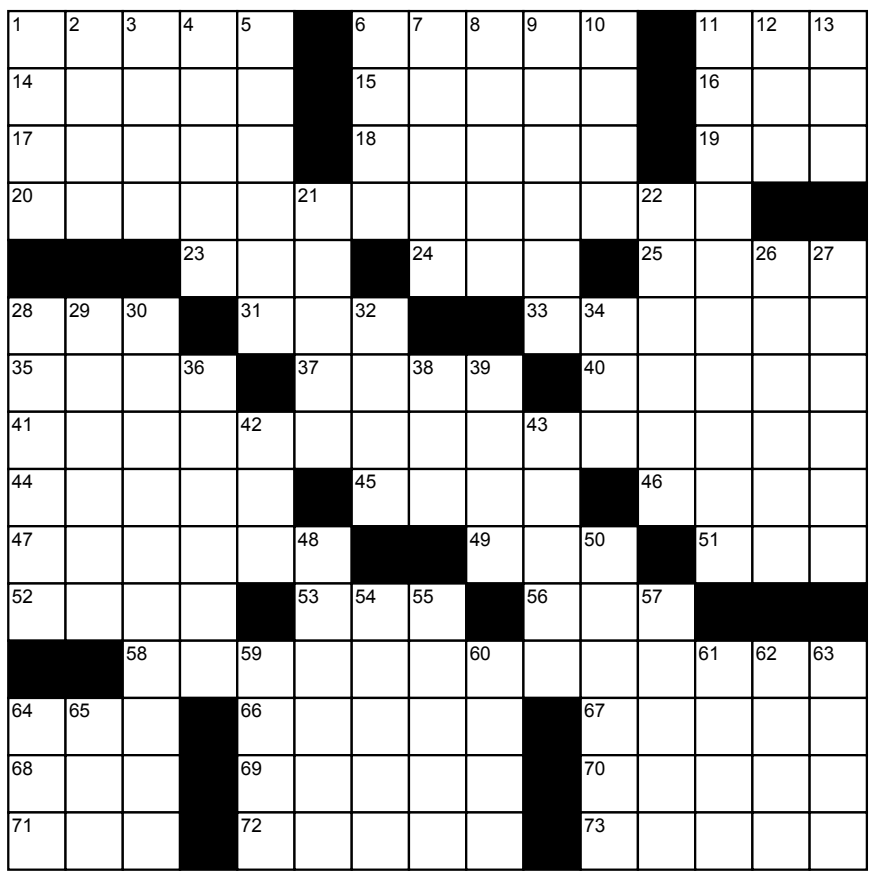
Attendees to the event will also have a chance to win door prizes from each of the artists at the Symposium.

The deadline for applications has been extended to November 11th. You can apply to be a part of the Arts Symposium at facebook.com/artssymposium or email artscomm@feds.ca for an application.

Michael Seliske

Brotorious Figures

STUART LINLEY
2T NANOTECHNOLOGY



www.CrossWordWeaver.com

ACROSS
1 Flub
6 Sci-fi weapon
11 Parent
14 Care for
15 "It's _ ____!"
16 Time or good go with, down south
17 Blade
18 Flare
19 Get more points
20 Life of the Communist Party?
23 Superior title
24 "__, _ heard ..."
25 Frag or smoke
28 Pouch
31 Snap up
33 V1 network
35 Hydrocarbon suffixes
37 Wellbeing
40 Field doctor
41 Dutch dude with mad art skills?
44 Offering site
45 Mack
46 Ditty
47 Aced
49 Type of doc
51 Sound from a puncture
52 Large text
53 Musician's asset
56 Upset
58 Boston bad-ass with a telltale heart?
64 Automaton
66 Came up
67 Juliet, in the West Side
68 Exist
69 Hobbles
70 Garde go with
71 That girl
72 Smallest
73 Dispatches

DOWN
1 Hook
2 Aroma, to Washington
3 Dorothy's pal
4 Angry
5 Henceforth, with from
6 Tie
7 Like poetry
8 Common joke component
9 Creme pastry
10 Rod go with
11 Destitute
12 King in the ring
13 Lounge
21 Type of cocktail
22 Embed
26 Condescends
27 Engraves
28 Scholar
29 Diving spot in Batangas
30 Ruler division
32 "All ____ are off."
34 Ark or alm preceder
36 Mounted
38 Caesarean greeting
39 Can be oil or gas
42 Poet's before
43 Devoid
48 Child, to grandma
50 Gangs of New York and Forrest Gump
54 Scent
55 Files
57 Rapscallion
59 Courage
60 Remembrance phrase starter
61 All or raisin go with
62 Lemon coating
63 Dinner for Dobbin
64 Scrooge exclamation
65 Mineral rich rock

Point Vs. Counterpoint

Shave Or No Shave?

POINT

ANISH BHUTANI
4N CHEMICAL

As we walk through the hallways, there are many indicators that tell us apart: Gender, race, height, and size are among the most common ones. But one, which tends to be ignored nowadays, is how we see people who have taken the time to properly groom and tidy their facial hair, and those who prefer the look of hobos or monsters.

I am, of course, on the side of the properly groomed, professional look of always being clean shaven. This is because we all live in a world where people will be judging you. Keeping a professionl appearence will always get you on the good side of anyone, whereas it can go either way if you choose not to be clean. When you go into an interview or a new workplace, having a beard or any kind of facial hair makes the people around you say, "This guy is lazy. He can't even take the time to properly shave. How do we really know that he will be able to do a good job for our company." First years, if you didn't get a job in the first round, one of the reasons might have been this.

Another reason it is important to be clean shaven is it gives a more positive image when meeting new people, in a non-professional way. Yes, I admit that there is the possibility that someone might view a guy (or girl) with a beard as mysterious, but we are in university now. Only high school girls fall for the mysterious guys, and they're underage, so you don't want them anyways.

Lastly, if you have a beard, no one will want to touch you, except maybe high school girls who have never touched one before. This is because rubbing your face against someone's beard is like having a plethora of tiny spiders crawling on your face. Even if you aren't an arachniphobe, that is still completely disgusting. It also itches, A LOT, and while I cannot deny that the slight tickle of the beard may be nice, too much will have you running away from any kind of hair ever again.

So that concludes the argument on why you should shave, and why you should never have beards. I could have gone into the argument of why chest, leg, and other areas with hair should also be shaved, but that would be an entire paper, so I will be cutting it off at this. If you have a beard, or were thinking of growing one, make sure it doesn't affect your professional or personal relationships. And if you are growing a beard for high school girls, you might want to consider getting checked out on it.

Michael Seliske

COUNTERPOINT

MIKE RAYMER
4N CIVIL

Over my past four years here I have noticed that there is a continued question among engineering students. This question extends far beyond the boundaries of Ring Road and even farther than E6. So in the spirit of Movember, I would like to tell you why it is in everyone's best interest to grow some facial hair. As someone who has had a beard and/or moustache for the better part of the last four years, I can tell you a thing or two about the benefits of having facial hair. The first and most important rule about growing facial hair is that you have to keep it clean. This means always shampooing and CONDITIONING every time you shower. No one likes a beard/moustache that is scratchy and wiry. There are no other rules when it comes to facial hair. Play around, have fun and pick something that works for you. Now I know you are asking "Why don't we all grow facial hair?" To this, I have no answer, just reasons why we should. The first is that women love facial hair. Whether it's the soft tickling feeling while they kiss you, or the idea that you could easily fight off that bear that may or may not be lurking around the next corner, people with facial hair are just that much sexier. The second is that winter is coming. Have you ever been bald in the winter? Me neither, but I have had shorter hair and I have been clean shaven in the winter, and I have to tell you that more hair is better for the retention of heat. I can only assume that had I had a beard back in the tenth grade I would not have gotten the frostbite I got under my chin. The third reason to grow some facial hair is that it makes you easily identifiable. A lot of people at social events will have a limited memory of the goings on later the next day. This means any new friends you made the night before will have trouble remembering the new people that they met, but they will always remember the person with the beard. This is also a very good thing if you happen to run into a smidgeon of trouble after said social event. A beard is a very identifiable feature, but it is also the easiest one to alter or change. This means that if the police are looking for the person with the beard who may or may not have had anything to do with removing a goat from its location in Waterloo Park, you will be safe because no one will suspect the person with the mutton chops. All in all, to all of you doing Movember, grow your facial hair with pride and spirit, and to everyone else, why not give facial hair a try? You may be pleasantly surprised with the new look.

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.

Big Things With Will Zochodne: US Debt

WILL ZOCHODNE
4A MECHANICAL

First off, my sincerest apologies for a lack of big things in the last issue. I'm not sure what happened – I've never even been to Mexico.

Let's talk big then. Very big. This is the size of the US National Debt in 100 dollar bills.

Sadly, the picture is not exaggerated. Turns out that 14.94 trillion dollars is a shitload of money. In fact that's over $132,000 of debt per tax paying citizen in the US. Or more realistically, the government needs a 497km long traffic jam of Aston Martin V8 Vantages.

Not only does the US owe money, it's losing money faster than Charlie Sheen. Picture the following scenario:

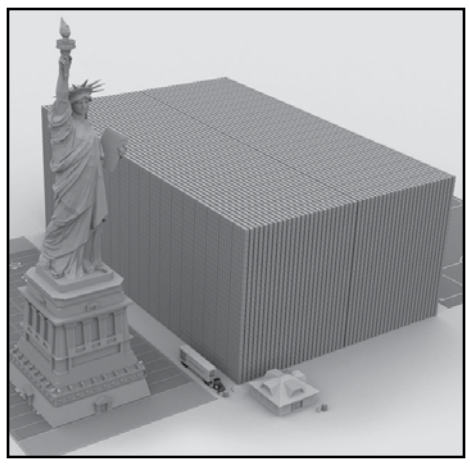
- You earn $58,000 per year
- You spend $75,000 per year
- You have $327,000 of credit card debt
- You've made massive budget cuts to reduce spending to $72,000 for next year

Now multiply these numbers by a few billion and you get an idea of what the US is trying to deal with. I'm not really sure how the US lost so much money but I have a few theories.

- All military vehicles powered by internal cash combustion engines
- Gold spinners for each of Air Force One's 18 wheels.
- Missiles made out of diamonds to remind enemies of the US how poor they are.
- Keeping the Martians at bay is expensive.

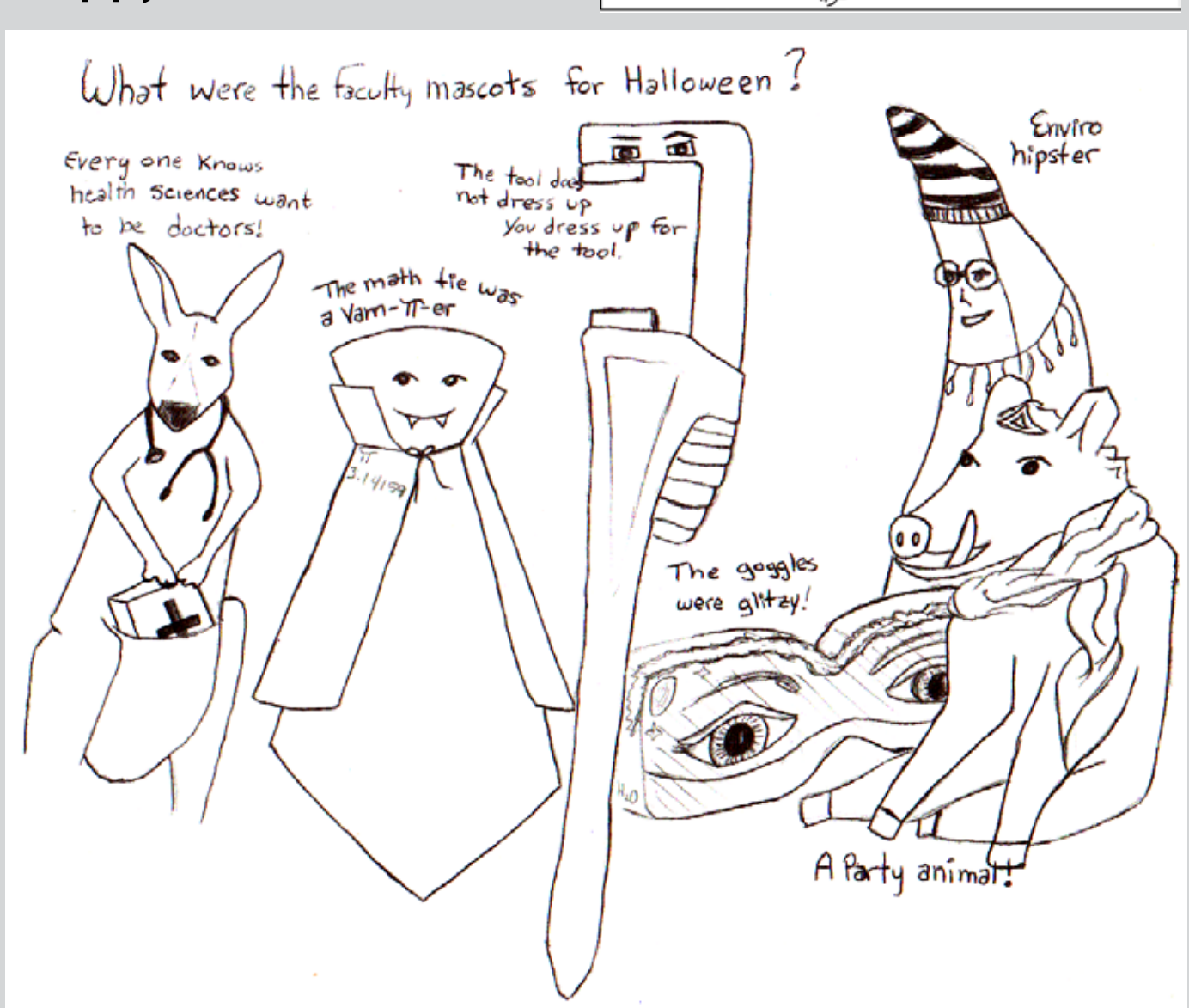
Here's the thing I don't get it. If the US is the wealthiest country on the planet, who is affording to keep the country going? How can a country that is in debt give money to another country that is in debt? Does anyone have any real money? Where is it?

Sure beats me. I guess I'll go back to calculus. Big things rock! (though not so much in this case)



The US National Debt in hundred dollar bills compared with the Statue of Liberty

Happy Halloween, From THE IRON WARRIOR



The Iron Sudoku

Difficulty: Easy

	1			6	7	4		8
	8	5				3		
	3		4				2	
6					9	2		
		4		2		5		
		9	6					1
	4				2		7	
		7				8	1	
5		1	7	4			3	

Difficulty: Medium

9	5				4			6
				5			9	7
			9		6		4	
		7	4					
3		4	7		5	2		9
					8	7		
	3		1		7			
8	4			9				
7			6				2	8

Difficulty: Hard

						9	5	
	2		1	9		4		
				6			2	8
9		6		3		2		
2			6		1			9
		7		4		8		3
1	8			2				
		2		1	3		8	
	6	3						

Challenge Puzzle

	2		7			4	5	
					3			
6			5			2	7	3
		1	9		6	8		
4				8				7
		7	4		5	1		
1	9	2			4			8
			8					
	7	8			9		4	

THE IRON INQUISITION
Hannah Higgins, 1A Nanotechnology
Leah Kristufek, 1A Chemical

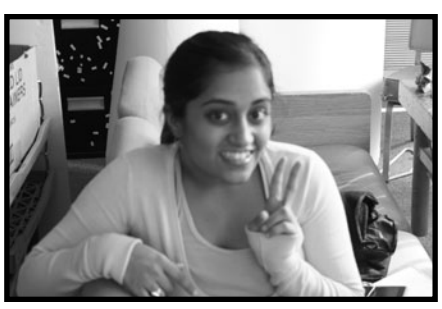
"What were you for Halloween? Or would have been if you didn't have midterms?"

We don't celebrate Halloween in Italy, so I guess I won't dress up
Lorenzo Brignoli, Enviro Masters Student

I'm not dressing up, just looking at them
Mohamed Zawam, Civil PhD

The pressure's getting to our heads - Manometer and barometer
Kendra White & Reena Paink, 1A Chemical

No costume, but it would be awesome to dress up as Xerxes Break
Alexander Romanenko, 1A Software



I can't, but I'd dress up as a viking
Janki Bhavsar, 3B Civil

I would be a sleeping ninja
Amer Abu Khajil, 3B Civil